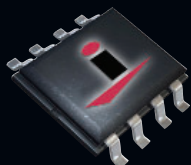


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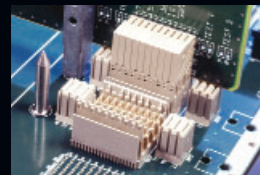
**Technically
SPEAKING**
page 28



NEW
Intersil
High-Bandwidth
Current Feedback
Amplifiers
PAGE 10



NEW
Freescale
MC9S12NE64
Development Tools
PAGE 14



NEW
Tyco Electronics/AMP
HM-Zd PCB
Connectors
PAGE 40

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GSA Schedule
Contract GS-06F-0044M



NEWARK
in one SM



TOO MUCH INFORMATION?

For designer engineers, there's probably no such thing as having too much information, as long as it's useful.

This issue's cover story, *Technically Speaking*, details the kinds of technical information and support that a top electronics distributor can make available to you.

Speaking of useful information, did you know you can sign up to receive customized emails from us when we add the latest products?

To register for this **New Product e-Alert** service, click on this box on our website homepage.

New Product
e-Alerts

As always, if you have comments about this story or any suggestions for *Current*, please drop us an email at deteam@newarkinone.com

Sincerely,

Your Newark InOne Team

Your Newark InOne Team



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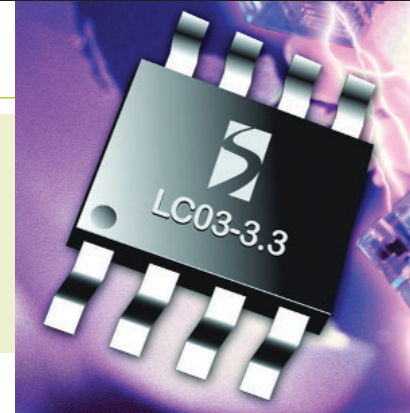
We're proud to hold
GSA SCHEDULE CONTRACT
GS-06F-0044M

GSA Schedule
Contract GS-06F-0044M

NEW DEVICES | DESIGNS

4 & 5 New Products

The latest from Microchip, Ohmite, Tyco Electronics/AMP, Semtech, Lumex and Agilent Technologies.



FEATURES

7 Robust, high pin-count, high-memory devices

10 Basic tips for using high-speed current feedback amplifiers

32 Two easy ways to create arbitrary waveforms

35 New medical power solutions meet ever-increasing challenges

44 Innovative I/O connector enables high speeds in tight spots



COVER STORY



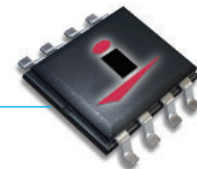
28 - 29

Technically Speaking

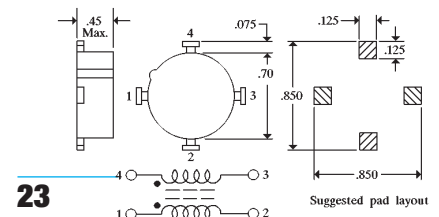
Technical support options from your distributor.

PRODUCT PAGES

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- 55** Enclosures
- 56 - 59** Electromechanical



10



NEW Items flagged throughout.

current

NEW DEVICES | DESIGNS



PIC18F Series Flash Microcontrollers

Low-power, high-speed, fully static design

Ideal for use in instrumentation and monitoring, data acquisition and power conditioning applications, the PIC18F Series offers a wide operating voltage range and a 'C' compiler-friendly development environment. Some versions are optimized for low-power consumption.

Read more on page 6.

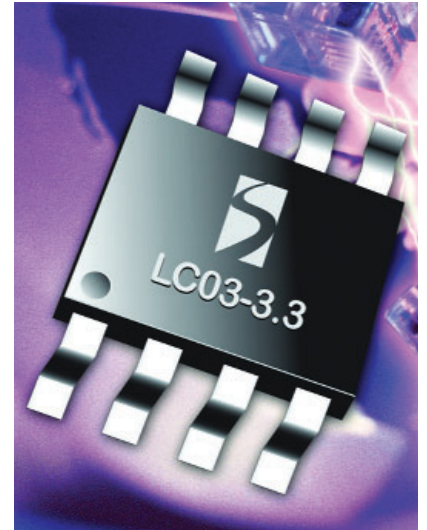


Surface Mount Wirewound Power Resistors

High-pulse tolerant design

Quality wirewound resistors for inrush current combined with low ohmic values to optimize operation performance. Available as tape-on-reel and cut tape mini-reels.

Read more on page 21.



LC/LCDA Series TVS

Low capacitance, high-speed protection

Transient voltage suppressors (TVS) provide superior surge protection from lightning and electrostatic discharge for high-speed telecommunication applications. Use **LC Series** for line-to-line protection and **LCDA Series** for multiple line protection.

Read more on page 9.



SMT LEDs

The best of Lumex, in stock today

For all your opto needs, we now carry a wide selection of Lumex's most popular products, including, SMT LEDs, Discrete LEDs, LED panel indicators and LCD Panels. Use the world-class search engine @ newarkinone.com to see our complete Lumex line.

Read more on page 25.



Agilent Technologies

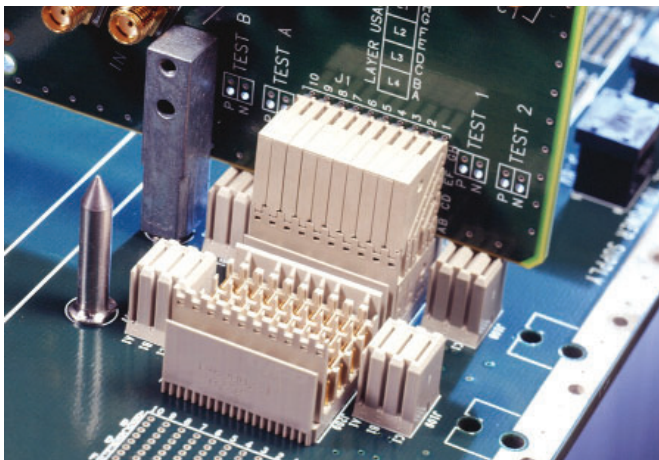
Authorized Distributor

Function/Arbitrary Waveform Generators

**Uncompromising performance
for custom waveform generation**

For design, test and verification, these 15, 20 and 80 MHz waveform generators are the new essentials for engineer test benches. They offer very stable frequencies and low distortion, AM, FM, FSK and burst modulation and built-in linear and log sweeps.

Read more on page 32.



AMP

Z-PACK[®] HM-Zd PCB Connector

Supports up to 10Gbps

Providing a serial architecture solution, this high-speed differential connector system reduces inductive effects and ground bounce, and meets the requirements of IEC-61076-4-101.

Read more on page 40.



NEW



**PIC18FXXX SERIES
FLASH MICROCONTROLLERS**

PIC18F series microcontrollers utilize low-power, high-speed FLASH technology in a fully static design. Upwardly compatible with the **PIC16C5X, PIC12CXXX, PIC6CXX** and **PIC17CXX** series MCUs. Wide operating voltage range (2.0V to 5.5V). 'C' compiler friendly development environment. 77 single-word instructions and up to 10 MIPS operation: DC 40MHz oscillator/clock input, 4-10MHz oscillator/clock input with PLL active. 16-bit wide instructions, 8-bit wide data path. 8 x 8 single cycle hardware multiplier. 31 levels of hardware stack; software stack capability. Analog features include programmable brown-out reset and programmable 16-level voltage detection module with interrupt on low voltage detection. Additional features: programmable code protection, selectable oscillator options, Power-On Reset (POR), Power-Up Timer (PWRT), Oscillator Start-up Timer (OST), ICSP™ via 2 pins. Ideal for use in instrumentation and monitoring, data acquisition, power conditioning, environmental monitoring, telecom and consumer audio/video applications. LF versions are optimized for low power consumption. 'I' suffix denotes -40°C to +85°C. 'E' suffix denotes -40°C to +125°C. More types available; visit Newark InOne online.

Type	Pkg.	Program Memory		EEPROM	RAM	I/O	ADC	PWM	Timers/WDT	Stock No.	1-24	25-99
		Bytes (Flash)	Words									
PIC18F452-I/P	40-PDIP	32768	16384	256	1536	34	8	2	1 8-bit, 3 16-bit, 1 WDT	77C5219	9.40	6.02
PIC18LF452-I/P	40-PDIP									92C5155	9.85	6.31
PIC18LF452-I/L	40-PLCC									92C5154	11.25	7.21
PIC18F452-I/ML	44-QFN									29H9707	10.72	6.87
PIC18LF452-I/ML	40-PDIP									29H9741	11.27	7.22
PIC18F452-I/PT	44-TQFP									81C8383	10.72	6.87
PIC18LF452-I/PT	40-TQFP	39C5265	11.27	7.22								
PIC18F458-E/L	44-PLCC	32768	16384	256	1536	34	8	5	1 8-bit, 3 16-bit, 1WDT	92C5072	13.90	8.91
PIC18F458-I/L	44-PLCC									92C5075	11.58	7.42
PIC18LF458-I/L	44-PLCC									92C5158	12.17	7.80
PIC18LF458-I/P	44-PLCC									92C5159	10.85	6.95
PIC18LF458-I/PT	44-TQFP									92C5160	12.14	7.78
PIC18F6520-I/PT	64-TQFP									32768	16384	1024	2048	52	12	5	2 8-bit, 3 16-bit, 1WDT	29H9720	10.75	6.89
PIC18F6525-I/PT	64-TQFP	49152	24576	1024	3840	53	12	14†	2 8-bit, 3 16-bit	61H5252	12.08	7.74
PIC18F6585-I/PT	64-TQFP	32768	24576	1024	3072	52	12	5	1 8-bit, 3 16-bit, 1 WDT	61H5258	12.97	8.31
PIC18F6620-I/PT	64-TQFP	65536	32768	1024	3840	52	12	5	2 8-bit, 3 16-bit, 1WDT	81C9057	15.90	10.19
PIC18LF6620-I/PT	64-TQFP									92C5163	16.68	10.69
PIC18F6621-I/PT	64-TQFP	65536	32768	1024	3840	69	16	14†	2 8-bit, 3 16-bit	61H5264	12.97	8.31
PIC18F6680-I/PT	64-TQFP	65536	32768	1024	3072	52	12	5	1 8-bit, 3 16-bit, 1 WDT	61H5270	13.90	8.91
PIC18F6720-I/PT	64-TQFP	131072	65536	1024	3840	52	12	5	2 8-bit, 3 16-bit, 1 WDT	89C2892	17.68	11.33
PIC18LF6720-I/PT	64-TQFP									92C5165	18.55	11.89
PIC18F8520-I/PT	80-TQFP	32768	16384	1024	2048	68	16	5	2 8-bit, 3 16-bit, 1WDT	29H9722	11.30	7.24
PIC18LF8520-I/PT	80-TQFP									29H9750	11.88	7.61
PIC18F8585-I/PT	64-TQFP	65536	24576	1024	3072	68	16	5	1 8-bit, 3 16-bit, 1 WDT	61H5280	13.59	8.71
PIC18F8620-I/PT	80-TQFP	65536	32768	1024	3840	68	16	5	2 8-bit, 3 16-bit, 1WDT	89C2893	16.13	10.34
PIC18LF8620-I/PT	80-TQFP									92C5167	16.93	10.85
PIC18F8621-I/PT	80-TQFP	65536	32768	1024	3840	69	16	14†	2 8-bit, 3 16-bit	61H5284	13.59	8.71
PIC18F8680-I/PT	80-TQFP	65536	32768	1024	3072	68	16	5	1 8-bit, 3 16-bit, 1 WDT	61H5288	14.50	9.29
PIC18F8720-I/PT	80-TQFP	131072	65536	1024	3840	68	16	5	2 8-bit, 3 16-bit, 1WDT	89C2894	17.96	11.51
PIC18LF8720-I/PT	80-TQFP									92C5169	18.86	12.09

†2xCCP's, 3xECCP's, and 14xPWMS

82747



NEW



**MPLAB® ICE 4000
HIGH-PERFORMANCE
IN-CIRCUIT EMULATOR**

Features:

- Full-Speed Emulation
- Low-Voltage Emulation Down to 1.8V (or Device Limit)
- 64K Deep x 136-Bit Wide Trace Memory
- Up to 2Mb of Addressable Memory
- Unlimited Breakpoints
- Complex Break, Trace and Trigger Logic
- Multilevel Trigger Up to 4 Levels
- 48-Bit Time Stamp
- Stopwatch
- External Output to Sync with Other Instrumentation
- USB Port and Parallel Port Connection to PC

MPLAB® ICE 4000 in-circuit emulator has the features of MPLAB® ICE 2000 but with increased emulation memory and high-speed performance for dsPIC30F and PIC18XXXX devices. Offers complex triggering and timing, up to 2Mb of emulation memory, and the ability to view variables in real time. Provides the product development engineer with a complete microcontroller design tool set for high-end PICmicro® microcontrollers. Software control of the emulator is provided by the MPLAB® Integrated Development Environment, which allows editing, building, downloading and source debugging from a single environment.

Type	Description	Stock No.	Each
ICE4000	ICE 4000 Emulator Pod Incl.: Parallel, USB Cables, Universal 5V/3A Dual Power Supply, MPLAB® IDE CD, Documentation	03H4450	2560.00
ACICE0401	MPLAB-ICE 4000 Power Supply	61H4845	50.00
ACICE0402	MPLAB-ICE 4000 Logic Probe	61H4846	60.00
ACICE0403	MPLAB-ICE 4000 Slim Parallel Cable	61H4847	40.00
ACICE0407	MPLAB-ICE 4000 Flex Cable	61H4848	55.00

PROCESSOR MODULES

PMF18WA1	PIC18F6620, 6720, 8620, 8720, 8520, 6520 ICE4000	68H9495	595.00
PMF18WC0	PIC18F2X2, 4320, 2320, 4220, 2220 ICE4000	68H9496	595.00
PMF18WD0	PIC18F1320, 1310 ICE4000	68H9497	595.00
PMF18WE0	PIC18F8680, 6680, 8565, 6585, 6621, 6525, 8621, 8525 ICE4000	68H9498	595.00
PMF30XA1	dsPIC30F ICE4000	68H9499	595.00

DEVICE ADAPTERS

DAF18-1	PIC18F 64L/84L	03H4224	225.00
DAF18-2	PIC18F 44L	68H9260	225.00
DAF18-3	PIC18F 44L PIC18F452/442	68H9261	225.00

TRANSITION SOCKETS

XLT44L2	44L PLCC PIC18F452/442	68H9608	175.00
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82753

Robust High Pin-Count, High Memory Devices

Microchip's high pin-count, high-memory PIC® Flash microcontroller family continues to expand, and now offers larger memory and data arrays, additional I/Os, 40-to 80-pin packages, the flexibility of self-programmability, and an industry-leading, feature-rich peripheral set.

This new 8-bit family is ideally suited for applications that are written in C, require an RTOS or use communications protocol stack such as TCP/IP. However, its high-performance architecture allows cost-effective embedded solutions for general-purpose applications within all market segments: automotive, industrial control, security systems, motor control, POS terminals, instrumentation and monitoring, power conditioning, thermostats and consumer audio/video.

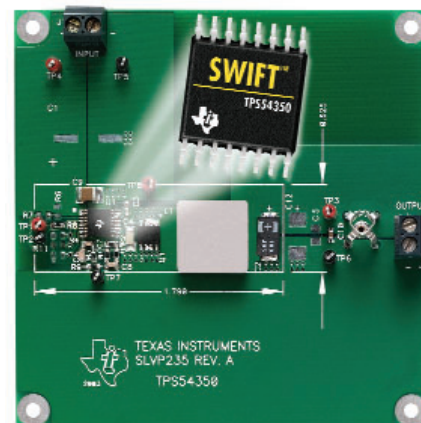
Providing scalability for complex embedded designs, these devices feature socket, software and peripheral compatibility. They also include Microchip's PMOS Electrically Erasable Cell (PEEC) process technology, which provides best-in-class erase/write endurance, retention, and reliability for both program and on-chip data EEPROM memory.

To learn more about these devices and the TQFP Demo Board (Newark InOne stock number **61H5076** / Mfr. P/N DM183020) that supports them, please visit **newarkinone.com**

Source: Microchip Technology



NEW



SYNCHRONOUS BUCK PWM CONVERTERS

Efficiency and Solution Size — Use of inductive switching converters with integrated switches is recommended when highest conversion efficiency and smallest solution size are desired. TI's family of SWIFT™ point-of-load, step-down DC/DC converter (TPS54xxx) achieves 97% peak efficiencies. Synchronous rectification not only

replaces the cost of an external Schottky rectifier diode but also increases the converter efficiency by up to 10%. Higher efficiencies will translate to lower power dissipation in high-current designs, easing thermal design and heat sinking.

Input Voltage

TPS54xxx SWIFT™ series can operate from preregulated 12V, 5V or 3.3V bus voltages.

SWIFT™ Designer Software Tool

SWIFT™ is an interactive development tool that speeds novice designers and veteran power supply engineers through the entire component selection process. It requires only simple inputs such as output voltage, maximum current and input voltage range. **NOTE:** Get software at: power.ti.com/swift

Features:

- V_{CC} Min./Max.: 3V/6V, Respectively
- **TPS54350PWP** V_{CC} Min./Max.: 4.5/20V, Respectively
- Integrated FETs
- Typical Efficiency: 90%
- Maximum Switching Frequency: 700kHz
- Operating Temperature: -40°C to +85°C
- **TPS54x72** for DDR Memory Power
- **TPS54x80** for Power Supply Sequencing

Type	Pre-set V _{out} (V)	V _{out} Min/Max. (V)	V _{out} Accuracy (%)	I _o (mA)	Package *	Stock No.	1-24	1000+
TPS54310PWP	Adj.	0.9 to 4.5	1	3000	20-HTSSOP	77C0489	5.90	3.69
TPS54310PWPR+	Adj.	0.9 to 3.3	1	3000	20-HTSSOP	77C0490	5.90	3.69
TPS54315PWP	2.5	...	2	3000	20-HTSSOP	77C0499	5.90	3.69
TPS54350PWP	Adj.	0.9 to 12	1	3000	16-HTSSOP	87H2891	4.94	3.09
TPS54372PWP	Adj.	0.2 to 4.5	...	3000	20-HTSSOP	77C0503	5.90	3.69
TPS54380PWP	Adj.	0.9 to 4.5	1	3000	20-HTSSOP	32H6557	5.90	3.69
TPS54380PWPR+	Adj.	0.9 to 4.5	1	3000	20-HTSSOP	32H6558	5.90	3.69
TPS54610PWP	Adj.	0.9 to 4.5	1	6000	28-HTSSOP	77C0506	7.80	4.88
TPS54615PWP	2.5	...	2	6000	28-HTSSOP	77C0517	7.80	4.88
TPS54613PWP	1.5	...	2	6000	28-HTSSOP	77C0512	7.80	4.88
TPS54614PWP	1.8	...	2	6000	28-HTSSOP	77C0515	7.80	4.88
TPS54616PWPR+	3.3	...	2	6000	28-HTSSOP	77C0520	7.80	4.88
TPS54810PWP	Adj.	0.9 to 3.3	1	8000	28-HTSSOP	77C0523	8.40	5.25
TPS54910PWP	Adj.	0.9 to 2.5	1	9000	28-HTSSOP	77C0527	8.80	5.50
TPS54910PWPR+	Adj.	0.9 to 2.5	1	9000	28-HTSSOP	77C0528	8.80	5.50

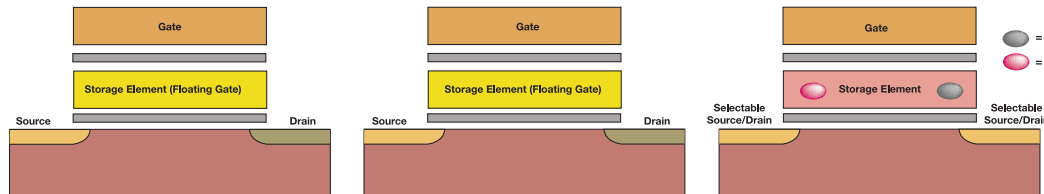
* Features PowerPAD™ package; + Available on cut tape

82745



Basic Flash Memory Cell

AMD MirrorBit™ Cell



MIRRORBIT™ FLASH MEMORY

Applications:

- Telecom Hardware
- Networking Hardware
- Digital Set-Top Boxes
- Automotive Dashboard Applications
- Cellular Handsets and Portable Applications

Benefits:

- Stores Two Distinct, Independent Charges Per Memory Cell
- Enables High-Density FLASH without Compromising Data Integrity or Performance
- Provides an Easy Migration Path to 1Gb FLASH
- Features Complete Pin and Package Compatibility with AMD's Proven Single-Bit/Cell FLASH
- Market Leading Performance for 2 Bits/Cell Technology: Speed, Erase, Programming

MirrorBit™ FLASH memory provides a unique, patented design which is completely pin-compatible with AMD's standard 3V (LV family) devices. These devices simply drop into existing sockets to enable migration from AMD's existing type AM29LVxxx memory product. Reliable and robust performance enables 20 years data retention at +125°C and 100K cycles of program/erase. Software-compatible, offering the standard AMD sector size (64kB) and standard AMD command set with an extension for write buffer mode. One-time programmable Secured Silicon (SecSi™) sector for permanent, secure FLASH identification via an electronic serial number. Sector Group Protection at high voltages. Low power consumption: 1µA standby mode current (typ.) and 15µA active read current (typ.).

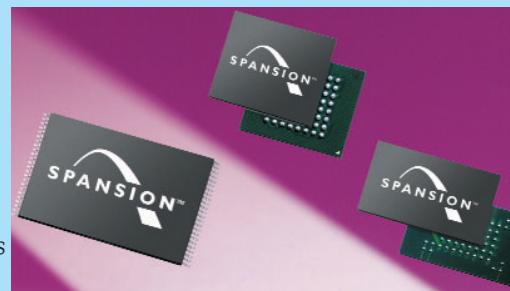
Stock No.	Type	Density (Mb)	Access Times	Voltage Supply (V)	V _{IO} (V)	Organization	Additional Features	Page Mode	Pkg./ Pins	1-24	25-99
26H3677	S29GL032M10TAI020	32	110	2.7 - 3.6	1.65 - 3.6	2M x 16, 4M x 8	SecSi Sector, WP#/ACC, CFI; Sector Sizes (kB): (8)8, (63)64	Y	56 TSOP	8.47	7.62
26H3681	S29GL032M10TAI030								48 TSOP	8.47	7.62
26H3678	S29GL032M10TAIR20								56 TSOP	7.23	6.50
26H3675	S29GL032M11TAI010								56 TSOP	8.10	7.28
26H3679	S29GL032M11TAI020								56 TSOP	8.10	7.28
26H3682	S29GL032M11TAI030	120	120	2.7 - 3.6	1.65 - 3.6	4M x 16, 8M x 8	SecSi Sector, ACC, CFI; Sector Size (kB): (128)32	Y	48 TSOP	8.10	7.28
26H3673	S29GL032M11TAI040								48 TSOP	8.10	7.28
26H3689	S29GL064M10FAIR50	64	100	2.7 - 3.6	1.65 - 3.6	4M x 16, 8M x 8	SecSi Sector, ACC, CFI; Sector Size (kB): (128)32	Y	64 FORT-BGA	13.20	11.88
26H3702	S29GL064M10TAIR70		110						48 TSOP	13.45	12.10
26H3649	S29GL064M11TAIR00		48 TSOP						13.08	11.76	
26H3686	S29GL064M11FAIR10		120						64 FORT-BGA	13.20	11.88
26H3688	S29GL064M11FAIR20		63 FINE-BGA						13.20	11.88	
26H3694	S29GL064M11BAIR50	128	120	2.7 - 3.6	1.65 - 3.6	8M x 16, 16M x 8	WP#/ACC, CFI; Sector Size (kB): (256)64	Y	64 FORT-BGA	14.94	13.44
26H3693	S29GL064M11FAIR50								64 FORT-BGA	13.20	11.88
26H3699	S29GL064M11TAIR60								48 TSOP	13.08	11.76
26H3653	S29GL128M10FAIR10								256	120	2.7 - 3.6	1.65 - 3.6	16M x 16, 32M x 8	WB#/ACC, CFI; Sector Size (kB): (512)64	Y	64 FORT-BGA	21.17	19.04
26H3652	S29GL128M10TAIR10	56 TSOP	20.42	18.37							
26H3657	S29GL128M10FAIR20	64 FORT-BGA	21.17	19.04							
26H3656	S29GL128M10TAIR20	56 TSOP	20.42	18.37							
26H3667	S29GL256M11FAIR10	256	120	2.7 - 3.6	1.65 - 3.6	16M x 16, 32M x 8	WB#/ACC, CFI; Sector Size (kB): (512)64	Y	64 FORT-BGA	33.00	29.68
26H3666	S29GL256M11TAIR10								56 TSOP	32.37	29.12
26H3671	S29GL256M11FAIR20								64 FORT-BGA	33.00	29.68
26H3670	S29GL256M11TAIR20								56 TSOP	32.37	29.12

82861

ABOUT Spanion

Continued Innovation in NOR FLASH Memory Design

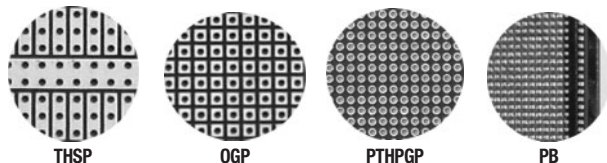
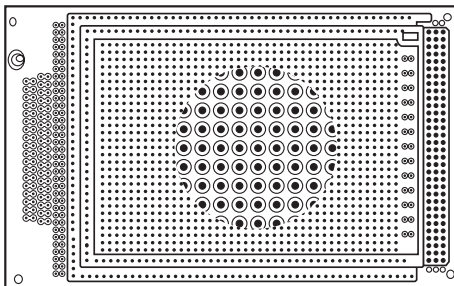
Formed through the integration of the AMD and Fujitsu FLASH memory operations, Spanion LLC is the world's leading supplier of NOR FLASH memory products, and offers the industry's broadest portfolio. Spanning embedded and wireless applications, Spanion offers 1.8V, 3.0V, and 5V products from 1 Mb to 512 Mb in packaged and Known Good Die (KGD) configurations.



The Spanion GL-N family includes 512, 256, and 128 Mb products based on second-generation 110nm MirrorBit™ technology, and is designed for high performance and high density applications. All GL-N products deliver random access times as fast as 90 ns and 8-word page-mode access at 25 ns. The resulting read throughput is 40 percent higher than competing products based on MLC technology. For medium density requirements, select Spanion's popular GL-M products at 64, 32, 16Mb based on 230nm MirrorBit technology.

For more information on Spanion products, please visit newarkinone.com

Source: Spanion



CIRCBOARD™ EUROCARD PROTOTYPING BOARDS, 0.063" THICK FOR DIN 41612 CONNECTORS, VME

- All Bus and Circuit Patterns are Solder Coated
- FR-4 Epoxy Glass and CEM-1 Epoxy Glass Composite Material with UL 94V-0 Flame Rating
- Boards Can Be Cut to Smaller Units
- Available in DIN sizes **3U** (3.94"), **6U** (9.19") and **9U** (14.44")

Signal pattern Eurocards have a bus connector, I/O, and signal pattern area. Bus connector area accepts 96-pin DIN wire-wrap connectors that allow direct connection to power and ground busses by wiring or using specially designed eyelets (T123/500 Eyelets for .055" hole boards will simulate .042" plated hole). I/O area provided for mounting D-sub and flat ribbon cable connectors. Eurocards may be used as 96-pin VME or Multibus II. 0.1" x 0.1" grid hole pattern allows non-restrictive placement of components. Boards are .062" thick (1.57). Holes on .100" (2.54) Grid. Accepts **type R32** wire-wrap socket pins and **T123/500** Eyelets ordered separately.

Pattern	Description
OGP	Overall Ground Plane, No Pads
PB	Peripheral Busses Only, No Pads
PTHPGP	Pad-Per-Hole, Holes Plated-Thru- w/ Peripheral Ground Plane
THSP	Three-Hole Pads

Type	Circuit Pattern		W x L	DIP Capacity	Stock No.	Each
	Solder Side	Component Side				
4614*	THSP	THSP	3.94" x 6.3"	20	46F365	27.29
4614-3*	PTHPGP	PTHPGP	3.94" x 6.3"	30	46F367	29.11
4614-4†	PTHPGP	PTHPGP	3.94" x 6.3"	20	97H9197	23.65
4615*	THSP	THSP	9.19" x 6.3"	50	46F368	32.75
E160-3U-1*	PTHPGP	PTHPGP	3.94" x 6.3"	35	46F2751	16.37
E160-3U-3†	OGP	OGP	3.94" x 6.3"	45	46F2739	23.65
E160-6U-1*	PTHPGP	PTHPGP	9.19" x 6.3"	100	46F2740	29.11
E160-6U-3†	OGP	OGP	9.19" x 6.3"	105	46F2742	25.47
E160-6U-1*	PTHPGP	PTHPGP	9.19" x 8.66"	100	46F2740	29.11
E220-6U-2*	PB	PB	9.19" x 8.66"	140	46F2744	40.03
E220-6U-3†	OGP	OGP	9.19" x 8.66"	168	46F2745	26.39
E280-9U-3†	OGP	OGP	14.44" x 11.02"	348	87F1064	60.05

*Hole diameter: 0.042"; †Hole diameter: 0.055"

ACCESSORIES

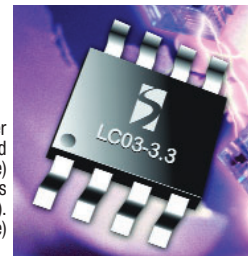
Type	Description	Stock No.	Each
HA9/4	Rotator Ejector w/ Hardware - Set of 4	77B5478	8.72
FP04-3U	DIN/VME Front Panel & Type 5 Fixed Handle, 5.12" X .794"	94F9333	19.59
FP08-3U	DIN/VME Front Panel & Type 5 Fixed Handle, 5.12" X 1.588	94F9364	21.50
FP04-6U	DIN/VME Front Panel & Type 5 Fixed Handle, 10.31" X .794"	94F9334	21.50
FP08-6U	DIN/VME Front Panel & Type 5 Fixed Handle, 10.31" X 1.588"	27B9441	29.00
FP04-3U	DIN/VME Front Panel & Type 1 Ejector Handle, 5.12" X .794"	90H9851	24.57
FP08-3U	DIN/VME Front Panel & Type 1 Ejector Handle, 5.12" X 1.588"	90H9852	26.39
FP04-6U	DIN/VME Front Panel & Type 1 Ejector Handle, 10.31" X .794"	91B8129	21.21
FP08-6U	DIN/VME Front Panel & Type 1 Ejector Handle, 10.31" X 1.588"	90B3556	26.94

82570

LINE SIDE PROTECTION; T1/E1, T3/E3 PROTECTION

LC Series

For telecommunications applications with long-haul (outer building) connections. Low capacitance, low clamping and operating voltage, and high surge capability. Metallic (line-to-line) protection for one tip and ring line pair. ESD protection in excess of 25 kV and lightning protection to 1500 W (tp = 10/1000 µs). Meets the transient immunity requirements of Telcordia (Bellcore) 1089, FCC Part 68, IEC 61000-4-5, and ITU K17-K20.



Type	V _{BR} Min. (V)	V _{RWM} Max. (V)	I _{PP} (A)	P _{PK} (W)	I _R Max. (µA)	Package	Cut Tape Stock No.	Each
LC01-6	8	6	500	1500	25	16-SOIC-WIDE	56J7258	5.50
LC03-3.3	3.5	3.3	100	1800	1	8-SOIC	56J7261	2.30
LC03-6	6.8	6	100	2000	25	8-SOIC	56J7265	2.30
LC04-12	13.3	12	100	600	2	16-SOIC	56J7268	4.60
LC04-6	6.8	6	200	1000	15	16-SOIC	56J7271	4.60
LC05-6.TB	6.8	6	100	2000	15	16-SOIC	56J9020	3.40

LCDA Series

The LCDA series surface-mount TVS arrays are designed for use in applications where multiple lines of protection are needed. They feature a TVS diode in series with a compensating diode for low capacitance. These devices will protect two bidirectional lines. They provide ESD protection in excess of 25 kV and lightning protection to 300 W (tp = 8/20 µs). They may be used to meet the requirements of IEC 61000-4-2 & -4.

Type	V _{BR} Min. (V)	V _{RWM} Max. (V)	I _{PP} (A)	P _{PK} (W)	I _R Max. (µA)	Package	Cut Tape Stock No.	Each
LCDA05	6	5	20	300	20	8-SOIC	56J7235	2.90
LCDA12	16.7	15	5	500	1	8-SOIC	56J7238	2.90
LCDA12C-1.TC	13.3	12	5	500	1	SOT-143	56J9018	1.58
LCDA15	16.7	15	5	500	1	16-SOIC	56J7246	2.90
LCDA15C-1.TC	16.7	15	5	500	1	SOT-143	56J9019	2.18

LC and LCDA series available in full reel quantities; visit Newark InOne online.

82993

SWITCHMODE REGULATORS

Benefits

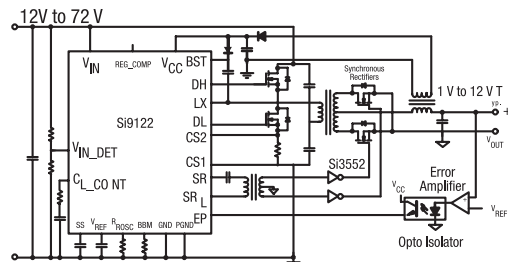
- Eliminate external start-up circuit
- Limits inrush current and misoperation
- Disables output when V_{IN} below threshold
- Fast transient response to line variation

Features

- Internal high voltage to V_{CC} regulator
- Built in under voltage lock out, soft start and thermal shutdown
- Input voltage detector
- Input voltage feedforward compensation

Main Specifications

- Input voltage of 12 to 75V
- Up to 92% efficiency
- Integrated primary MOSFET drivers
- Secondary synchronous rectifier control with programmable deadtime delay
- Programmable oscillation frequency up to 500kHz



The **Si9122** is the industry's first 500-kHz PWM controller ICs to combine two integrated MOSFET drivers and integrated signal drivers for secondary synchronous rectification. Offering a compact and efficient solution for fixed telecom applications that require power supplies in the range of 20W to 150 W, these half-bridge devices operate over a 12- to 72-V input voltage range, drive both primary-side MOSFETs, and provide timing for the secondary synchronous rectifiers.

Half-Bridge DC-DC Converter with Integrated Secondary Synchronous Rectification Control

Cut Tape Stock No.	Type	V _{IN}		V _{CC}		V _{REF} (V)	Package	Each
		Min. (V)	Max. (V)	Min.	Max.			
21H8143	Si9122DQ-T1	12	72	10	13.2	3.3	TSSOP-20	4.63
02J5288	Si9122DW-T1	12	72	10	13.2	3.3	SOIC-20	4.77

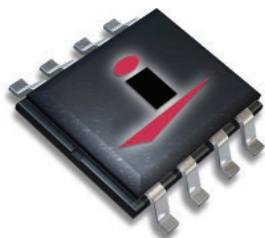
Available in full reel quantities; visit Newark InOne online.

82949



intersil

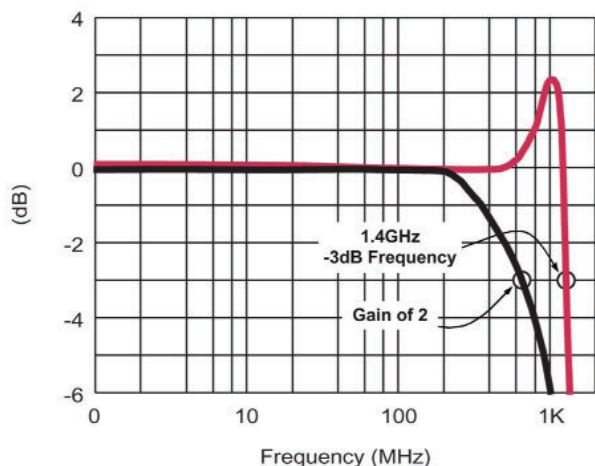
NEW



EL5166 - Current Feedback Amplifier

- 6000V/μs Slew Rate
- 1.4GHz Bandwidth

Frequency Response of EL5166



Resolution	Refresh Rate (Hz)	Hsync Freq (kHz)	Amp BW Required (MHz)	Resolution	Refresh Rate (Hz)	Hsync Freq (kHz)	Amp BW Required (MHz)
640 x 400	85	37.9	220	1024 x 768	60	48.4	475
720 x 400	85	37.9	245	1024 x 768	70	56.5	555
640 x 480	60	31.5	185	1024 x 768	75	60.0	580
640 x 480	72	39.9	225	1024 x 768	85	68.7	670
640 x 480	75	37.5	235	1152 x 864	75	67.5	750
640 x 480	85	43.3	265	1280 x 960	60	60.0	740
800 x 600	56	35.1	270	1280 x 960	85	85.9	1050
800 x 600	60	37.9	290	1280 x 1024	60	64.0	790
800 x 600	72	48.1	350	1280 x 1024	75	80.0	985
800 x 600	75	46.9	360	1280 x 1024	85	91.1	1150
800 x 600	85	53.7	410	1600 x 1200	60	75.0	1160
1024 x 768	43*	35.5	340	1600 x 1200	65	81.3	1200

HIGH-BANDWIDTH CURRENT FEEDBACK AMPLIFIERS

Applications:

- Video Amplifiers
- RGB Amplifiers
- Instrumentation
- Cable Drivers
- Test Equipment

SINGLE

Type	BW (MHz)	SR (V/μs)	V _{IO} (mV)	Package	Stock No.	1-24	25-99
EL5162IS	500	4000	5	8-SOIC	97H9512	2.50	2.25
EL5162W-T7A	500	4000	5	6-SOT-23	97H9516	2.50	2.25
EL5163IC-T7A	500	4000	5	5-SC-70	09J5079	2.50	2.25
EL5163W-T7A	500	4000	5	5-SOT-23	09J5080	2.50	2.25
EL5164IS	630	4700	3.5	8-SOIC	83H6515	2.70	2.43
EL5164W-T7A	630	4700	3.5	6-SOT-23	83H6519	2.70	2.43
EL5165IC-T7A	630	4700	3.5	5-SOT-23	09J5081	2.28	2.06
EL5165W-T7A	630	4700	3.5	5-SOT-23	83H6521	2.70	2.43
EL5166IS	1400	6000	5	8-SOIC	97H9523	2.92	2.63
EL5166W-T7A	1400	6000	5	6-SOT-23	97H9527	2.92	2.63
EL5167IC-T7A	1400	6000	5	5-SC-70	09J5082	2.92	2.63
EL5167W-T7A	1400	6000	5	5-SOT-23	09J5083	2.92	2.63

TRIPLE

EL5392ACS	600	2300	10	16-SOIC	31H9446	4.82	4.34
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82750

Basic Tips for Using High-Speed Current Feedback Amplifiers

In applications like test equipment and video products, leveraging the inherent advantages of current feedback amplifiers (CFA) can be the only way to meet the very high bandwidth and slew rate demand. A case for why engineers must learn to clear the hurdles of CFA design is the higher demands of new video products on the market. For example, amplifier circuits supporting UXGA resolution must exceed a bandwidth (BW) requirement of 1.2GHz (Table 1). The EL5166 from Intersil is a good example of a CFA that is perfect for this type of application. With a 1.4GHz bandwidth and a phenomenal 6000V/μs slew rate into heavy loads, the EL5166 exceeds the requirements and provides the engineer with design headroom.

Much of a designer's voltage feedback amplifier (VFA) knowledge can be applied to CFA design since the ideal equations for both amplifiers are identical. There are two key characteristics of the CFA that should be kept in mind: 1) the closed loop bandwidth is independent of the closed loop gain, so the constant gain-bandwidth restriction applied to VFAs is removed for CFAs. 2) Stability is dependent on the feedback resistor value (R_F). For many circuits, such as those that require high gain without sacrificing bandwidth, these two characteristics offer significant advantages for the CFA with very few drawbacks.

The optimum value of the feedback resistor is determined by the manufacturer during the characterization of the amplifier, so there is no guessing here. When R_F exceeds the recommended value, stability increases. There is a price to pay for the increased stability: decreased bandwidth. Equally, when R_F is less than the recommended value, stability decreases. When stability decreases, the circuit response to sharp input signal edges is overshoot or possibly ringing. Occasionally the overshoot can be tolerated because the bandwidth increases as R_F decreases. Also, the overshoot can be utilized for certain applications, like compensating for cable droop caused by cable capacitance.

So we know the feedback resistor determines stability and its relationship to bandwidth. What about gain?

Read the entire article @ newarkinson.com/de

Source: Partick Long, Intersil



NEW

Low profile for substantial PCB space savings

SMF PACKAGE DIODES

Features

- Broad product range
- Excellent stability
- Best class reliability
- Flat terminal allows stable mounting
- High reliability due to Planar Structure of the die
- High surge current capability
- High power rating
- Ultra-low stress epoxy package

Applications

General-purpose and Schottky diodes

- Rectification
- Reverse polarity protection
- Freewheeling

Fast and Superfast diodes

- Portable products
- Reverse current protection
- DC/DC converters

Zener and ESD protection diodes

- Voltage stabilization
- Gate protection for MOSFETs
- ESD protection

There are more than 120 diode devices in the SMF (D0219-AB) package, that combines high power capability and miniaturized dimensions of 3.7mm by 1.8mm by 0.98mm, allowing considerable space savings on printed circuit boards. These diode products offered in the SMF package address all industry segments and include switching, fast switching, ultrafast switching, Schottky, ESD protection, and Zener diodes. With its industry-low package height of 0.98mm - as much as 50% lower than competing devices - the SMF (D0219-AB) package reduces space requirements and improves circuit board density. **Available in tape on reel packages; visit Newark InOne online.**

ESD PROTECTION DIODES

Type	V _{BR} (V)	I _r (mA)	V _{WM} (V)	I _o (µA)	I _{PPM} (A)	V _c (V)	Cut Tape Stock No.	Each
SMF5,0A/G2	6.4	10	5	400	21.7	9.2	21H9069	0.32
SMF10/G2	11.1	1	10	2.5	11.8	17	21H9019	0.32
SMF11A/G2	12.2	1	11	2.5	11	18.2	21H9022	0.32
SMF12A	13.3	1	12	2.5	10.1	19.9	32C2037	0.32
SMF13A/G2	14.4	1	13	1	9.3	21.5	21H9029	0.32
SMF14A/G2	15.6	1	14	1	8.6	23.2	21H9033	0.32
SMF15A	16.7	1	15	1	8.2	24.4	32C2038	0.32
SMF16A/G2	17.8	1	16	1	7.7	26	21H9037	0.32
SMF17A/G2	18.9	1	17	1	7.2	27.6	21H9041	0.32
SMF18A/G2	20	1	18	1	5.8	29.2	21H9045	0.32
SMF20A/G2	22.2	1	20	1	6.2	32.4	21H9048	0.32
SMF22A/G2	24.4	1	22	1	5.6	35.5	21H9050	0.32
SMF24A	26.7	1	24	1	5.1	38.9	32C2041	0.32
SMF26A/G2	28.9	1	26	1	4.8	42.1	21H9053	0.32
SMF28A/G2	31.1	1	28	1	4.4	45.4	21H9055	0.32
SMF30A/G2	33.3	1	30	1	4.1	48.4	21H9057	0.32
SMF33A/G2	36.7	1	33	1	3.8	53.3	21H9059	0.32
SMF36A	40	1	36	1	3.4	58.1	32C2042	0.32
SMF40A/G2	44.4	1	40	1	3.1	64.5	21H9062	0.32
SMF43A/G2	47.8	1	43	1	2.9	69.4	21H9064	0.32
SMF45A/G2	50	1	45	1	2.8	72.7	21H9066	0.32
SMF48A	53.3	1	48	1	2.6	77.4	32C2043	0.32
SMF51A/G2	56.7	1	51	1	2.4	82.4	21H9071	0.32



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ZENER DIODES

Type	T _j max (°C)	V _r @ 0.2A (V)	P _{tot} (W)	V _z (V)
GZF3V6C - GZF91C*	150	1.2	0.8	3.6 to 91
BZD27C3V6P - BZD27C200P*†	3.4	3.8	4	3.6 to 200

* Other values available; visit Newark InOne online.

† Series can also be used as a ESD protection diode

SCHOTTKY DIODES

Type	T _j max (°C)	I _{SM} (A)	I _r (AV) (A)	V _{RRM} (V)	V _r @ 0.5A (V)	V _r @ 1.1A (V)	I _r @ 25°C (µA)	I _r @ 100°C (mA)	Cut Tape Stock No.	Each
SL02	125	40	1.1	20	0.385	0.42	250	8	32C1934	0.38
SL03	125	40	1.1	30	0.395	0.45	130	6	32C1935	0.38
SL04	125	40	1.1	40	0.45	0.53	20	6	32C1936	0.38

SWITCHING DIODES

Type	T _j max (°C)	I _{SM} (A)	I _r (AV) (A)	V _{RRM} (V)	V _r @ 1.0A (V)	I _r @ 25°C (µA)	I _r @ 125°C (µA)	t _{rr} (µs)	Cut Tape Stock No.	Each
S07B/G2	150	25	1.5	100	1.1	10	50	1.8	22H0702	0.26
S07G/G2	150	25	1.5	400	1.1	10	50	1.8	22H0706	0.26
S07J	150	25	1.5	600	1.1	10	50	1.8	32C2155	0.43
S07J/G2	150	25	1.5	600	1.1	10	50	1.8	22H0708	0.26
S07M/G2	150	25	1.5	1000	1.1	10	50	1.8	22H0710	0.28

FAST SWITCHING DIODES

Type	T _j max (°C)	I _{SM} (A)	I _r (AV) (A)	V _{RRM} (V)	V _r @ 1.0A (V)	I _r @ 25°C (µA)	I _r @ 125°C (µA)	t _{rr} (ns)	Cut Tape Stock No.	Each
RS07B/G2	150	25	1.4	100	1.15	10	50	150	21H7290	0.50
RS07D/G2	150	25	1.4	200	1.15	10	50	150	21H7292	0.50
RS07G/G2	150	25	1.4	400	1.15	10	50	150	21H7294	0.50
RS07J/G2	150	25	1.4	600	1.15	10	50	150	21H7296	0.50

ULTRAFAST SWITCHING DIODES

Type	T _j max (°C)	I _{SM} (A)	I _r (AV) (A)	V _{RRM} (V)	V _r @ 1.0A (V)	I _r @ 25°C (µA)	I _r @ 125°C (µA)	t _{rr} (ns)	Cut Tape Stock No.	Each
ES07B/G2	150	30	1.2	100	0.98	10	50	25	20H6298	0.34
ES07D/G2	150	30	1.2	200	0.98	10	50	25	20H6300	0.34

82946



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DATA ACQUISITION PRODUCTS

Cirrus Logics family A/D's provide a complete solution to Industrial Data Acquisition requirements. These devices are available with and without an internal input amplifier to boost incoming signals. Integral linearity as low as ± 0.0007 for high accuracy of digital output. Up to 8 input channels are available for a high degree of design flexibility.

16 Bit A/D Converters Without Amp

Type	Channels	Supply Voltage (V)		Throughput (Sps)	Integral Linearity (%FS)	Typical Power Consumption (mW)	On-Chip Calibration	Calibration Registers for Each Ch.	Additional Cirrus Features	Pins/Pkg.	Stock No.	1-24	25-99
		Analog	Digital										
CS5507-AP	1	$\pm 5, 10$	3, 5	100	± 0.0015	1.7 (single supply), 3.2 (dual supply)	Y	N	4	20-pin PDIP	75C9951	18.44	14.18
CS5507-AS	1	$\pm 5, 10$	3, 5	100	± 0.0015	1.7 (single supply), 3.2 (dual supply)	Y	N	4	20-pin SOIC	75C9952	18.44	14.18
CS5509-AP	1	5	3, 5	200	± 0.0015	1.7	Y	N	...	16-pin PDIP	73C5095	13.00	10.00
CS5509-AS	1	5	3, 5	200	± 0.0015	1.7	Y	N	...	16-pin SOIC	75C9956	13.00	10.00
CS5505-AP	4	$\pm 5, 10$	3, 5	100	± 0.0015	1.7 (single supply), 3.2 (dual supply)	Y	N	4	20-pin PDIP	73C6236	22.29	17.14
CS5505-AS	4	$\pm 5, 10$	3, 5	100	± 0.0015	1.7 (single supply), 3.2 (dual supply)	Y	N	4	20-pin SOIC	75C9947	22.29	17.14

18 Bit A/D Converters Without Amp

CS5510-AS	1	5	3, 5	53.5-212	0.0015	1.5	N	N	...	8 SOIC	35C5660	4.36	3.35
CS5511-AS	1	5	3, 5	100	0.0015	1.5	N	N	...	8 SOIC	35C5661	4.36	3.35

18 Bit A/D Converters With Amp

CS5516-AP	1	± 5	5	60	0.0015	40	Y	Y	...	24 PDIP	35C5664	22.00	20.00
CS5516-AS	1	± 5	5	60	0.0015	40	Y	Y	...	24 SOIC	35C5665	22.00	20.00
CS5531-AS	2	$5, \pm 2.5, \pm 3.3$	3, 5	7.5 - 3840	± 0.0015	25	Y	Y	1, 2, 3	20 SSOP	35C5684	9.22	7.09
CS5523-AS	4	5	3, 5	1.86 - 400	0.0015	5.5	Y	Y	1, 2, 3	24 SOIC	35C5673	8.77	6.74

20 Bit A/D Converter Without Amp

CS5508-BP	1	$\pm 5, 10$	3, 5	100	± 0.0007	1.7 (single supply), 3.2 (dual supply)	Y	N	4	24-pin PDIP	75C9954	20.38	15.67
CS5508-BS	1	$\pm 5, 10$	3, 5	100	± 0.0007	1.7 (single supply), 3.2 (dual supply)	Y	N	4	24-pin SOIC	75C9955	20.04	15.41
CS5504-BP	2	$\pm 5, 10$	3, 5	200	± 0.0007	4.4	Y	N	...	20-pin PDIP	75C9945	17.97	13.82
CS5504-BS	2	$\pm 5, 10$	3, 5	200	± 0.0007	4.4	Y	N	...	20-pin SOIC	75C9946	17.97	13.82
CS5506-BP	4	$\pm 5, 10$	3, 5	100	± 0.0007	1.7 (single supply), 3.2 (dual supply)	Y	N	4	24-pin PDIP	75C9949	26.00	20.00
CS5506-BS	4	$\pm 5, 10$	3, 5	100	± 0.0007	1.7 (single supply), 3.2 (dual supply)	Y	N	4	24-pin SOIC	74C6739	26.00	20.00
CS5513-BS	1	5	3, 5	100 (typ)	0.0007	2	N	N	...	8 SOIC	35C5663	5.35	4.11

20 Bit A/D Converters With Amp

CS5520-BP	1	± 5	5	60	0.0007	40	Y	Y	...	24 PDIP	35C5666	25.15	22.86
CS5520-BS	1	± 5	5	60	0.0007	40	Y	Y	...	24 SOIC	35C5667	25.15	22.86
CS5526-BP	1	5	3, 5	3.75 - 606	0.0007	4	Y	Y	...	20 PDIP	35C5678	9.00	7.50
CS5526-BS	1	5	3, 5	3.75 - 606	0.0007	4	Y	Y	...	20 SSOP	35C5679	9.00	7.50

24 Bit A/D Converter Without Amp

CS5540-AS	2	3	3	6.7	± 0.0015	0.75	Y	Y	...	16-pin SSOP	75C9967	6.52	5.01
CS5541-BS	2	3	3	13.4 - 260	0.0015	30uW (Sleep), 75uW (Standby), 750uW (Normal)	Y	N	...	16-pin SSOP	35C5691	7.80	6.00

24 Bit A/D Converters With Amp

CS5522-AP	2	5	3, 5	1.88 - 606	0.0007	5.5	Y	Y	1, 2, 3	20 PDIP	35C5670	9.44	7.86
CS5522-AS	2	5	3, 5	1.88 - 606	0.0007	5.5	Y	Y	1, 2, 3	20 SSOP	35C5671	9.44	7.86
CS5532-AS	2	$5, \pm 2.5, \pm 3.3$	3, 5	7.5 - 3840	± 0.0015	50/90	Y	Y	...	20 SSOP	35C5685	9.93	8.27
CS5532-BS	2	$5, \pm 2.5, \pm 3.3$	3, 5	7.5 - 3840	± 0.0007	50/90	Y	Y	...	20 SSOP	35C5686	13.29	11.07
CS5524-AP	4	5	3, 5	1.88 - 606	0.0007	5.5	Y	Y	1, 2, 3	24 PDIP	35C5674	9.87	8.22
CS5524-AS	4	5	3, 5	1.88 - 606	0.0007	5.5	Y	Y	1, 2, 3	24 SSOP	35C5675	9.87	8.22
CS5534-AS	4	$5, \pm 2.5, \pm 3.3$	3, 5	7.5 - 3840	± 0.0015	50/90	Y	Y	...	24 PDIP	35C5688	10.36	8.63
CS5534-BS	4	$5, \pm 2.5, \pm 3.3$	3, 5	7.5 - 3840	± 0.0015	50/90	Y	Y	...	24 SSOP	35C5689	13.72	11.43
CS5528-AS	8	5	3, 5	1.88 - 606	0.0007	5.5	Y	Y	...	24 SSOP	35C5681	10.29	8.57
CS5550-IS	2	5	3, 5	2.44-4 kSps	± 0.1	21	Y	Y	11	24-pin SSOP	88H6491	4.18	3.21

SARs 12, 14, 16 Bits

CS5012A-BP7	1	± 5	5	100,000	0.006	150	Y	N	...	40 PDIP	35C5624	30.65	27.86
CS5014-BP14	1	± 5	5	56,000	0.002	120	Y	N	...	40 PDIP	35C5626	61.43	57.33
CS5016-BL16	1	± 5	5	50,000	0.001	150	Y	N	...	40 PLCC	35C5629	107.14	100.00
CS5016-BP16	1	± 5	5	50,000	0.001	150	Y	N	...	42 PDIP	35C5630	107.14	100.00
CS5101A-BP8	2	± 5	5	100,000	0.002	320	Y	N	...	28 DIP	35C5634	64.29	60.00
CS5102A-BL	2	± 5	5	100,000	0.002	320	Y	N	...	28 PLCC	35C5637	52.15	48.67
CS5102A-BP	2	± 5	5	100,000	0.002	320	Y	N	...	28 DIP	35C5638	52.15	48.67

Features Key: **1** Includes Channel Sequence Manager; **2** Includes On-Chip Data FIFO; **3** Includes Latch Outputs; **4** On-Chip Reference, Clock, Buffered Output of Master Clock; **5** Stand Alone Mode (No Need for Microprocessor); **7** Master-Mode Serial Interface; **8** CS5451 and CS5471 ADCs Start Conversion at Power Up; **10** Energy Data Linearity Measured Over 1000: 1 Input Range in 1 Second; **11** Used for Electronic Weigh-Scale Applications.



ANYRATE™ CLOCK AND DATA RECOVERY

NEW

The AnyRate devices represent a complete clock and data recovery solution for data rates between 32Mbps up to 1250Mbps. These devices are ideally suited for SONET/SDH/ATM applications as well as other high-speed transmission systems. Features two on-chip PLLs: one for clock generation and another for clock recovery. Utilizes differential PECL for high-speed serial I/O.

Type	Data Rate (Mbps)	Supply Voltage (V)	Package	Stock No.	1-24	25-99
SY69753LHI	155	3.3	EPAD-TQFP-32	76C5897	18.69	17.34
SY87700LHI	32-175	3.3	EPAD-TQFP-32	29C1747	19.64	18.33
SY87700LZI	32-175	3.3	SOIC-8	29C1748	19.64	18.33
SY87700VHC	32-175	5/3.3	EPAD-TQFP-32	29C1749	19.64	18.33
SY87701LHI	32-1250	3.3	EPAD-TQFP-32	29C1750	29.04	27.11
SY87701LZI	32-1250	5/3.3	SOIC-8	29C1751	29.04	27.11
SY87701VHC	32-1250	5/3.3	EPAD-TQFP-32	29C1752	29.04	27.11
SY87701VZC	32-1250	5/3.3	SOIC-28	96B6598	29.04	27.11

82859



LVPECL-to-PECL TRANSLATOR

NEW

Features

- 3V and 5V power supplies required
- Supports LVPECL-to-PECL translation
- 500ps propagation delays
- Fully differential design
- Differential line receiver capability
- Available in 28-pin PLCC package

The SY100E417 is a quint LVPECL-to-PECL translator. The device receives standard PECL signals and translates them to differential LVPECL output signals (or vice versa). The SY100E417 can also be used as a differential line receiver for PECL-to-PECL or LVPECL-to-LVPECL signals.

Stock No.	Type	Operating Range	Package	1-24	25-99
29C1578	SY100E417JC	Commercial	28-PLCC	14.55	13.58

82857

newarkinone.com

One source for top brand semiconductors, optoelectronics, development tools & accessories



NEW



TECCOR SIDACTOR DEVICES

Specifications

- Package: DO-214AA
- On-State Voltage: 4V
- On-State Forward Voltage: 0V
- Leakage Current: 5µA
- Switching Current: 800mA

Littelfuse DO-214AA SIDACTor solid state protection devices protect telecommunications equipment such as modems, line cards, fax machines, and other CPE. SIDACTor devices are used to enable equipment to meet various regulatory requirements. Also available in **Tape on Reel**; visit Newark.InOne.online.

Suffix	Ipp 2 x 10 µs (A)	Ipp 8 x 20 µs (A)	Ipp 10 x 160 µs (A)	Ipp 10 x 560 µs (A)	Ipp 10 x 1000 µs (A)	I _{rsm} 60 Hz (A)	di/dt A/µs
A	150	150	90	50	45	20	500
B	250	250	150	100	80	30	500
C	500	400	200	150	100	50	500
D	1000	800	400	300	200	50	1000

Type	V _{DRM} (V)	V _s (V)	I _H (mA)	C _o (pF)	Cut Tape Stock No.	Each
P0080SARP	6	25	50	100	56J6508	0.80
P0300SARP	25	40	50	110	45J2664	0.80
P0640SARP	58	77	150	50	45J2665	0.80
P0900SARP	75	98	150	40	56J6516	0.80
P1100SARP	90	130	150	40	56J6519	0.80
P1300SARP	120	160	150	40	56J6522	0.80
P1500SARP	140	180	150	30	45J2670	0.80
P1800SARP	170	220	150	30	56J6527	0.80
P2300SARP	190	260	150	30	56J6529	0.80
P2600SARP	220	300	150	30	45J2676	0.80
P3100SARP	275	350	150	30	56J6532	0.80
P3500SARP	320	400	150	30	56J6533	0.80
P0080SBRP	6	25	50	100	56J6509	0.88
P0300SBRP	25	40	50	110	56J6511	0.88
P0640SBRP	58	77	150	50	56J6513	0.88
P0720SBRP	65	88	150	50	56J6514	0.88
P0900SBRP	75	98	150	40	56J6517	0.88
P1100SBRP	90	130	150	40	56J6520	0.88
P1300SBRP	120	160	150	40	56J6523	0.88
P1500SBRP	140	180	150	30	56J6525	0.88
P1800SBRP	170	220	150	30	56J6528	0.88
P2300SBRP	190	260	150	30	56J6530	0.88
P2600SBRP	220	300	150	30	45J2677	0.88
P3100SBRP	275	350	150	30	45J2680	0.88
P3500SBRP	320	400	150	30	45J2685	0.88
P0080SCRP	6	25	50	100	56J6510	0.98
P0300SCRP	25	40	50	110	56J6512	0.98
P0640SCRP	58	77	150	50	45J2666	0.98
P0720SCRP	65	88	150	50	56J6515	0.98
P0900SCRP	75	98	150	40	56J6518	0.98
P1100SCRP	90	130	150	40	56J6521	0.98
P1300SCRP	120	160	150	40	56J6524	0.98
P1500SCRP	140	180	150	30	56J6526	0.98
P1800SCRP	170	220	150	30	45J2672	0.98
P2300SCRP	190	260	150	30	56J6531	0.98
P3100SCRP	275	350	150	30	45J2682	0.98
P3500SCRP	320	400	150	30	45J2686	0.98
P0640SD	58	77	50	100	11J9815	1.23
P0720SD	65	88	50	100	11J9835	1.23
P0900SD	75	98	50	100	11J9855	1.23
P1100SD	90	130	50	80	11J9876	1.23
P1300SD	120	160	50	80	11J9900	1.23
P1500SD	140	180	50	80	11J9918	1.23
P1800SD	170	220	50	60	11J9942	1.23
P2300SD	190	260	50	60	11J9988	1.23
P2600SD	220	300	50	60	12J0021	1.23
P3100SD	275	350	50	60	12J0059	1.23
P3500SD	320	400	50	60	12J0096	1.23

82951



International Rectifier

NEW



**DIRECTFET™
POWER PACKAGE**

Features:

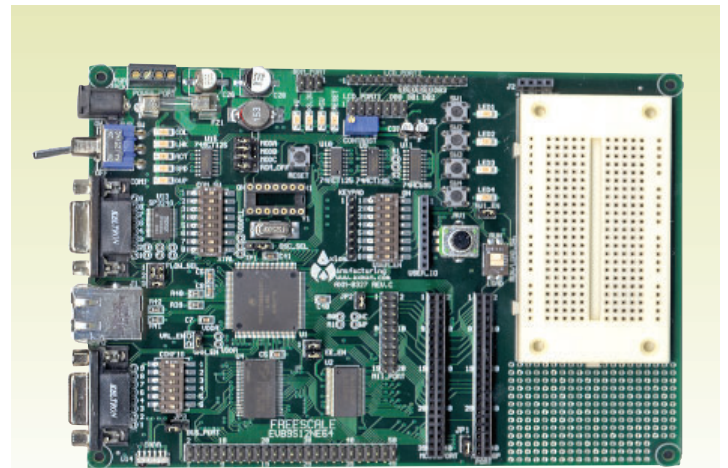
- 3°C/W Junction to Case Thermal Resistance ($R_{th(j-c)}$) Enables Highly Effective Top-Side Cooling
- Less Than 1°C/W $R_{th(junction-pcb)}$ in Same Footprint as SO-8
- Over 90% Lower Die-Free Package Resistance (DFPR) than SO-8
- 0.7mm Profile Compared to 1.75mm for SO-8
- Direct Chip Attach with No Wire Bonding or Lead-Frame
- Lower Package Inductance for Higher Frequencies
- Compatible with High-Volume Manufacturing Equipment and Processes
- Bromide- and Lead-Free
- Increases Current Density by a Factor of Two
- Cuts MOSFET Part Count by 60%
- Reduces PCB Space by 50%
- Up to 50°C Lower Operating Temperature Increases Reliability
- Lower Total System Cost

Applications:

- High-End Notebooks
- V_{RM} Modules for Servers
- Workstations and Mainframes
- Advanced Telecom and Datacom Systems

Type	V_{BSS}	I_D @10V _{GS} T _{case} =25°C (A)	$R_{DS(on)}$ max. @10V _{GS} (mΩ)	QGD Typ. (nC)	Cut Tape		Tape on Reel	
					Stock No.	Each	Stock No.	Qty. of 1000
IRF6603	30	28	3.9	19	75C0016	4.26	88H2179	2.60
IRF6604	30	15 @7VGS	11.5	7	75C0017	4.34	88H2180	1.75
IRF6607	30	27	3.3	16	03H4524	1.88	88H2181	2.73
IRF6608	30	13	7.0	5.3	83H6003	2.35	88H2182	1.85
IRF6609	20	31	1.6	15	02J0627	3.23	02J0628	2.14
IRF6612	30	24	2.5	10	02J0629	2.72	02J0630	1.43
IRF6618	20	30	2.2	15	83H6004	5.13	83H6005	3.24
IRF6620	20	27	2.1	8.8	02J0633	2.47	02J0634	1.77
IRF6623	20	16	4.4	4.0	02J0635	1.74	02J0636	1.41

80365



NEW

MC9S12NE64 SERIES DEVELOPMENT TOOLS

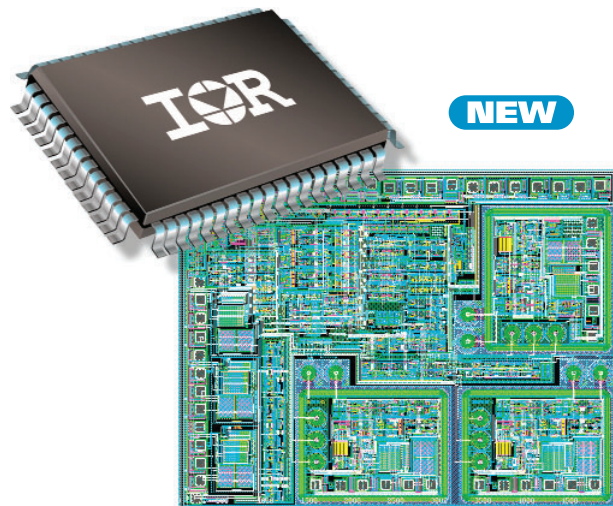
Features:

- RAM: 8K
- FLASH: 64K
- 10-bit ADC, 8 Channel
- 16-bit HCS12 CPU Core @ 25MHz
- 112-LQFP Package
- 10/100Mbps Ethernet® Media Access Controller
- 10/100Mbps Ethernet® Physical Transceiver
- Object Code Compatible with 68HC11 and 68HC12

MC9S12NE64 series development tools contain everything required to evaluate the capabilities of the MC9S12NE64 microcontroller, a new device by Freescale™. These tools, which feature **type MC9S12NE64CPV** microcontroller, provide a total Ethernet® connectivity solution in one unit. The **type MC9S12NE64CPV** microcontroller will enable you to harness the power of Ethernet® for the control and monitoring of the distributed applications. Microcontroller and sample pack also available in an 80-TQFP package; visit Newark *InOne* online.

Type	Description	Stock No.	Each
DEMO9S12NE64	Freescale™ 68HC12 Microcontroller Demonstration Board	07J9769	127.50
EV9S12NE64	Freescale™ 68HC12 Microcontroller Evaluation Board	07J9770	423.40
KMC9S12NE64CPV	Freescale™ 68HC12 Microcontroller Sample Pack *	07J9771	37.20
MC9S12NE64CPV	Freescale™ 68HC12 Microcontroller	07J9773	18.60

82853



NEW

International Rectifier

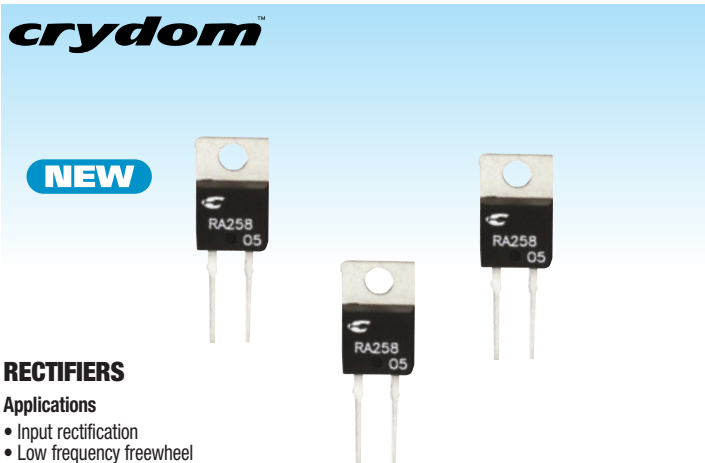
CURRENT SENSING ICs

Features:

- Floating channel up to +600V
- Monolithic integration
- Linear current feedback through shunt resistor
- Direct digital PWM output for easy interface
- Independent fast overcurrent rip signal
- High common-mode noise immunity
- Input overvoltage protection for IGBT short circuit condition
- Open drain outputs

Type	Offset Voltage (V)	Output Sink Current (mA)	V _{CC} Range (V)	Output Voltage Min/Max (V/V)	Package	Stock No.	Each
IR2175	600	10	10 to 25 with UVLO	-	8-PDIP	88H2401	6.25
IR2175S	600	10	10 to 25 with UVLO	-	8-SOIC	88H2402	6.38
IR2170	600	1	10 to 25 with UVLO	9.5/20	8-DIP	30C0196	5.63
IR2170S	600	1	10 to 25 with UVLO	9.5/20	8-SOIC	30C0197	5.75

80373



RECTIFIERS

Applications

- Input rectification
- Low frequency freewheel
- Battery Isolation
- $V_{FM} @ 25^{\circ}C = 1.1$
- TO-220AB Isolated Package

CRNB Non-Isolated versions also available.

Type	V _{RRM} (V _{pk})	I _{F(AV)}	I _{FSM} (60Hz) (A)	Stock No.	1-9	500-999
CRNA15-400	400	9.5	225	37J0080	1.93	0.86
CRNA20-400	400	12.7	300	37J0084	1.80	0.91
CRNA25-400	400	15.9	350	37J0088	2.08	1.05
CRNA15-600	600	9.5	225	37J0081	1.61	0.81
CRNA20-600	600	12.7	300	37J0085	1.86	0.94
CRNA25-600	600	15.9	350	37J0089	2.15	1.08
CRNA15-800	800	9.5	225	37J0082	1.67	0.84
CRNA20-800	800	12.7	300	37J0086	1.93	0.97
CRNA25-800	800	15.9	350	37J0090	2.21	1.11
CRNA15-1200	1200	9.5	225	37J0079	1.80	0.91
CRNA20-1200	1200	12.7	300	37J0083	2.05	1.03
CRNA25-1200	1200	15.9	350	37J0087	2.34	1.17

82837



NEW

SCR POWER DIODES, STANDARD RECOVERY

Applications

- Motor Control
- Overvoltage Crowbar Protection
- Capacitive Discharge Ignition
- Voltage Regulation
- Welding Equipment
- Capacitive Filter Soft Start
- Suitable for General-Purpose AC Switching

Standard packaging is in bulk. For tube packaging, add "PT" to the type suffix. Units shown are isolated package. CYNB series non-isolated package also available; visit Newark InOne online.

I_{T(RMS)}: 16A @ 95°C

Type	V _{DRM} Min. (V)	I _{GT} Max. (mA)	I _{TSM} @60Hz (A)	dv/dt (V/μsec)	Stock No.	1-9	500-999
CYNA16-400	400	25	200	500	09J6172	1.93	0.86
CYNA16-600	600	25	200	500	09J6174	1.61	0.81
CYNA16-800	800	25	200	500	09J6176	1.67	0.84
CYNA16-1200	1200	25	200	500	09J6170	1.80	0.91

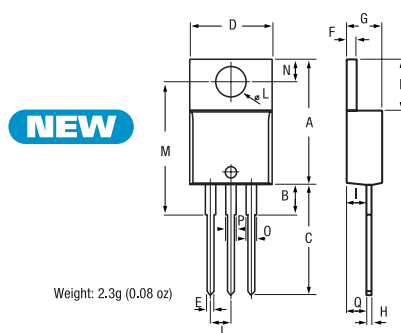
I_{T(RMS)}: 25A @ 75°C

Type	V _{DRM} Min. (V)	I _{GT} Max. (mA)	I _{TSM} @60Hz (A)	dv/dt (V/μsec)	Stock No.	1-9	500-999
CYNA25-400	400	40	350	1000	09J6180	2.08	1.05
CYNA25-600	600	40	350	1000	09J6182	2.15	1.08
CYNA25-800	800	40	350	1000	09J6184	2.21	1.11
CYNA25-1200	1200	40	350	1000	09J6178	2.34	1.17

82835



MECHANICAL OUTLINE



Weight: 2.3g (0.08 oz)

REF.	DIMENSIONS					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	15.24		15.75	0.6		0.62
B		3.23			0.127	
C	12.78		13.79	0.503		0.543
D	9.96		10.36	0.392		0.408
E	0.69		0.94	0.027		0.037
F	1.22		1.32	0.048		0.052
G	4.62		4.83	0.182		0.19
H	0.28		0.48	0.011		0.019
I	2.49		2.84	0.098		0.112
J	2.39		2.69	0.094		0.106
K	6.48		6.88	0.255		0.271
L	3.78		3.89	0.149		0.153
M	15.49	16	16.51	0.61	0.63	0.65
N	2.59		2.9	0.102		0.114
O	0.99		1.55	0.039		0.061
P	0.99		1.55	0.039		0.061
Q		2.67			0.105	

TRIACS

- Package: TO-220AB (Isolated for CTA series and Non-isolated for CTB series)
- Suitable for general-purpose AC switching
- No snubber versions (CTA/CTB...BW or CW) are recommended for inductive loads
- Logic level versions (CTA/CTB...SW or TW)

For use with microcontrollers and other low level devices
 • IGT range: 5-50mA • V_{DRM}/V_{RRM}: 400, 600, 800, 1200V • I_{T(RMS)} = 6A @105°C

Also available in [I_T =] 8A (CTA08), 12A (CTA12), 16A (CTA16), and 24A (CTA24). CTB Series non-isolated versions also available; visit Newark InOne online.

Type	V _{DRM} min. (V)	I _{GT} max. (mA)	I _{TSM} @ 60 Hz (A)	dv/dt (V/μs)	Stock No.	1-9	500-999
CTA06-400TW	400	5	63	20	07J0369	1.61	0.71
CTA06-400SW	400	10	63	40	07J0368	1.53	0.68
CTA06-400C	400	25	63	200	07J0366	1.39	0.62
CTA06-400CW	400	35	63	400	07J0367	1.46	0.65
CTA06-400B	400	50	63	400	07J0364	1.31	0.58
CTA06-400BW	400	50	63	1000	07J0365	1.42	0.63
CTA06-600TW	600	5	63	20	07J0375	1.68	0.75
CTA06-600SW	600	10	63	40	07J0374	1.61	0.71
CTA06-600C	600	25	63	200	07J0372	1.46	0.65
CTA06-600CW	600	35	63	400	07J0373	1.53	0.68
CTA06-600B	600	50	63	400	07J0370	1.39	0.62
CTA06-600BW	600	50	63	1000	07J0371	1.50	0.67
CTA06-800TW	800	5	63	20	07J0381	1.74	0.77
CTA06-800SW	800	10	63	40	07J0380	1.67	0.74
CTA06-800C	800	25	63	200	07J0378	1.52	0.67
CTA06-800CW	800	35	63	400	07J0379	1.59	0.71
CTA06-800B	800	50	63	400	07J0376	1.44	0.64
CTA06-800BW	800	50	63	1000	07J0377	1.55	0.69
CTA06-1200TW	1200	5	63	20	07J0363	1.89	0.84
CTA06-1200SW	1200	10	63	40	07J0362	1.81	0.81
CTA06-1200C	1200	25	63	200	07J0360	1.67	0.74
CTA06-1200CW	1200	35	63	400	07J0361	1.74	0.77
CTA06-1200B	1200	50	63	400	07J0358	1.59	0.71
CTA06-1200BW	1200	50	63	1000	07J0359	1.70	0.76

82838



HIGH-TEMPERATURE TRIACS

NEW

Applications

- Heat regulation: Ovens, Coffee Makers, Cookers
- Light dimming
- Control of inductive loads: Motors, Transformers
- dv/dt (V/μs) = 300

Type	I _{T(RMS)} (A)	I _{GT} max (mA)	V _{DRM} min (V)	I _{TSM} (A @ 60Hz)	Stock No.	1-9	500-999
CHTA12-400	12	35	400	145	09J5946	1.61	0.81
CHTA24-400	25	50	400	250	09J5950	2.07	1.04
CHTA12-600	12	35	600	126	07J0350	1.65	0.83
CHTA24-600	25	50	600	260	07J0352	2.10	1.05
CHTA12-800	12	35	800	126	07J0351	1.70	0.86
CHTA24-800	25	50	800	260	07J0353	2.15	1.08

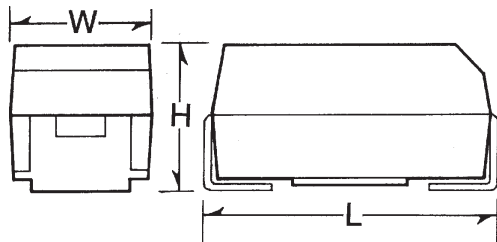
82834



KEMET

NEW

SMD



T491 SERIES TANTALUM CHIP CAPACITORS

- EIA Standards
- Taped and Reeled per EIA 481-1
- Symmetrical, Compliant Terminations
- Laser-Marked Case
- 100% Surge Current Test on C, D, U, V, X Sizes
- Capacitance: 0.1µF to 680µF
- Voltage: 3-50VDC
- Low-Profile Case Sizes
- Suitable for Filtering, Bypassing, RC Timing Applications
- ESR Measured in Ω @+25°C, 100kHz Max.

DIMENSIONS

Case Size	EIA	L	W	H
A	3216	0.126" (3.20)	0.063" (1.60)	0.063" (1.60)
B	3528	0.138" (3.50)	0.110" (2.80)	0.075" (1.90)
C	6032	0.236" (6.00)	0.126" (3.20)	0.098" (2.50)
D	7343	0.287" (7.30)	0.169" (4.29)	0.110" (2.80)
S	3216-12	0.126" (3.2)	0.063" (1.6)	0.0470" (1.2)
X	7343H	0.287" (7.30)	0.169" (4.29)	0.157" (4.00)

10VDC

Type	Case Size	Cap. (µF)	Tol.	ESR (Ω)	Tape Cut		Tape on Reel		
					Stock No.	1-9	Stock No.	Qty	Each
T491A106K010AS	A	10.0	±10%	4	35C4882	0.23	01J3381	2000	0.14
T491B106K010AS	B	10.0	±10%	3.5	40C0093	0.25	01J3396	2000	0.16
T491C226K010AS	C	22.0	±10%	1.8	09B651	0.48	01J3424	500	0.32
T491D476K010AS	D	47.0	±10%	0.8	89F5032	0.68	01J3467	500	0.50
T491D107K010AS	D	100.0	±10%	0.7	09B705	0.83	01J3446	500	0.60
T491D107M010AS	D	100.0	±20%	0.7	09B708	0.81	01J3449	500	0.59
T491D157M010AS	D	150.0	±20%	0.7	09B723	1.13	01J3454	500	0.82
T491X227K010AS	X	220.0	±10%	0.5	92F1849	3.98	01J3481	500	1.80

16VDC

T491A105K016AS	A	1.0	±10%	10	89F5035	0.19	01J3375	2000	0.12
T491B106K016AS	B	10.0	±10%	3.5	93B1351	0.28	01J3397	2000	0.17
T491C106K016AS	C	10.0	±10%	1.8	89F5043	0.48	01J3414	500	0.32
T491C106M016AS	C	10.0	±20%	1.8	96F8742	0.46	01J3417	500	0.31
T491C226K016AS	C	22.0	±10%	1.6	09B652	0.52	01J3425	500	0.35
T491D336K016AS	D	33.0	±10%	0.8	89F5029	0.68	01J3462	500	0.50
T491D107K016AS	D	100.0	±10%	0.7	09B706	1.16	01J3447	500	0.84

20VDC

T491C106K020AS	C	10.0	±10%	1.8	96F8753	0.48	01J3415	500	0.32
T491D226K020AS	D	22.0	±10%	1.2	89F5048	0.68	01J3456	500	0.50
T491D476K020AS	D	47.0	±10%	0.7	09B745	0.83	01J3469	500	0.60

25VDC

T491A105K025AS	A	1.0	±10%	8	93B4181	0.21	01J3377	2000	0.13
T491C475K025AS	C	4.7	±10%	2.4	93F2424	0.48	01J3431	500	0.32
T491C106K025AS	C	10.0	±10%	1.5	09B625	0.52	01J3416	500	0.35
T491D106K025AS	D	10.0	±10%	1	89F5047	0.68	01J3443	500	0.50
T491D226K025AS	D	22.0	±10%	1	09B727	0.68	01J3457	500	0.50

35VDC

T491B105K035AS	B	1.0	±10%	5	89F5037	0.25	01J3393	2000	0.16
T491C475K035AS	C	4.7	±10%	2.5	09B675	0.52	01J3432	500	0.35
T491D106K035AS	D	10.0	±10%	1	93F2975	0.68	83H5062	500	0.50
T491D106M035AS	D	10.0	±20%	1	09B702	0.66	01J3445	500	0.48
T491X226K035AS	X	22.0	±10%	0.7	92F1853	3.22	01J3479	500	1.46

50VDC

T491C105K050AS	C	1.0	±10%	5.5	92F1845	0.62	01J3412	500	0.42
T491D335M050AS	D	3.3	±20%	2	09B732	1.06	01J3460	500	0.77
T491D475K050AS	D	3.3	±20%	2	92F1847	1.11	01J3466	500	0.81

82981

ABOUT the KEMET T491 Series

The leading choice in today's surface mount designs, the KEMET T491 Series meets or exceeds the requirements of EIA standard 535BAAC. This product was designed specifically for today's highly-automated surface mount processes and equipment.

The T491 Series uses the same proven solid tantalum KEMET technology acclaimed and respected throughout the world. Added to this is the latest in materials, processes and automation which result in a component unsurpassed worldwide in total performance and value.

The standard terminations are 100% matte tin and provide excellent wetting characteristics and compatibility with today's surface mount solder systems. Tin-Lead (SnPb) and gold terminations are available upon request for any part number.

The symmetrical terminations offer total compliance to provide the thermal and mechanical stress relief required in today's technology. Lead frame attachments to the tantalum pellet are made via a microprocessor-controlled welding operation, and a high-temperature silver epoxy adhesive system.

Standard packaging of these devices is tape and reel in accordance with EIA 481-1. This system provides perfect compatibility with all tape-fed placement units.

Source: Kemet

CDE CORNELL DUBILIER

NEW

MLP AND MLS FLATPACK ALUMINUM ELECTROLYTIC CAPACITORS

Highlights

- Low-profile replacement for snap-ins
- Double the ripple capability with a heat sink
- Near-hermetic welded seal provides 50-year life

½ Inch Height, 50-Year Life

The MLP's high-energy storage and box-shape make it perfect for voltage holdup or filtering in military SEM-E modules, telecom circuit packs and computer cards. The MLP delivers 25 joules of energy storage in a ½" height with 50 year's life at +45°C. You can readily heatsink it to double the ripple-current capability. Ratings up to 250V can operate at 75% of rated voltage up to +125°C if clamped or potted to prevent expanding beyond ½". Other values available; visit Newark InOne online.



Type	Cap. (µf)	ESR		Ripple Current Max. @ 85°C (A)		Case Code	Stock No.	Each
		Max. 120Hz	mΩ 20kHz	120Hz	20kHz			
MLP562M035EK0A	5.6	90	70	3.4	4.4	EK	39C6228	48.58
MLP143M035EB0A	14.0	35	27	8.4	9.6	EB	03H8353	68.00
50VDC (63VDC SURGE)								
MLP442M050EK0A	4.4	97	70	3.7	4.4	EK	85H0200	48.58
MLP113M050EB0A	11.0	36	27	8.3	9.6	EB	25H9593	60.72
100VDC (125VDC SURGE)								
MLP112M100EK0A	1.1	112	78	3.5	4.2	EK	85H0182	48.58
MLP272M100EB0A	2.7	46	33	7.4	8.7	EB	85H0191	60.72
200VDC (250VDC SURGE)								
MLP401M200EK0A	400.0	388	253	1.9	2.3	EK	85H0198	48.58
MLP102M200EB0A	1.0	158	100	3.8	5.0	EB	85H0181	60.72
250VDC (300VDC SURGE)								
MLP331M250EK0A	330.0	426	258	1.8	2.3	EK	85H0193	48.58
MLP821M250EB0A	820.0	172	103	3.8	4.9	EB	85H0206	60.72
420VDC (475VDC SURGE)								
MLP331M420EB0A	330.0	530	390	2.1	2.5	EB	02H5934	68.00

83008

UNITED CHEMI-CON

36DA SERIES LARGE CAN ALUMINUM CAPACITORS

Features

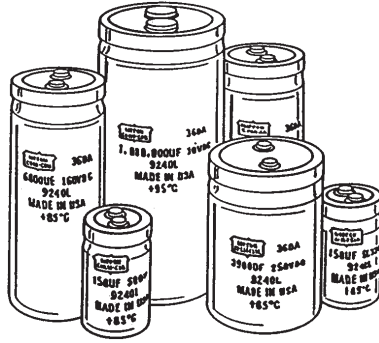
- High Capacitance Ratings for High Energy Storage
- Low ESR for High Ripple Current
- PVC Insulating Sleeve

Applications

- High-Wattage Power Supplies Requiring a Large Amount of Ripple Current
- Energy Storage

Specifications

- Tolerance: -10% to +50%
- Operating Temperature: 6.3VDC to 100VDC: -40°C to +95°C
125 to 500VDC: -40°C to +85°C
36D Series: -40°C to +85°C



Case Code	Dia. D ± 0.032	Length L ± 0.063	Case Code	Dia. D ± 0.032	Length L ± 0.063
AA	1.375"	2.125"	BL	2.000"	3.625"
AB	1.375"	3.125"	BM	2.000"	2.625"
AC	1.375"	4.125"	BN	2.000"	1.625"
AD	1.375"	4.625"	CB	2.500"	3.125"
AE	1.375"	5.125"	CC	2.500"	4.125"
AL	1.375"	3.625"	CD	2.500"	4.625"
AM	1.375"	2.625"	DC	3.000"	4.125"
AN	1.375"	1.625"	DD	3.000"	4.625"
BA	2.000"	2.125"	DJ	3.000"	8.625"
BB	2.000"	3.125"	DL	3.000"	3.625"
BC	2.000"	4.125"	76 x 130	3.078"	5.250"
BD	2.000"	4.625"	76 x 143	3.078"	5.750"
BE	2.000"	5.125"	89 x 120	3.578"	5.250"
BF	2.000"	5.625"	...	...	...

Type	Cap. (µF)	VV DC	Case Code	Stock No.	1-9	10-49
36DA183F016AN2A	18,000	16	AN	95F4431	8.04	6.61
36DA333F016AA2A	33,000	16	AA	95F4432	8.29	6.82
36DA104F016AD2A	100,000	16	AD	95F4436	11.59	9.53
36DA123F025AA2A	12,000	25	AA	95F4439	8.61	7.08
36DA683F025BL2A	68,000	25	BL	95F4445	15.93	13.10
36DA183F035AB2A	18,000	35	AB	95F4449	9.95	8.18
36DA392F050AN2A	3,900	50	AN	95F4452	8.14	6.70
36DA682F050AA2A	6,800	50	AA	95F4453	8.18	7.14
36DA103F050AM2A	10,000	50	AM	95F4455	9.20	7.57
36DA123F050AB2A	12,000	50	AB	95F4456	8.93	7.35
36DA183F050BM2A	18,000	50	BM	95F4458	12.83	10.55
36DA273F050BB2A	27,000	50	BB	95F4460	14.54	11.96
36DA393F050BC2A	39,000	50	BC	95F4461	18.63	15.32
36DA473F050CB2A	47,000	50	CB	95F4462	23.19	19.08
36DA104F050DC2A	100,000	50	DC	95F4465	40.20	33.07
36DA222F100AA2A	2,200	100	AA	95F4469	8.31	6.84
36DA332F100AM2A	3,300	100	AM	95F4471	9.35	7.69
36DA472F100AL2A	4,700	100	AL	95F4473	11.24	9.25
36DA682F100AD2A	6,800	100	AD	95F4475	11.78	9.69
36DA103F100BL2A	10,000	100	BL	95F4476	18.23	15.00
36DA223F100CD2A	22,000	100	CD	95F4479	33.06	27.20
36DA393F100DD2A	39,000	100	DD	95F4481	52.75	43.39
36DA102F200AM2A	1,000	200	AM	95F4485	9.75	8.02
36DA222F200BM2A	2,200	200	BM	95F4488	14.34	11.80
36DA472F200CB2A	4,700	200	CB	95F4493	21.70	17.85
36DA472F250BF2A	4,700	250	BF	95F4502	25.10	20.65
36DA103F250DD2A	10,000	250	DD	95F4503	45.78	37.66
36DA332F350CD2A	3,300	350	CD	95F4509	46.27	38.06
36DA562F350DD2A	5,600	350	DD	95F4511	73.68	60.61
36DA221F450AA2A	220	450	AA	95F4513	10.17	8.37
36DA561F450AC2A	560	450	AC	95F4516	15.63	12.86
36DA102F450BL2A	1,000	450	BL	95F4518	26.42	21.73
36DA222F450CC2A	2,200	450	CC	95F4519	50.05	41.17

82964

CDE CORNELL DUBILIER

NEW

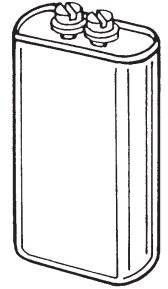
YORK METALIZED POLYPROPYLENE AC CAPACITORS

Features:

- Dielectric: Low loss, self-healing metallized polypropylene
- Casing: Oval and round tin-plated steel
- Oil: Non-PCB, environmentally safe

Specifications:

- Temperature range: -25°C to +70°C
- Operating frequency: 50-60Hz



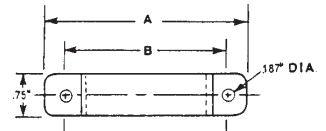
Case Code:	A	C	D	P	S	T	Tolerance
Common Name:	1.25" oval	1.75" oval	2" oval	1.75" round	2" round	2.5" round	...
X-dimension:	2.05	2.78	3.53	1.75	2	2.5	± 0.03"
Y-dimension:	2.16	2.91	3.66	1.87	2.12	2.62	± 0.06"
Z-dimension:	1.31	1.91	1.97	---	---	---	± 0.06"
H-dimension:	Heights vary with capacitance and voltage rating. See ratings table.						

Type	Case Code	Voltage	Cap. (µF)	Stock No.	Each
SFA37510K288B	A	370	10	09J1895	13.59
SFA37512.5K288B	A	370	12.5	09J1896	15.20
SFA3755K219B	A	370	5	09J1897	11.17
SFA3757.5K219B	A	370	7.5	09J1898	11.58
SFA44S10K375B	A	440	10	09J1899	17.35
SFA44S5K219B	A	440	5	09J1900	12.71
SFA44S7.5K288B	A	440	7.5	09J1901	13.70
SFA66S1K219B	A	660	1	09J1902	7.07
SFA66S2K219B	A	660	2	09J1903	7.25
SFA66S3K288B	A	660	3	09J1904	13.37
SFA66S4K288B	A	660	4	09J1905	13.91
SFA66S5K375B	A	660	5	09J1906	16.33
SFA66S8K475B	A	660	8	09J1908	22.61
SFC37S15K288B	C	370	15	09J1909	6.07
SFC37S20K291B	C	370	20	09J1910	20.41
SFC37S25K291B	C	370	25	09J1911	21.37
SFC44S15K291B	C	440	15	09J1912	17.10
SFC44S20K391B	C	440	20	09J1913	23.84
SFC44S25K391B	C	440	25	09J1914	27.23
SFC66S12K391B	C	660	12	09J1916	27.50
SFC66S15K391B	C	660	15	09J1917	29.16
SFD66S25K391B	D	660	25	09J1919	45.54
SFD66S30K391B	D	660	30	09J1920	48.44
SFP37S20K238B	P	370	20	09J1921	19.07
SFP37S30K288B	P	370	30	09J1922	22.88
SFP44S15K288B	P	440	15	09J1923	19.07
SFP44S20K288B	P	440	20	09J1924	20.52
SFS37S35K288B	S	370	35	09J1925	25.83
SFS37S40K288B	S	370	40	09J1926	26.90
SFS37S50K375B	S	370	50	09J1927	29.86
SFS44S30K288B	S	440	30	09J1928	27.23
SFT37S60K303B	T	370	60	09J1929	38.34
SFT44S40K391B	T	440	40	09J1930	34.10
SFT44S50K391B	T	440	50	09J1931	37.00

82963

NEW

CDE CORNELL DUBILIER



K SERIES MOUNTING HARDWARE

Most popular values listed, other values available; visit Newark InOne online.

MOUNTING HARDWARE FOR K SERIES CAPACITORS

Type	Base Size	Dimensions		Stock No.	1-49	50-99
		A	B			
30393-5	KK	3.046"	2.546"	87F6852	1.08	1.03

PROTECTIVE BOOT

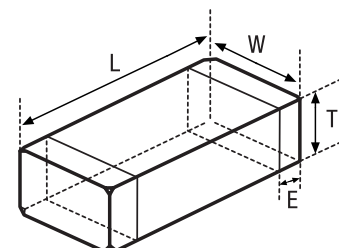
30393-9	...	3.812"	3.312"	87F6850	1.09	0.83
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82967



CE MK SERIES ULTRA SMALL MULTILAYER CERAMIC CAPACITORS

Features the use of Nickel for both internal and external electrodes to improve the solderability and heat resistance characteristics that raises the level of reliability. Low equivalent series resistance, higher permissible ripple current values, smaller case sizes, and improved reliability. Can be used for general digital circuits, as power supply bypass capacitors for liquid crystal modules, and as smoothing capacitors for DC-DC converters.



0603 CASE SIZE (L=1.6±0.05mm, W=0.8±0.05mm, E=0.35±0.25mm)

Type	Capacitance (mF)	Voltage (VDC)	Thickness T (mm)	Cut Tape			Tape on Reel		
				Stock No.	1-99	100-499	Stock No.	Quantity	Each
CE TMK107 BJ223KA-T	0.022 ± 10%	25	0.8	86H5301	0.03	0.02	83H9617	4000	0.02
CE EMK107 BJ473KA-T	0.047 ± 10%	16	0.8	86H5250	0.87	0.78	83H9566	4000	0.03
CE TMK107 BJ104KA-T	0.1 ± 10%	25	0.8	86H5300	0.03	0.03	83H9616	4000	0.02
CE EMK107 BJ224KA-T	0.22 ± 10%	16	0.8	86H5249	0.05	0.04	83H9565	4000	0.03
CE JMK107 BJ474KK-T	0.47 ± 10%	6.3	0.45	86H5269	0.10	0.09	83H9585	4000	0.06
CE LMK107 F105ZA-T	1 +80/-20%	10	0.8	86H5287	0.04	0.03	83H9603	4000	0.02
CE EMK107 BJ105KA-T	1 ± 10%	16	0.031	18J2659	0.06	0.05	22J1076	4000	0.06
CE TMK107 BJ105KA-T	1 ± 10%	25	0.031	18J2750	0.05	0.04	22J1092	4000	0.05
CE JMK107 BJ225KA-T	2.2 ± 10%	6.3	0.8	86H5268	0.15	0.14	83H9584	4000	0.09

0805 CASE SIZE (L=2.0±0.10mm, W=1.25±0.10mm, E=0.35±0.25mm)

CE UMK212 BJ223KD-T	0.022 ± 10%	50	0.85	86H5311	0.07	0.07	83H9627	4000	0.04
CE UMK212 BJ473KG-T	0.047 ± 10%	50	1.25	86H5313	0.08	0.07	83H9629	3000	0.05
CE UMK212 BJ104KG-T	0.1 ± 10%	50	1.25	86H5310	0.06	0.05	83H9626	3000	0.04
CE GMK212 BJ474KG-T	0.47 ± 10%	35	1.25	86H5264	0.17	0.15	83H9580	3000	0.10
CE JMK212 BJ105KK-T	1 ± 10%	6.3	0.45	86H5271	0.20	0.18	83H9587	4000	0.12
CE LMK212 BJ105KG-T	1 ± 10%	10	1.25	86H5292	0.06	0.05	83H9608	3000	0.03
CE EMK212 BJ105KD-T	1 ± 10%	16	0.85	86H5251	0.11	0.10	83H9567	4000	0.06
CE EMK212 BJ105KG-T	1 ± 10%	16	1.25	86H5252	0.06	0.05	83H9568	3000	0.04
CE UMK212 F105ZG-T	1 +80/-20%	50	1.25	86H5309	0.08	0.07	83H9625	3000	0.04
CE LMK212 BJ225KD-T	2.2 ± 10%	10	0.033	18J2722	0.08	0.07	22J1085	4000	0.08
CE JMK212 BJ475KD-T	4.7 ± 10%	6.3	0.85	86H5273	0.21	0.19	83H9589	4000	0.12
CE LMK212 BJ475KG-T	4.7 ± 10%	10	0.049	18J2727	0.13	0.12	22J1087	3000	0.13
CE LMK212 BJ475KD-T	4.7 ± 10%	10	0.033	18J2726	0.14	0.13	22J1086	3000	0.14
CE JMK212 BJ106KD-T	10 ± 10%	6.3	0.033	18J2700	0.26	0.24	22J1081	4000	0.26
CE JMK212 BJ106KG-T	10 ± 10%	6.3	1.25	86H5272	0.30	0.27	83H9588	3000	0.17
CE LMK212 F106ZG-T	10 +80/-20%	10	1.25	86H5290	0.24	0.22	83H9606	3000	0.14
CE LMK212 BJ106KG-T	10 ± 10%	10	0.049	18J2720	0.21	0.19	22J1084	3000	0.21

1206 CASE SIZE (L=3.2±0.15mm, W=1.6±0.5mm, E=0.5±0.35mm)

CE TMK316 BJ224KF-T	0.22 ± 10%	25	1.15	86H5303	0.11	0.10	83H9619	3000	0.06
CE UMK316 BJ224KL-T	0.22 ± 10%	50	1.6	86H5314	0.16	0.14	83H9630	2000	0.09
CE UMK316 BJ474KL-T	0.47 ± 10%	50	1.6	86H5315	0.18	0.16	83H9631	2000	0.10
CE EMK316 BJ105KF-T	1 ± 10%	16	1.15	86H5255	0.10	0.09	83H9571	3000	0.06
CE GMK316 BJ105KL-T	1 ± 10%	35	1.6	86H5265	0.21	0.19	83H9581	2000	0.12
CE EMK316 BJ225KD-T	2.2 ± 10%	16	0.85	86H5256	0.12	0.11	83H9572	4000	0.07
CE LMK316 BJ475KL-T	4.7 ± 10%	10	1.6	86H5295	0.13	0.12	83H9611	2000	0.07
CE EMK316 F106ZL-T	10 +80/-20%	16	1.6	86H5254	0.20	0.18	83H9570	2000	0.11
CE JMK316 BJ106KL-T	10 ± 10%	6.3	1.6	86H5276	0.35	0.32	83H9592	2000	0.20
CE EMK316 BJ106KL-T	10 ± 10%	16	0.063	18J2678	0.20	0.18	22J1080	2000	0.20
CE TMK316 BJ106KL-T	10 ± 10%	25	0.063	18J2766	0.22	0.19	22J1095	2000	0.22
CE JMK316 BJ226KL-T	22 ± 10%	6.3	1.6	86H5277	0.92	0.83	83H9593	2000	0.52

1210 CASE SIZE (L=3.2±0.30mm, W=2.5±0.20mm, E=0.6±0.3mm)

CE TMK325 BJ105KD-T	1 ± 10%	25	0.85	86H5304	0.55	0.49	83H9620	2000	0.31
CE UMK325 BJ105KH-T	1 ± 10%	50	1.5	86H5316	0.30	0.27	83H9632	2000	0.17
CE GMK325 BJ225KN-T	2.2 ± 10%	35	1.9	86H5267	0.45	0.41	83H9583	2000	0.26
CE EMK325 BJ475KN-T	4.7 ± 10%	16	1.9	86H5261	0.30	0.27	83H9577	2000	0.17
CE TMK325 BJ475KN-T	4.7 ± 10%	25	1.9	86H5307	0.30	0.27	83H9623	2000	0.17
CE TMK325 BJ106MY-T	10 ± 10%	25	0.079	18J2778	0.40	0.36	22J1098	2000	0.40
CE TMK325 BJ106MM-T	10 ± 20%	25	2.5	86H5305	0.56	0.50	83H9621	500	0.32
CE JMK325 BJ226KM-T	22 ± 10%	6.3	2.5	86H5281	0.78	0.70	83H9597	500	0.44
CE EMK325 BJ226MM-T	22 ± 20%	16	2.5	86H5260	1.10	0.99	83H9576	500	0.49
CE LMK325 BJ476MM-T	47 ± 10%	10	0.098	18J2743	0.84	0.78	22J1091	500	0.84
CE JMK325 F107ZM-T	100 +80/-20%	6.3	2.5	86H5278	2.20	1.98	83H9594	500	1.25

1812 CASE SIZE (L=4.5±0.40mm, W=3.2±0.30mm, E=0.9±0.6mm)

CE EMK432 BJ226MM-T	22 ± 20%	16	2.5	86H5262	1.58	1.42	83H9578	500	0.90
CE LMK432 BJ226MM-T	22 ± 20%	10	2.5	86H5299	0.92	0.83	83H9615	500	0.52
CE JMK432 BJ476MM-T	47 ± 20%	6.3	2.5	86H5286	4.03	3.62	83H9602	500	2.29
CE JMK432 F107ZM-T	100 +80/-20%	6.3	2.5	86H5284	2.56	2.30	83H9600	500	1.46

82953



NEW

RESISTOR AND SURFACE MOUNT CAPACITOR LAB KITS

Capacitor kits provide all standard values of the series for engineering design purposes. Components are supplied in labeled boxes and conveniently stored in plastic cases for easy access. Replacement components are readily available; visit Newark InOne online.



LOW ESR NPO CERAMIC CAPACITOR KITS

	Type	Size	Range	Values	Qty.	Stock No.	Each
AVX <small>A KYOCERA GROUP COMPANY</small>	AVXCAPC040215S10	0402	0.5pF-15pF	15	10	49H6632	58.52
	AVXCAPC040215S25	0402	0.5pF-15pF	15	25	49H6633	110.39
	AVXCAPC060323S10	0603	1pF-47pF	23	10	49H6634	130.34
	AVXCAPC060323S25	0603	1pF-47pF	23	25	49H6635	280.63
	AVXCAPC080530S10	0805	1pF-160pF	30	10	49H6638	119.70
	AVXCAPC080530S25	0805	1pF-160pF	30	25	49H6639	219.45

CERAMIC CAPACITOR KITS

AVX <small>A KYOCERA GROUP COMPANY</small>	AVXCAPC060367S25	0603	1pF-0.1µF	61	25	49H6637	371.07
	AVXCAPC060367S100	0603	1pF-0.1µF	61	100	49H6636	754.11
	AVXCAPC080570S100	0805	0.5pF-1µF	64	100	49H6640	885.78
	AVXCAPC120667S25	1206	1pF-0.1µF	62	25	49H6643	452.20
	AVXCAPC120667S100	1206	1pF-0.1µF	62	100	49H6642	978.88

CERAMIC CAPACITOR KITS

VISHAY	BCCCAPC060354S25	0603	1pF-0.1µF	54	25	49H6651	224.77
	BCCCAPC060354S100	0603	1pF-0.1µF	54	100	49H6650	462.84
	BCCCAPC080561S25	0805	1pF-0.1µF	61	25	49H6653	266.00
	BCCCAPC080561S100	0805	1pF-0.1µF	61	100	49H6652	554.61

THIN FILM ACCU-P CAPACITOR KITS

AVX <small>A KYOCERA GROUP COMPANY</small>	AVXACCU060330S5	0603	0.1pF-22pF	30	5	49H6629	214.13
	AVXACCU060330S25	0603	0.1pF-22pF	30	25	49H6628	606.48
	AVXACCU080529S5	0805	0.2pF-47pF	29	5	49H6631	262.01
	AVXACCU080529S25	0805	0.2pF-47pF	29	25	49H6630	812.63

TANTALUM CAPACITOR KITS

AVX <small>A KYOCERA GROUP COMPANY</small>	AVXCAPT32S10	A-E	0.1µF-100µF	32	10	49H6644	293.93
	AVXCAPT32S25	A-E	0.1µF-100µF	32	25	49H6645	630.42

CERAMIC CAPACITOR KITS — MOST POPULAR VALUES

AVX <small>A KYOCERA GROUP COMPANY</small>	AVXCAPC040226ABN10	0402	1pF - 0.1µF	26	10	02J4684	94.43
	AVXCAPC040226ABS10	0402	1pF - 0.1µF	26	10	02J4685	62.51
	AVXCAPC060330ABN10	0603	1pF - 1µF	30	10	02J4686	77.14
	AVXCAPC060330ABS10	0603	1pF - 1µF	30	10	02J4687	46.55
	AVXCAPC080530ABN10	0805	1pF - 10µF	30	10	02J4688	81.13
	AVXCAPC080530ABS10	0805	1pF - 10µF	30	10	02J4689	49.21
	AVXCAPC120630ABN10	1206	1pF - 22µF	30	10	02J4690	94.43
	AVXCAPC120630ABS10	1206	1pF - 22µF	30	10	02J4691	65.17

POLYMER ALUMINUM ELECTROLYTIC CAPACITOR KITS

CDE	CORNELL DUBILIER	CDECAPPESR5S5	D	8.2µF-180µF	5	5	49H6669	103.74
		CDECAPPESRD10S5	D	8.2µF-180µF	10	5	49H6668	139.65

RESISTOR KITS

Resistor kits provide all standard values of the series for engineering design purposes. Components are supplied in labeled boxes and conveniently stored in plastic cases for easy access. Replacement components are readily available; visit Newark InOne online.

1% RESISTOR KITS - MOST POPULAR VALUES

VISHAY	Type	Size	Range	Values	Qty.	Stock No.	Each
	DALERES0402F250ABN50*	0402	000,10-1M	250	50	02J4698	303.24
	DALERES0402F250ABS50	0402	000,10-1M	250	50	02J4699	198.71
	DALERES0603F250ABN50*	0603	000,10-1M	250	50	02J4702	215.46
	DALERES0603F250ABS50	0603	000,10-1M	250	50	02J4703	160.93
	DALERES0805F250ABN50*	0805	000,10-1M	250	50	02J4706	276.64
	DALERES0805F250ABS50	0805	000,10-1M	250	50	02J4707	182.21
	DALERES1206F250ABN50*	1206	000,10-1M	250	50	02J4710	271.32
	DALERES1206F250ABS50	1206	000,10-1M	250	50	02J4711	215.46

5% RESISTOR KITS - MOST POPULAR VALUES

VISHAY	DALERES0402J67ABN50*	0402	1-1M	67	25	02J4700	105.07
	DALERES0402J67ABS50	0402	1-1M	67	50	02J4701	83.79
	DALERES0603J67ABN50*	0603	1-1M	67	50	02J4704	99.75
	DALERES0603J67ABS50	0603	1-1M	67	50	02J4705	77.14
	DALERES0805J67ABN50*	0805	1-1M	67	50	02J4708	93.10
	DALERES0805J67ABS50	0805	1-1M	67	50	02J4709	71.82
	DALERES1206J67ABN50*	1206	000,10-1M	67	50	02J4712	99.75
	DALERES1206J67ABS50	1206	000,10-1M	67	50	02J4713	77.14

*Notebook case

82867

WSL SERIES POWER METAL STRIP® RESISTORS



Features

- Solid Metal Nickel-Chrome or Manganese-Copper Alloy Resistive Element
- Solderable Terminations

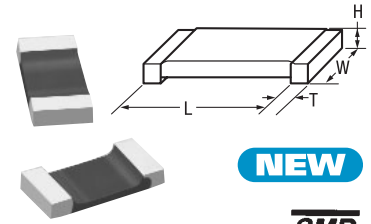
- Excellent Frequency Response
- Low Thermal EMF
- Very Low Inductance: 0.5nH to 5nH

Specifications

- Tolerance: ±1%
- Operating Temp.: -65°C to +170°C
- Temperature Coefficient: ±75ppm/°C

Applications

- Ideal for All Types of Current Sensing, Voltage Division and Pulse Applications Including Switching and Linear Power Supplies, Instruments, and Power Amplifiers



NEW



PRODUCT SPECIFICATIONS IN TYPE NO.

WSL-1206	.006	1%
Series	Resistance (Ω)	Tolerance

DIMENSIONS (mm)

Model	Resistance Range (Ω)	L	W	H	T
WSL0805	0.01 - 0.2	0.080 ± 0.010"	0.050 ± 0.010"	0.013 ± 0.005"	0.015 ± 0.010"
		(2.03 ± 0.254)	(1.27 ± 0.254)	(0.330 ± 0.127)	(0.381 ± 0.254)
WSL1206	0.002 - 0.2	0.126 ± 0.010"	0.063 ± 0.010"	0.025 ± 0.010"	0.020 ± 0.010"
		(3.20 ± 0.254)	(1.60 ± 0.254)	(0.635 ± 0.254)	(0.508 ± 0.254)

EIA SIZE 0805, 0.125W

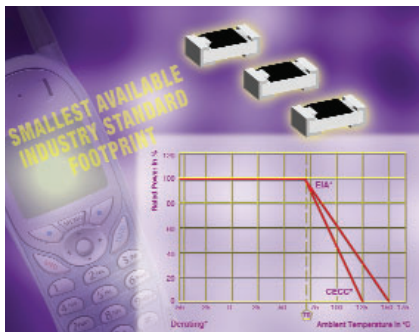
Type	Ohms	Stock No.	Each
WSL0805 0.01<1%	0.01	06H0455	0.76
WSL0805 0.015<1%	0.015	06H0456	0.76
WSL0805 0.15<1%	0.15	06H0457	0.63

EIA SIZE 1206, 0.25W

WSL1206 0.003<1%	0.003	06H0458	0.98
WSL1206 0.005<1%	0.005	06H0459	0.94
WSL-1206 .006<1%	0.006	20C1583	0.94
WSL1206 0.008<1%	0.008	06H0460	0.94
WSL-1206 .010<1%	0.01	20C1591	0.71
WSL1206 0.011<1%	0.011	06H0461	0.71
WSL1206 0.012<1%	0.012	06H0462	0.71
WSL1206 0.014<1%	0.014	06H0463	0.71
WSL1206 0.015<1%	0.015	06H0464	0.71
WSL1206 0.016<1%	0.016	06H0465	0.71
WSL1206 0.017<1%	0.017	06H0466	0.71
WSL-1206 .020<1%	0.02	20C1601	0.71
WSL1206 0.021<1%	0.021	06H0467	0.71
WSL1206 0.022<1%	0.022	06H0468	0.71
WSL1206 0.023<1%	0.023	06H0469	0.71
WSL-1206 .025<1%	0.025	20C1606	0.71
WSL-1206 .033<1%	0.033	20C1614	0.71
WSL1206 0.04<1%	0.04	06H0470	0.71
WSL1206 0.043<1%	0.043	06H0471	0.71
WSL-1206 .047<1%	0.047	20C1628	0.71
WSL-1206 .050<1%	0.05	20C1631	0.71
WSL1206 0.051<1%	0.051	06H0472	0.71
WSL1206 0.06<1%	0.06	06H0473	0.71
WSL1206 0.065<1%	0.065	06H0474	0.71
WSL-1206 .066<1%	0.066	20C1645	0.71
WSL1206 0.067<1%	0.067	06H0475	0.71
WSL1206 0.07<1%	0.07	06H0476	0.60
WSL-1206 .075<1%	0.075	20C1654	0.60
WSL1206 0.08<1%	0.08	06H0477	0.60
WSL1206 0.082<1%	0.082	06H0478	0.60
WSL-1206 .090<1%	0.09	20C1669	0.60
WSL-1206 .100<1%	0.1	20C1679	0.60
WSL1206 0.13<1%	0.13	06H0479	0.60
WSL1206 0.14<1%	0.14	06H0480	0.60
WSL1206 0.15<1%	0.15	06H0481	0.60
WSL1206 0.178<1%	0.178	06H0482	0.60
WSL1206 0.2<1%	0.2	06H0483	0.60

Visit Newark InOne online.

82871



CRCW SERIES THICK FILM CHIP RESISTORS

New thick film rectangular chip resistor designed with the industry's smallest footprint enables downsizing where board space is critical. Packaged in an industry standard 0201 case measuring just 0.024" (0.6 mm) by 0.012" (0.3 mm), and with a height profile of just 0.009" (0.23 mm), the new **CRCW** chip resistor is well suited for applications in compact end products including memory modules, cell phones, PCMCIA cards, hearing aids, sensors, frequency control devices, and notebook computers. The power rating is 50mW, a maximum working voltage of 30V, and a standard TCR value of ±200 ppm/°C. A broad resistance range is offered from 10ohms to 1Mohms, including E24-range values, and a tolerance of ±5%. With flow-solderable terminations featuring a nickel barrier layer, the **CRCW** is compatible with automatic placement equipment for easy integration into compact systems. A metal glaze on high-quality ceramic and a protective overglaze improves resistance to demanding environmental conditions. It is rated for operation from -55°C to +125°C. Also meets specifications including CECC40000/40400/EN 140 400/IEC 60115 - 1, EIA 575, and MIL-PRF-55342. Samples of the **CRCW** thick film chip resistor are available now. Also available in case sizes 0402, 0603, 0805, 1206, 1210, 2010, and 2512. For a complete listing of stocked values; visit *Newark InOne* online.

CRCW 0402

Type	Resistance	Tolerance	Stock No.	Each
CRCW04020000Z Jumper	0 Ohm	+/- 1%	28C3302	0.07
CRCW04022001F100	2 kOhm	+/- 1%	96C9626	0.07
CRCW04024991F100	4.99 kOhm	+/- 1%	16F5086	0.07
CRCW04021002F100	10 kOhm	+/- 1%	96C9543	0.07
CRCW04024999F100	49.9 Ohm	+/- 1%	96C9740	0.07
CRCW04021000F100	100 Ohm	+/- 1%	17C7358	0.07

CRCW 0603

Type	Resistance	Tolerance	Stock No.	Each
CRCW06031001F100	1 kOhm	+/- 1%	66F9079	0.07
CRCW06031004F100	1 mOhm	+/- 1%	66F9077	0.07
CRCW06031501F100	1.5 kOhm	+/- 1%	48F4406	0.07
CRCW06032001F100	2 kOhm	+/- 1%	66F9080	0.07
CRCW06031002F100	10 kOhm	+/- 1%	66F9086	0.07
CRCW060310R0F100	10 Ohm	+/- 1%	66F9062	0.07
CRCW06032002F100	20 kOhm	+/- 1%	48F4408	0.07
CRCW06034992F100	49.9 kOhm	+/- 1%	66F9073	0.07
CRCW06034999F100	49.9 Ohm	+/- 1%	92B6377	0.01
CRCW06031000F100	100 Ohm	+/- 1%	66F9065	0.07
CRCW06031003F100	100 kOhm	+/- 1%	66F9075	0.01
CRCW06032000F100	200 Ohm	+/- 1%	48F4404	0.07

CRCW 0805

Type	Resistance	Tolerance	Stock No.	Each
CRCW08051001F100	1 kOhm	+/- 1%	05F1507	0.07
CRCW08051004F100	1 MOhm	+/- 1%	66F9005	0.07
CRCW08051501F100	1.5 kOhm	+/- 1%	48F4422	0.07
CRCW08052001F100	2 kOhm	+/- 1%	05F1508	0.07
CRCW08053321F100	3.32 kOhm	+/- 1%	92B7031	0.07

CRCW 0805

Type	Resistance	Tolerance	Stock No.	Each
CRCW08054701F100	4.7 kOhm	+/- 1%	25C1894	0.07
CRCW08054751F100	4.75 kOhm	+/- 1%	66F9000	0.07
CRCW08054991F100	4.99 kOhm	+/- 1%	05F1510	0.07
CRCW08051002F100	10 kOhm	+/- 1%	05F1511	0.07
CRCW080510R0F100	10 Ohm	+/- 1%	66F9006	0.07
CRCW08051212F100	12.1 kOhm	+/- 1%	92B6735	0.07
CRCW08051502F100	15 kOhm	+/- 1%	19C6518	0.07
CRCW08052002F100	20 kOhm	+/- 1%	05F1512	0.07
CRCW08052212F100	22.1 kOhm	+/- 1%	92B6928	0.07
CRCW08054992F100	49.9 kOhm	+/- 1%	92B7206	0.07
CRCW08054999F100	49.9 Ohm	+/- 1%	05F1503	0.07
CRCW080551R1F100	51.1 Ohm	+/- 1%	05F1504	0.07
CRCW080575R0F100	75 Ohm	+/- 1%	66F9009	0.07
CRCW08051000F100	100 Ohm	+/- 1%	05F1505	0.07
CRCW08051003F100	100 kOhm	+/- 1%	05F1513	0.07
CRCW08051200F100	120 Ohm	+/- 1%	48F4420	0.07
CRCW08051500F100	150 Ohm	+/- 1%	66F9010	0.07
CRCW08052000F100	200 Ohm	+/- 1%	66F9011	0.07
CRCW08052003F100	200 kOhm	+/- 1%	66F9003	0.07
CRCW08052200F100	220 Ohm	+/- 1%	48F4421	0.07
CRCW08053300F100	330 Ohm	+/- 1%	97C7853	0.07
CRCW08054750F100	475 Ohm	+/- 1%	92B7176	0.07
CRCW08054990F100	499 Ohm	+/- 1%	92B7200	0.07

CRCW 1206

Type	Resistance	Tolerance	Stock No.	Each
CRCW12060000Z	0 Ohm	+/- 1%	36C9806	0.09
CRCW12061001F100	1 kOhm	+/- 1%	05F1545	0.09
CRCW12061004F100	1 mOhm	+/- 1%	05F1587	0.09
CRCW12061501F100	1.5 kOhm	+/- 1%	05F1548	0.01
CRCW12062001F100	2 kOhm	+/- 1%	05F1550	0.01
CRCW12063321F100	3.32 kOhm	+/- 1%	05F1555	0.01
CRCW12064701F100	4.7 kOhm	+/- 1%	29C8156	0.01
CRCW12064991F100	4.99 kOhm	+/- 1%	05F1560	0.01
CRCW12065111F100	5.11 kOhm	+/- 1%	05F1561	0.01
CRCW12061002F100	10 kOhm	+/- 1%	05F1568	0.09
CRCW120610R0F100	10 Ohm	+/- 1%	66F9053	0.09
CRCW12061502F100	15 kOhm	+/- 1%	05F1569	0.09
CRCW12062002F100	20 kOhm	+/- 1%	05F1571	0.09
CRCW12064992F100	49.9 kOhm	+/- 1%	05F1578	0.09
CRCW12064999F100	49.9 Ohm	+/- 1%	05F1522	0.09
CRCW12061000F100	100 Ohm	+/- 1%	05F1528	0.09
CRCW12061003F100	100 kOhm	+/- 1%	05F1581	0.09
CRCW12061500F100	150 Ohm	+/- 1%	05F1531	0.09
CRCW12062210F100	221 Ohm	+/- 1%	05F1533	0.09
CRCW12063010F100	301 Ohm	+/- 1%	05F1535	0.09
CRCW12064700F100	470 Ohm	+/- 1%	28C6796	0.09
CRCW12064750F100	475 Ohm	+/- 1%	92B7912	0.09
CRCW12064990F100	499 Ohm	+/- 1%	05F1539	0.09
CRCW12064999F100	49.9 Ohm	+/- 1%	05F1522	0.09
CRCW12065111F100	5.11 kOhm	+/- 1%	05F1561	0.01

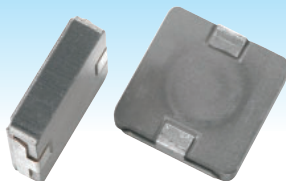
Engineer design kits and tape on reel also available; visit *Newark InOne* online.

83004



NEW

SMD



IHLP SERIES LOW-PROFILE, HIGH-CURRENT INDUCTORS

Features

- Rated for saturation currents up to 84A
- Lowest height (3.0mm) in this package footprint
- Shielded construction
- Frequency range up to 5.0MHz
- Typical DCR values as low as 0.8mΩ
- Handles high transient current spikes without saturation
- Ultra-low buzz noise, due to composite construction
- 100% lead (Pb) free

Applications

- PDA/Notebook/Desktop/Server applications
- High-current POL converters
- Low profile, high current power supplies
- Battery powered devices
- DC/DC converters in distributed power systems
- DC/DC converter for Field Programmable Gate Array (FPGA)

IHLP-2525CZ-01 SERIES

Type	L ₀ @100kHz, .25V, 0A (µH)±20%	DCR Max. @25°C (mΩ)	Heat Rating I _{DC} (A)	Cut Tape	
				Stock No.	Each
IHLP-2525CZ-01 .1UH 20%	0.1	1.7	32.5	45C2534	1.71
IHLP-2525CZ-01 .15UH 20%	0.15	2.5	26	01H0629	1.71
IHLP-2525CZ-01 .2UH 20%	0.2	3	24	45C2535	1.71
IHLP-2525CZ-01 .22UH 20%	0.22	2.8	23	92C8223	1.71
IHLP-2525CZ-01 .33UH 20%	0.33	3.9	20	01H0630	1.71
IHLP-2525CZ-01 .47UH 20%	0.47	4.2	17.5	45C2536	1.71
IHLP-2525CZ-01 .68UH 20%	0.68	5.5	15.5	45C2537	1.71
IHLP-2525CZ-01 .82UH 20%	0.82	8	13	01H0631	1.71
IHLP-2525CZ-01 1UH 20%	1	10	11	45C2538	1.71
IHLP-2525CZ-01 1.5UH 20%	1.5	15	9	45C2539	1.70
IHLP-2525CZ-01 2.2UH 20%	2.2	20	8	45C2540	1.71
IHLP-2525CZ-01 3.3UH 20%	3.3	30	6	45C2541	1.71
IHLP-2525CZ-01 4.7UH 20%	4.7	40	5.5	45C2542	1.71
IHLP-2525CZ-01 10UH 20%			3	01H0632	2.05

82948

OHMITE

NEW



SMD

SURFACE MOUNT WIREWOUND POWER RESISTORS

Features

- High Pulse Tolerant Design
- Very Low Inductance
- Resistor Pkg. Electrically Isolated from Heat Sink
- 20W Power Rating at 25°C Case Temperature
- Low Thermal Resistance to Heat Sink: $R_{TH} < 6.25^{\circ}\text{C/W}$

Specifications

- Tolerance: 1%, 5%
- Temperature Coefficient: $\pm 90\text{ppm}/^{\circ}\text{C}$ (0.1 to 1 Ω); $\pm 50\text{ppm}/^{\circ}\text{C}$ (1 to 10 Ω); $\pm 20\text{ppm}/^{\circ}\text{C}$ (10 Ω)
- Max. Operating Voltage: 350V
- Dielectric Withstanding: 1000V
- Insulation Resistance: 10G Ω Min.

DIMENSIONS (mm)

Series	Length	Height	Width
RW1SOBA	0.246" (6.25)	0.136" (3.45)	0.136" (3.45)
RW1S5CA	0.394" (10.01)	0.159" (4.04)	0.159" (4.04)
RW2SOCB	0.407" (10.34)	0.222" (5.64)	0.226" (5.74)
RW2RODA	0.455" (11.56)	0.226" (5.74)	0.24" (6.10)
RW3RODB	0.655" (16.64)	0.226" (5.74)	0.273" (6.93)
RW3R5EA	0.811" (20.60)	0.273" (6.93)	0.273" (6.93)

SPECIFICATIONS

Series	Power (W)*	Ohms	Max. Voltage
RW1SOBA	1	0.005 - 1K	50
RW1S5CA	1.5	0.005 - 1K	75
RW2SOCB	2	0.005 - 5K	100
RW2RODA	2	0.005 - 5K	100
RW3RODB	3	0.005 - 13K	200
RW3R5EA	3.5	0.005 - 25K	350

* At 25°C ambient

1 WATT, 50V, REEL QUANTITY: 2000

Type	Ohms	Tolerance (%)	Cut Tape		Tape On Reel	
			Stock No.	Each	Stock No.	Each
RW1SOBAR015JT	0.015	5	13B516	2.04	05J1980	1.36
RW1SOBAR033FT	0.033	1	96C2969	2.59	05J1985	1.68
RW1SOBAR075JT	0.075	5	13B526	2.48	05J1988	1.65
RW1SOBAR10FT	0.01	1	13B513	2.59	05J1977	1.68
RW1SOBAR020FT	0.02	1	96C2967	2.59	05J1981	1.68
RW1SOBAR020JT	0.02	5	13B517	2.04	05J1982	1.36
RW1SOBAR030FT	0.03	1	13B520	2.59	05J1983	1.68

1 WATT, 50V, REEL QUANTITY: 2000

Type	Ohms	Tolerance (%)	Cut Tape		Tape On Reel	
			Stock No.	Each	Stock No.	Each
RW1SOBAR030JT	0.03	5	96C2968	2.04	05J1984	1.36
RW1SOBAR05FT	0.05	1	13B523	2.59	05J1986	1.68
RW1SOBAR100FT	0.1	1	13B527	3.30	05J1989	2.15
RW1SOBAR100JT	0.1	5	13B528	2.48	05J1990	1.65
RW1SOBAR150JT	0.15	5	96C2970	2.48	05J1991	1.65
RW1SOBAR200JT	0.2	5	96C2971	2.48	05J1992	1.65
RW1SOBAR300JT	0.3	5	13B530	2.48	05J1993	1.65

1.5 WATT, 75V, REEL QUANTITY: 1500

RW1S5CAR015JT	0.015	5	16C0365	1.80	05J1997	1.20
RW1S5CAR010JT	0.01	5	16C0364	1.80	05J1996	1.20
RW1S5CAR030JT	0.03	5	13B547	1.80	05J1998	1.20
RW1S5CAR150JT	0.15	5	16C0368	2.38	05J2000	1.59
RW1S5CAR200JT	0.2	5	16C0369	2.38	05J2001	1.59

2 WATT, 200V, REEL QUANTITY: 1000

RW2SOCBR010JT	0.01	5	23C0510	1.82	05J2015	1.19
RW2SOCBR020JT	0.02	5	16C0373	1.23	05J2016	1.19
RW2SOCBR030JT	0.03	5	16C0374	1.82	05J2017	1.19
RW2SOCBR050JT	0.05	5	16C0375	1.23	05J2018	1.19
RW2SOCBR150JT	0.15	5	23C0512	2.51	05J2019	1.64
RW2SOCBR240JT	0.24	5	16C0377	1.70	05J2021	1.64
RW2SOCBR300JT	0.3	5	23C0514	2.51	05J2022	1.64
RW2SOCBR470JT	0.47	5	16C0378	1.70	05J2023	1.64
RW2SOCB1R00JT	1	5	13B586	2.51	05J2025	1.64

2 WATT, 200V, REEL QUANTITY: 1000

RW2RODAR005JT	0.005	5	96C2972	1.90	05J2003	1.24
RW2RODAR015JT	0.015	5	96C2973	1.90	05J2005	1.24
RW2RODAR025JT	0.025	5	96C2974	1.90	05J2007	1.24
RW2RODAR020JT	0.02	5	13B577	1.90	05J2006	1.24
RW2RODAR030JT	0.03	5	96C2975	1.90	05J2008	1.24
RW2RODAR050JT	0.05	5	96C2976	1.90	05J2009	1.41
RW2RODAR100JT	0.1	5	13B579	2.29	05J2011	1.49
RW2RODA1R00JT	1	5	13B581	2.29	05J2013	1.49

3 WATT, 200V, REEL QUANTITY: 1000

RW3RODBR010JT	0.01	5	13B610	2.14	05J2029	1.43
RW3RODBR015JT	0.015	5	96C2979	2.14	05J2030	1.43
RW3RODBR050JT	0.05	5	13B611	2.14	05J2032	1.43

3.5 WATT, 350V, REEL QUANTITY: 1000

RW3R5EAR020JT	0.02	5	16C0383	1.60	05J2036	1.51
RW3R5EAR025JT	0.025	5	96C2981	2.26	05J2037	1.51
RW3R5EAR030JT	0.03	5	13B618	2.26	05J2038	1.51
RW3R5EAR036JT	0.036	5	96C2982	2.26	05J2039	1.51
RW3R5EAR050JT*	0.05	5	16C0384	1.60	05J2040	1.51
RW3R5EAR200JT	0.2	5	16C0386	1.71	05J2042	1.61
RW3R5EAR500JT	0.5	5	16C0387	1.71	05J2043	1.61
RW3R5EA1R00JT	1	5	96C2983	2.42	05J2044	1.61

*Reel Quantity: 750

82954

OHMITE

NEW

TBH25 SERIES THICK FILM RESISTORS

Specifications

- Power Rating: 25W
- Operating Temperature: -55°C to +150°C
- Max. Operating Voltage: 350V
- Tolerance: $\pm 5\%$
- Package: TO-220

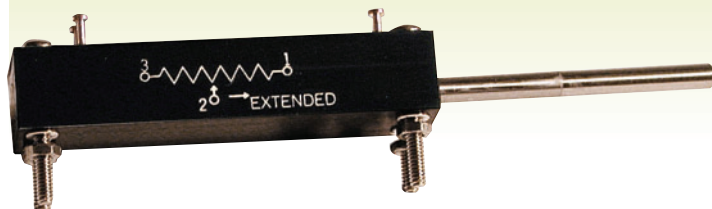
Applications

- Power Supplies
- Industrial Controls
- Automotive Steering
- Pre-load/Damping
- Snubber/Bleeder

CUT TAPE RE-REELED

We automatically re-reel cut tape 18" or longer according to EIA standards — at no extra charge.





LCP12 SERIES GENERAL-PURPOSE LINEAR MOTION POTENTIOMETERS

NEW

Applications

- Test and Lab Equipment
- Industrial Applications
- Medical Equipment (non-life support)

Specifications

- Resistance Tolerance: 20%
- Linearity Tolerance: .5% to 1.5%
- Friction: 1.8 oz.
- Unit Weight: 10 to 35 grams
- Life Expectancy: 20 Million Strokes

Features

- Conductive Plastic Element
- Black Anodized Aluminum Body
- Stainless Steel Shaft
- Gold-Plated Terminals

#4-40 THREADED SHAFT

Type	Resist. (Ω)	Stroke Length	Linearity (%)	Power (W)	Stock No.	1-9	10-24
LCP12A-12-1K	1	1/2"	1.5 %	0.2	83H7216	124.30	95.58
LCP12A-12-5K	5	1/2"	1.5 %	0.2	83H7217	124.30	95.58
LCP12A-25-10K	10	1"	1 %	0.4	83H7218	154.34	118.67
LCP12A-50-5K	5	2"	0.7 %	0.7	83H7220	184.35	141.75
LCP12A-50-10K	10	2"	0.7 %	0.7	83H7219	184.35	141.75
LCP12A-100-10K	10	4"	0.5 %	1.2	83H7215	282.48	217.20

SPRING RETURN SHAFT

LCP12S-12-10K	10	1/2"	1.5 %	0.2	83H7226	167.19	128.56
LCP12S-25-1K	1	1"	1 %	0.4	83H7227	197.20	151.63
LCP12S-25-5K	5	1"	1 %	0.4	83H7229	197.20	151.63
LCP12S-25-10K	10	1"	1 %	0.4	83H7228	197.20	151.63
LCP12S-50-10K	10	2"	0.7 %	0.7	83H7230	227.24	174.73
LCP12S-100-2K	2	4"	0.5 %	1.2	83H7225	332.94	256.00
LCP12S-100-10K	10	4"	0.5 %	1.2	83H7224	332.94	256.00

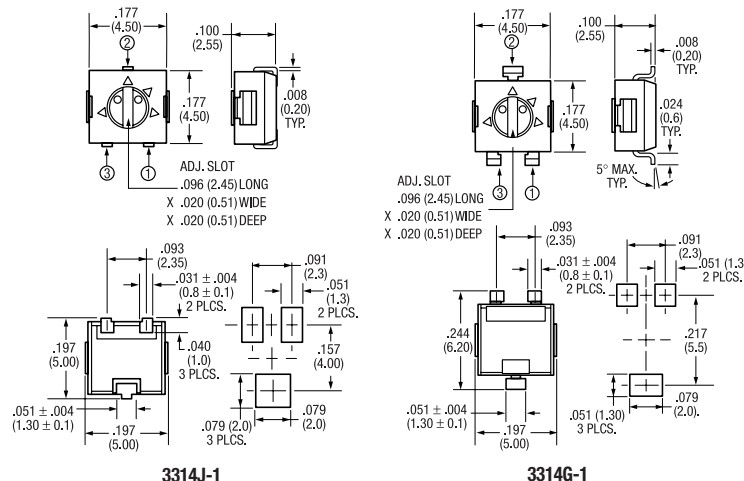
82958

ABOUT ETI Systems

Manufactured to ISO 9001 standards, ETI's precision control products reach all phases of the industrial automation process, from input and communication to manipulation and automated feedback. The company's patented processes include "co-molded" conductive plastic elements, featuring life expectancies of 20 million reciprocating motions or more.

A small sample of ETI's wide range of linear and rotary potentiometers and joystick configurations is shown on this page.

Visit newarkinone.com to view our complete ETI selection.



NEW

3314 SERIES 4mm SQUARE TRIMMING POTENTIOMETERS



Features

- Surface Mount, 4mm Square, Single-Turn, Cermet, Industrial, Sealed Trimming Potentiometer
- Compatible with Surface Mount Manufacturing Processes
- Compatible with Popular Vacuum Pick-And-Place Equipment
- Side-Adjust Style, J-Hook, Gull-Wing and Pinned Configurations Available; visit [Newark InOne online](http://Newark.InOne.com)
- Meets EIA, EIAJ, IPC, VRCI SMD Standard Trimmer Designs

Specifications

- Standard Resistance Range: 10Ω to 2MΩ
- Tolerance: ±20%
- Dielectric Strength: 500VAC
- Solderability: Per MIL-STD-202
- Power Rating @ 70°C: 0.25W, @125°C: 0W
- Temperature Coefficient: ±100ppm/°C
- Operating Temp.: -55°C to +125°C
- Contact Resistance Variation: 3% or 3Ω
- Rotational Life: 100 Cycles
- Torque: 180g-cm Typical
- Stop Strength: 300g-cm Typical
- Reel Qty: 500

3314G SERIES — GULL-WING CONFIGURATION

Type	Ohms	Cut Tape		Tape on Reel	
		Stock No.	1-99	Stock No.	Each
3314G-1-101E	100	04F5974	1.80	09J2485	1.18
3314G-1-102E	1	04F5977	1.80	02J4369	1.18
3314G-1-103E	10	04F5980	1.80	02J4370	1.18
3314G-1-104E	100	04F5984	1.80	09J2486	1.18
3314G-1-200E	20	72C6299	1.80	02J4371	1.18
3314G-1-201E	200	04F5975	1.80	02J4372	1.18
3314G-1-203E	20	04F5981	1.80	02J4373	1.18
3314G-1-500E	50	72C6301	1.80	02J4374	1.18
3314G-1-501E	500	04F5976	1.80	09J2487	1.18
3314G-1-503E	50	04F5983	1.80	02J4375	1.18

3314J SERIES — J-HOOK CONFIGURATION

3314J-1-101E	100	04F5957	1.80	09J2488	1.18
3314J-1-102E	1	77C6324	1.80	02J4376	1.18
3314J-1-103E	10	04F5963	1.80	02J4377	1.18
3314J-1-104E	100	04F5966	1.80	02J4378	1.18
3314J-1-203E	20	04F5964	1.80	02J4379	1.18
3314J-1-500E	50	29C3968	1.80	02J4380	1.18
3314J-1-501E	500	04F5959	1.80	02J4381	1.18
3314J-1-502E	5	04F5962	1.80	02J4382	1.18
3314J-1-503E	50	04F5965	1.85	09J2286	1.18

82959

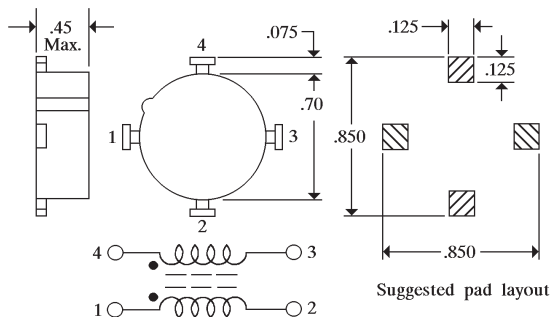


SMD

PM3700 SERIES SURFACE MOUNT COMMON MODE INDUCTORS

PM3700 series inductors suppress conductive EMI emissions. Ideal for switching power supplies and battery chargers. Effective attenuation from 10kHz to 100MHz. Compact package. Encapsulated in a high-strength LCP cup.

NEW



Type	L (min.) mH	I _{cc} (min.) Amps	R _{dc} (max.) Ohms	Frequency Range*	Cut Tape		Tape on Reel	
					Stock No.	Each	Stock No.	Each
PM3700-20	0.5	6.0	0.010	4MHz – 40MHz	95B9190	2.06	07J2741	1.27
PM3700-30	0.75	5.5	0.012	1MHz – 20MHz	95B9193	2.06	07J2742	1.27
PM3700-40	1.0	4.0	0.020	500kHz – 40MHz	95B9194	2.13	07J2743	1.31
PM3700-50	2.0	3.5	0.030	300kHz – 20MHz	95B9195	2.13	07J2744	1.31
PM3700-60	5.0	2.0	0.070	100kHz – 10MHz	95B9197	2.13	07J2745	1.31
PM3700-70	10	1.5	0.150	50kHz – 5MHz	95B9199	2.27	07J2746	1.40
PM3700-80	20	14.0	0.250	25kHz – 4MHz	95B9200	2.27	07J2747	1.40

*20dB attenuation

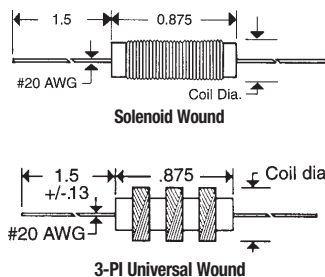
82960



NEW

RF CHOKES WITH AXIAL LEADS

Solenoid or 3-pi universal windings. Impregnated with moisture- and fungus-resistant varnish. Operation up to UHF. Lead length: 1.5".



PHENOLIC WOUND

Type	Inductance L ± 5% (µH)	Resistance Max. (Ω)	Rated Current (mA)	Coil Dia. Max.	Stock No.	1-99	100-249
4612	10	1.5	500	0.27"	59F279	0.98	0.72

IRON CORE SOLENOID WOUND

4622	10	0.11	1,500	0.29"	59F282	1.32	0.98
4624	15	0.17	1,000	0.29"	59F283	1.32	0.98
4626	15	0.34	800	0.29"	59F284	1.32	0.98
4629	55	1.0	500	0.29"	59F286	1.32	0.98
4632	100	3.0	400	0.29"	59F289	1.34	0.99
4651	1000	19	160	0.56"	59F298	3.58	2.65
4672	10000	50	100	0.59"	59F309	3.61	2.67

FERRITE CORE 3-PI UNIVERSAL WOUND

6302	2,500	9	160	0.47"	59F312	2.64	1.95
6304	5,000	14	160	0.53"	59F313	2.97	2.19
6306	10,000	31	100	0.53"	59F314	3.05	2.26
6308	25,000	82	65	0.53"	59F315	3.17	2.35
6310	50,000	127	65	0.53"	59F316	3.17	3.03

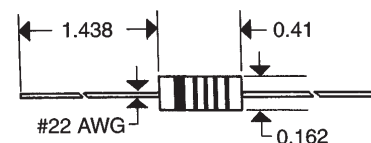
82961



NEW

9250 SERIES MOLDED SHIELDED RF CHOKES

Electromagnetic shielding limits coupling to less than ±3% when two units placed side-by-side. Power rating: 0.25W max. @ 90°C. Manufactured according to Mil-Spec 75089. Not Mil-Spec Qualified.



PHENOLIC CORE

Type	Mil-Spec Reference	Induct. L ± 10% (µH)	Q @ Freq. Min.	D _{cr} (Ohms) Max.	I _{cc} (mA) Max.	Stock No.	1-9	10-24
9250-561	75089-10	0.56	43 @ 25MHz	0.33	490	81F3043	1.91	1.36

IRON CORE

9250-102	75089-1	1.0	44 @ 25MHz	0.07	1070	81F3046	1.99	1.42
9250-472	75089-9	4.7	44 @ 7.9MHz	0.55	380	81F3053	1.99	1.42
9250-103	75089-13	10	50 @ 7.9MHz	1.62	220	81F3057	1.99	1.42

FERRITE CORE

9250-333	75089-5	33	45 @ 2.5MHz	1.37	240	81F3063	2.19	1.57
9250-104	75089-11	100	50 @ 2.5MHz	3.12	160	81F3069	2.39	1.71
9250-474	75089-16	270	55 @ 0.79MHz	5.8	115	81F3077	2.39	1.71
9250-105	75089-23	1,000	60 @ 0.79MHz	17.5	70	81F3081	2.39	1.71
9250-225	75089-27	2,200	45 @ 0.25MHz	33.8	50	81F3085	2.75	1.96
9250-475	75089-31	4,700	45 @ 0.25MHz	81.6	31	81F3089	2.96	2.11
9250-106	75089-35	10k	40 @ 0.25MHz	137	24	81F3093	2.96	2.11
9250-226	75089-39	22k	27 @ 0.079MHz	274	17	81F3097	5.78	4.13
9250-336	75089-41	33k	27 @ 0.079MHz	343	15	90B2453	5.78	4.13
9250-107	75089-47	100k	18 @ 0.079MHz	678	11	81F3105	9.45	6.75

82962

ABOUT J.W. Miller's RF Choke Series

Users of switch-mode power supplies and other electronic devices have a good solution to common problems associated with electromagnetic interference (EMI). As part of its extensive line of RF chokes, J.W. Miller offers a series with high current capacity and wide inductance range, effectively reducing EMI noise while providing high performance and reliability.

The wide selection of inductance ranges in four physical size options should meet virtually any standard requirement. Performance specifications for the series include an inductance range from 1 to 15,000 µH, an operating temperature range of -55 to +105°C, and a dielectric voltage strength of 2500Vrms.

Source: J.W. Miller



MALORY

Sonalert® Products

AUDIBLE ELECTRONIC SIGNALS

Signals produce an audible tone when voltage from 1 to 250V is applied (depending on model). A piezoelectric transducer, operating substantially at resonance in a solid-state oscillator, converts electrical power to sound. Can be powered by many electrical sources, ranging from single-cell battery to industrial power lines. Because of low power requirements, they can be turned on or off with a transistor, SCR, or integrated circuit. No mechanical wear. Salt spray resistant. Operating temperature: -30°C to +65°C. Some units sound at voltages lower than minimum specified. Continuous tone. The **LSC series** combines a flashing LED with continuous audible signal for quick recognition.



PANEL MOUNT

Type	Case Style	Loudness	DC Voltage		Operating Current (mA)	Freq. ± 500Hz	Output @ 2 ft. @ Min./Max. DC Voltage Range (dB)	Stock No.	1-9	10-24
			Min.	Max.						
SC110E	D	Soft	30*	120*	3 to 14	1900	55 to 65	64F274	46.93	44.99
SC628AE	D	Soft	6	28	3 to 14	1900	50 to 65	91B7079	44.17	42.34
SC628E	C	Soft	6	28	3 to 8	1900	55 to 68	64F287	27.11	25.99
SC250F	D	Soft	60*	250*	2 to 6	2900	55 to 65	64F279	44.17	42.34
SC628AF	D	Soft	6*	28*	2 to 6	2900	50 to 65	64F285	41.39	39.68
SC628F	C	Soft	6	28	2 to 4	2900	55 to 70	64F288	23.76	22.77
SC105**	C	Med.	1	5	3 to 16	2900	60 to 75	50F6851	23.74	22.75
SC110D**	D	Med.	30*	120*	6 to 21	1900	60 to 75	64F273	52.75	50.56
SC250D**	D	Med.	60*	250*	5 to 16	1900	60 to 72	64F277	50.13	48.05
SC628AD**	D	Med.	6*	28*	6 to 23	1900	60 to 75	64F283	45.24	43.36
SC628D**	C	Med.	6	28	6 to 23	1900	60 to 75	64F286	27.27	26.14
SC648AD**	D	Med.	10*	48*	4 to 16	1900	60 to 75	64F289	46.10	44.19
SC648D**	C	Med.	10	48	6 to 23	1900	60 to 75	64F290	27.93	26.77
SC110**	D	Med.	30*	120*	6 to 21	2900	68 to 80	64F303	25.13	24.09
SC250**	D	Med.	60*	250*	5 to 18	2900	68 to 80	64F307	45.60	43.71
SC628**	C	Med.	6	28	3 to 18	2900	68 to 80	64F300	12.22	11.71
SC628A**	D	Med.	6*	28*	6 to 23	2900	68 to 80	64F302	21.28	20.40
SC648**	C	Med.	10	48	5 to 22	2900	68 to 80	64F306	24.74	23.71
SC648A**	D	Med.	10*	48*	4 to 16	2900	68 to 80	64F271	41.64	39.91
SC110H**	D	Med.	30*	120*	6 to 21	4500	68 to 80	64F316	53.09	50.89
SC628AH	D	Med.	6*	28*	4 to 16	4500	68 to 80	64F313	45.58	43.70
SC628H**	C	Med.	6	28	6 to 23	4500	68 to 80	64F301	30.18	28.93
SC648H	C	Med.	10	48	4 to 16	4500	68 to 80	64F270	28.95	27.75
SC628MN	C	Loud	6	28	4 to 16	2900	80 to 90	89F276	59.00	56.56
SC110N**	D	Loud	30*	120*	6 to 24	2900	80 to 95	64F276	33.49	32.11
SC307N**	C	Loud	3	7	3 to 9	2900	80 to 90	50F6852	33.31	31.93
SC616N**	C	Loud	6	16	6 to 22	2900	80 to 95	64F282	18.43	17.66
SC628ND**	D	Loud	6	28	3 to 16	2000 (±300Hz)	75 to 95	95C0273	32.58	30.82
SC628NDP	D	Loud	10	28	3 to 16	2000 (±300Hz)	85 to 95	95C0274	35.15	33.25
SC628N**	C	Loud	6	28	6 to 23	2900	80 to 90	93B0557	25.99	24.91
SC628AN**	D	Loud	6*	28*	4 to 30	2900	80 to 95	87F676	27.15	26.03

TWIST TAB MOUNT

SC24	A	Soft	20	30	16 @ 24V	3500	70 @ 24V	64F324	18.18	17.10
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PC BOARD MOUNT

SBM2**	F	Med.	1	5	3 to 16	2900	55 to 68	42F968	33.12	26.55
SBM428**	F	Med.	4	28	3 to 16	2900	64 to 78	42F969	33.12	26.55

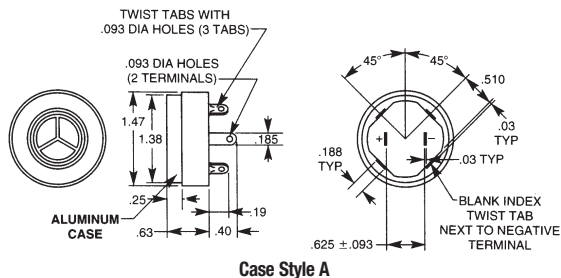
SNAP-IN PANEL MOUNT

SNP2	B	Med.	1	5	3 to 12	2900	55 to 68	81F447	13.99	12.80
SNP428**	B	Med.	4	28	3 to 18	2900	64 to 76	64F378	13.99	12.80

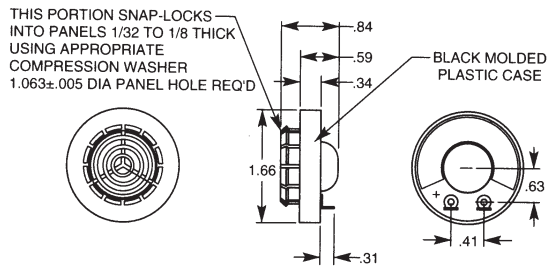
PANEL MOUNT-FLASHING LED ALERT

LSC616N	C	Loud	6	16	40 to 60	2900	80 to 95	98B5334	65.03	61.86
LSC628AN	D	Loud	6*	28*	4 to 48	2900	85 to 95	30C8821	83.66	79.58
LSC110N	D	Loud	30*	120*	5 to 16	2900	88 to 98	30C8819	86.56	82.33
LSC250N	D	Loud	60*	250*	4 to 14	2900	84 to 87	30C8820	86.68	82.45

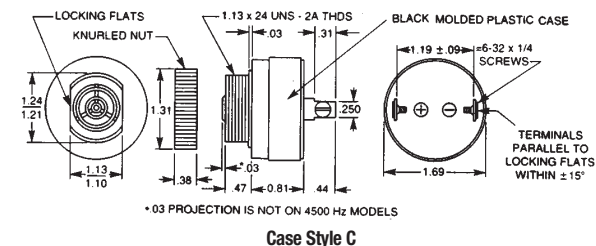
*AC/DC non-polarized, all others DC only. **Denotes UL recognized, Guide UCST2, yellow card S1290.



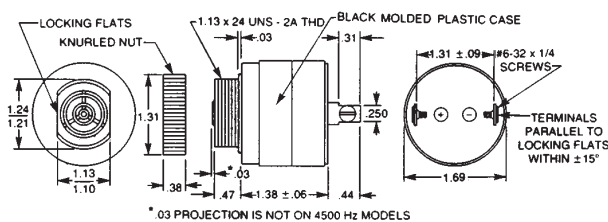
Case Style A



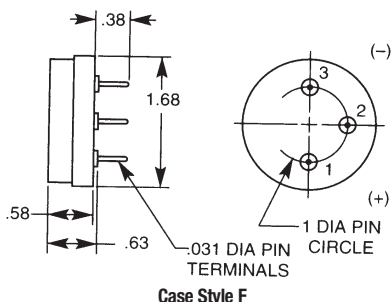
Case Style B



Case Style C



Case Style D



Case Style F



NEW Manufacturer

SURFACE MOUNT LEDs

Full reel and more values available; visit Newark InOne online.

Type	Emitted Color	Lens Color	Wavelength (nm)	V _F Typ. (V)	I _F Max. (mA)	I _v (mcd)	Viewing Angle (°)	Stock No.	1-9	10-99
0603 PACKAGE										
SML-LX0603SRW-TR	Super Red	White Diff.	660	1.7	30	45	140	09J9551	0.15	0.12
SML-LX0603IW-TR	Red	White Diff.	635	2	30	14	160	09J9550	0.17	0.14
SML-LX0603YW-TR	Yellow	White Diff.	585	2.1	30	14	160	09J9552	0.16	0.13
SML-LX0603GW-TR	Green	White Diff.	565	2.2	25	18	160	09J9549	0.14	0.11
SML-LX0603USBW-TR	Ultra Sup Blue	White Diff.	470	3.5	25	20	140	09J9659	3.03	2.48

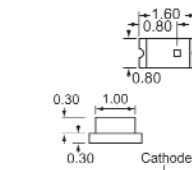
0805 PACKAGE										
SML-LXT0805SRW-TR	Super Red	White Diff.	660	1.8	30	21	140	09J9658	0.17	0.14
SML-LX0805SRC-TR	Sup Red	Clear	660	1.7	25	25	140	09J9652	0.14	0.12
SML-LXT0805IW-TR	Red	White Diff.	635	2	30	11	140	09J9547	0.15	0.12
SML-LXT0805GW-TR	Green	White Diff.	565	2	30	11	140	09J9657	0.14	0.12
SML-LX0805IC-TR	Red	Clear	635	2	30	9	140	09J9650	0.14	0.12
SML-LXT0805YW-TR	Yellow	White Diff.	585	2.1	30	10	140	09J9548	0.15	0.12
SML-LX0805GC-TR	Green	Clear	565	2.2	30	10	140	09J9649	0.14	0.12
SML-LX0805YC-TR	Yellow	Clear	585	2.1	30	9	140	09J9653	0.14	0.12

1206 PACKAGE										
SML-LXL1206SRC-TR	Sup Red	Clear	660	1.7	25	90	20	09J9655	0.17	0.14
SML-LX1206SRC-TR	Super Red	Water Clear	660	1.7	30	25	140	09J9557	0.14	0.12
SML-LX1206SRW-TR	Super Red	White Diff.	660	1.8	30	15	160	09J9558	0.18	0.15
SML-LX1206YC-TR	Yellow	Water Clear	585	2.1	25	6	160	09J9559	0.15	0.12
SML-LXL1206GC-TR	Green	Clear	565	2.1	25	20	20	09J9654	0.20	0.16
SML-LX1206GC-TR	Green	Water Clear	565	2.2	25	10	160	09J9553	0.13	0.11
SML-LX1206GW-TR	Green	White Diff.	565	2.2	25	10	160	09J9554	0.16	0.14
SML-LX1206IC-TR	Red	Water Clear	635	2	25	6	160	09J9555	0.15	0.12
SML-LX1206IW-TR	Red	White Diff.	635	2	25	6	160	09J9556	0.15	0.12

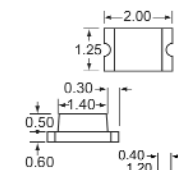
1210 PACKAGE										
SML-LX1210SRRC-TR	Sup. Red/Sup. Red	Water Clear	660	1.7	30	15	160	09J9562	0.66	0.54
SML-LX1210IGC-TR	Red/Green	Water Clear	635/565	2.0/2.2	25	10	160	09J9561	0.28	0.23
SML-LX1210GGC-TR	Green/Green	Water Clear	565/565	2.2	25	10	160	09J9560	0.33	0.27

SOT-23										
SSL-LX151GC-RP-TR	Red/Green	Water Clear	635/565	2.0/2.2	30/25	10	140	09J9610	0.44	0.36
SSL-LX151IC-RP-TR	Red/Red	Water Clear	635	2	30	10	140	09J9611	0.50	0.41
SSL-LX151C-TR	Red	Water Clear	635	2	30	10	140	09J9609	0.30	0.24
SSL-LX151C-RP-TR	Red	Water Clear	635	2	30	10	140	09J9608	0.30	0.24
SML-LX156GC-RP-TR	Green/Green	Water Clear	565	2.2	25	10	140	09J9607	0.50	0.41
SSL-LX151YC-TR	Yellow	Water Clear	585	2.1	30	10	140	09J9613	0.30	0.24
SSL-LX151YC-RP-TR	Yellow	Water Clear	585	2.1	30	10	140	09J9612	0.27	0.23
SSL-LX151GC-TR	Green	Water Clear	565	2.1	25	10	140	09J9606	0.26	0.21
SSL-LX156GC-RP-TR	Green	Water Clear	565	2.2	25	10	140	09J9605	0.27	0.23
SML-LX15SRC-TR	Super Red	Water Clear	660	1.7	30	20	140	09J9569	0.42	0.34
SML-LX15SRC-RP-TR	Super Red	Water Clear	660	1.7	30	20	140	09J9568	0.42	0.34
SML-LX151GC-RP-TR	Red/Green	Water Clear	635/565	2.0/2.2	30/25	10	140	09J9567	0.62	0.51
SML-LX151GC-TR	Red/Green	Clear	635/565	2.0/2.1	30/25	10	140	09J9663	0.52	0.43
SSL-LX151GC-TR	Red/Green	Clear	635/565	2.0/2.1	30/25	10	140	09J9666	0.50	0.41
SML-LX151GC-RP-TR	Yellow/Green	Water Clear	585/565	2.1/2.2	30/25	10	140	09J9578	0.62	0.51
SML-LX151C-TR	Red	Water Clear	635	2	30	10	140	09J9566	0.40	0.32
SML-LX151C-RP-TR	Red	Water Clear	635	2	30	10	140	09J9565	0.40	0.32
SML-LX151YC-TR	Super Yellow	Water Clear	590	2.1	30	60	140	09J9571	0.42	0.35
SML-LX151YC-TR	Yellow	Water Clear	585	2.1	30	10	140	09J9577	0.40	0.32
SML-LX151GC-TR	Green	Water Clear	565	2.2	25	10	140	09J9564	0.40	0.32
SML-LX151YC-RP-TR	Yellow	Water Clear	585	2.1	30	10	140	09J9576	0.40	0.32
SML-LX156C-RP-TR	Green	Water Clear	565	2.2	25	10	140	09J9563	0.39	0.32
SML-LX151GC-TR	Super Ultra Green	Water Clear	574	2.2	25	45	140	09J9570	0.42	0.34
SML-LX151UPGC-TR	Ultra Pure Green	Water Clear	525	3.5	30	45	140	09J9573	2.22	1.82
SML-LX151USBC-TR	Ultra Super Blue	Water Clear	470	3.5	30	120	140	09J9575	2.22	1.82
SML-LX151UPGC-RP-TR	Ultra Pure Green	Water Clear	525	3.5	30	45	140	09J9572	2.22	1.82
SML-LX151USBC-RP-TR	Ultra Super Blue	Water Clear	470	3.5	30	120	140	09J9574	2.22	1.82

T-1 (3mm) RA										
SSF-LXH305ID-TR	Red	Red Diff.	635	2	30	40	60	09J9588	0.78	0.64
SSF-LXH305YD-TR	Yellow	Yellow Diff.	585	2.1	30	30	60	09J9589	0.78	0.64
SSF-LXH305GD-TR	Green	Green Diff.	565	2.2	25	30	60	09J9587	0.78	0.64



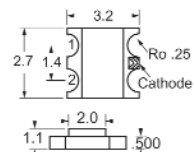
0603 Package



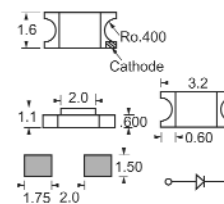
0805 Package



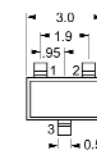
1206 Package



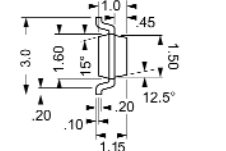
1210 Package



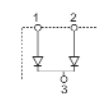
SOT-23



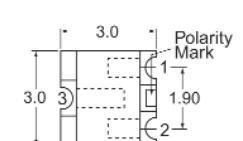
T-1 (3mm) RA



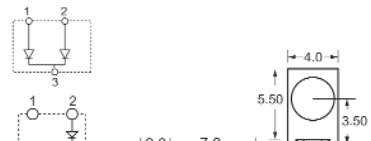
T-1 (3mm) RA



SOT-23

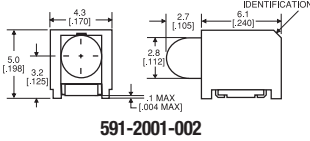


SOT-23 Footprint

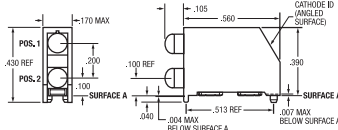


T-1 (3mm) RA

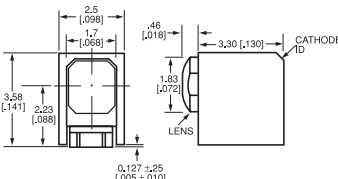
82848



591-2001-002



592-3030-002



595-2101-002

**CIRCUIT BOARD INDICATOR
SURFACE MOUNT LEDs**
SINGLE-LED, SINGLE-COLOR

Type	Color	Lens Style	Typ. VF (V)	Typ. Lum. (mcd)	Stock No.	1-24
591-2101-002	AlGaAs Red	Round	1.8	23.9	26C9518	1.59
595-2101-002	AlGaAs Red	Square	1.7	25	65H7278	1.61
591-2001-002	High-Efficiency Red	Round	2	5	65H7275	1.54
591-2001-102	High-Efficiency Red	Square	2	5	26C9517	1.54
591-2201-002	High-Intensity Green	Round	2.1	9.1	26C9519	1.67
595-2201-002	High-Intensity Green	Square	2.2	8.5	26C9553	1.72
591-2201-102	High-Intensity Green	Square	2.1	9.1	26C9522	1.67
591-2301-002	High-Performance Green	Round	2	4	65H7276	1.54
595-2301-002	High-Performance Green	Square	2.1	11	65H7279	1.61
591-2401-002	High-Performance Yellow	Round	2	5	56J8833	1.54
595-2401-002	High-Performance Yellow	Square	2.2	9	65H7280	1.59
591-2701-002	AlInGaP Yellow	Round	2	33.6	26C9534	1.67
591-2701-102	AlInGaP Yellow	Square	2	33.6	26C9537	1.67
595-2701-002	AlInGaP Yellow	Square	2.02	41	26C9557	1.71
591-2501-102	Orange	Square	...	...	26C9526	0.95
595-2501-002	Orange	Square	2.2	9	03H8072	1.59
591-2601-002	Blue	Round	3.5	6	26C9528	3.18
591-2601-102	Blue	Square	3.5	6	26C9531	2.97
591-2801-002	White	Round	3.5	19.2	13J0296	3.38
591-2801-102	White	Square	3.5	19.23	13J0298	3.38

SINGLE-LED, DUAL-COLOR

591-3001-002	Super Red/Green	Round	2	6.5/8	65H7277	2.86
591-3101-002	Yellow/Green	Round	2	6.5/8	26C9541	2.83
591-3101-102	Yellow/Green	Square	2.6	16	26C9543	2.83
591-3201-002	Super Red/Yellow	Round	2	6.5	26C9545	2.83
591-3201-102	Super Red/Yellow	Square	2	6.5	26C9547	2.83

DUAL-LED, SINGLE-COLOR

592-2020-002	Red	Round	2	5	56J8834	3.09
592-2023-002	Red/Green	Round	2	5/4	03H8050	3.09
592-2121-002	AlGaAs Red	Round	1.8	23.9	13J0305	3.09
592-2124-002	AlGaAs Red/Yellow	Round	...	...	03H8052	3.09
592-2222-002	Green	Round	2.1	9.1	13J0306	5.57
592-2320-002	Green/Red	Round	2	4/5	13J0307	3.09
592-2323-002	Green	Round	2	4	56J8835	3.09
592-2324-002	Green/Yellow	Round	2	4/5	56J8836	3.09
592-2326-002	Green/Blue	Round	2/3.5	4/6	13J0308	4.52
592-2420-002	Yellow/Red	Round	2	5	13J0309	3.09
592-2423-002	Yellow/Green	Round	2	5/4	56J8837	3.09
592-2424-002	Yellow	Round	2	5	56J8838	3.09
592-2727-002	AlInGaP Yellow	Round	2	33.6	13J0312	3.43
592-2525-002	Orange	Round	...	...	13J0311	3.09
592-2626-002	Blue	Round	3.5	6	56J8839	6.06
592-2628-002	Blue/White	Round	3.5	6/19	03H8060	6.06

DUAL-LED, DUAL-COLOR

592-3030-002	Red/Green	Round	2	6.5/8	56J8840	4.30
592-3031-002	Red/Green-Yellow/Green	Round	2	6.5/8	03H8065	4.30
592-3232-002	Red/Yellow	Round	2	6.5	03H8068	4.30
592-3131-002	Yellow/Green	Round	2	6.5/8	56J8841	4.30

TRIPLE-COLOR

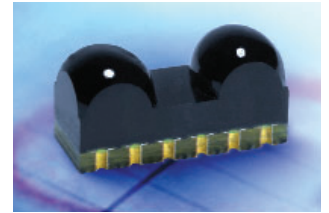
591-3503-002	Red/Blue/Green	Round	2/3.8/2	10/5/16	26C9549	5.70
591-3503-102	Red/Blue/Green	Square	2.6	10	13J0301	5.70
592-3535-002	Red/Green/Blue	Round	2/3.8/2	10/5/16	03H8070	6.86

Available as Tape on Reel

82971



NEW



INFRARED TRANSCEIVERS

SIR 0.6 KBIT/S - 115 KBIT/S

Type	Dim. (mm) (H x W x L)	Trans. Dist.* (m)	Oper. (V)+	Logic (V)	Description	Stock No.	Each
TFDU4100-TR3	9.7 x 4.7 x 4.0	0 - 3.0	2.7 - 5.5	V _{log} = V _{cc}	Low Power	95B4829	3.15
TFDU4202-TR3	7.1 x 4.5 x 2.7	0 - 1.0	2.4 - 5.5	V _{log} = V _{cc}	Low Power; Split Power Supply	22H1101	4.44
TFDU4203-TR1	7.1 x 4.5 x 2.7	0 - 1.0	2.4 - 5.5	V _{log} = V _{cc}	Low Power; Shutdown Pin	22H1102	4.44
TFDU4300-TR1	2.5 x 2.9 x 8.5	0 - 0.7	2.4 - 5.5	V _{log} ≥ 1.5V	Low Profile, Low Power, Shutdown Pin	07J8942	3.52
TFBS4711-TR1	1.9 x 3.0 x 6.0	0 - 0.3	2.4 - 5.5	V _{log} = V _{cc}	Low Power, Lowest Height	07J8939	3.52

MIR 9.6 KBIT/S — 1 MBIT/S

TFDU5107-TR3	9.7 x 4.7 x 4.0	0 - 1.0	2.4 - 5	V _{log} ≥ 1.5V	V _{logic} Adjustable to as Low as 1.5V; Low Power	22H1104	4.44
TFDU6102-TR3	4.0 x 4.7 x 9.7	0 - 1.0	2.7 - 5.5	V _{log} = V _{cc}	Low Power, Shutdown Pin	07J8945	5.55
TFBS6614-TR3	2.7 x 3.33 x 7.98	0 - 1.0	2.7 - 5.5	V _{log} ≥ 1.5V	Low Profile, Shutdown Pin	09J7264	5.74

*Transmit distance; +Operating voltage

82866

HIGH-SPEED OPTOCOUPPLERS



ANALOG HIGH-SPEED

Type	Data Rate Mbd	V _{ISO} V _{RMS}	C _{TRmin} @ I _{F(test)} %	C _{TRmax} @ I _{F(test)} %	I _F (test) mA	C _{MRR} typical V/μs	Stock No.	1-99
6N135	1	5300	7	...	16	1000	22H6190	1.84
6N136	1	5300	19	...	16	1000	22H6191	1.89
SFH6345	1	5300	15	...	16	30000	21H7792	4.08
6N138	0.1	5300	300	...	1.6	1000	22H6192	2.04
6N139	0.1	5300	500	...	1.6	1000	22H6193	2.25
SFH6325	1	5300	5	...	16	1000	21H7789	5.00
SFH6326	1	5300	19	...	16	1000	21H7790	5.00
SFH6315T	1	3000	7	50	16	1000	21H7785	3.88
SFH6316T	1	3000	19	50	16	1000	21H7786	3.98
SFH6343T	1	3000	15	...	16	30000	21H7791	5.51
SFH6318T	0.1	3000	300	2600	1.6	1000	21H7787	3.88
SFH6319T	0.1	3000	500	2600	1.6	1000	21H7788	3.98
SFH636	1	5300	19	...	16	10000	21H7795	4.34
SFH6135	1	5300	7	...	16	1000	21H7705	4.59
SFH6136	1	5300	19	...	16	1000	21H7706	5.00
SFH6138	0.1	5300	300	...	1.6	500	21H7708	4.24
SFH6139	0.1	5300	500	...	1.6	500	21H7709	4.90

DIGITAL HIGH-SPEED

Type	Data Rate Mbd	V _{ISO} V _{RMS}	t _{RISE} , t _{FALL} ns	t _{PLH} , t _{PLL} typ. ns	V _{CC} V	C _{MRR} min. V/μs	Stock No.	1-99
SFH6720T	5	5300	40, 10	115, 90	5	1000	21H7809	4.80
SFH6721T	5	5300	40, 10	115, 90	5	2500	21H7810	4.80
SFH6700	5	5300	40, 10	115, 90	5	1000	21H7802	4.85
SFH6701	5	5300	40, 10	115, 90	5	1000	21H7803	4.85
SFH6702	5	5300	40, 10	115, 90	5	1000	21H7804	4.85
SFH6705	5	5300	40, 10	105, 90	5	1000	21H7805	5.46
SFH6711	5	5300	40, 10	115, 90	5	2500	21H7806	5.46
SFH6712	5	5300	40, 10	115, 90	5	2500	21H7807	5.46
SFH6719	5	5300	40, 10	115, 90	5	2500	21H7808	5.46
SFH6731	5	5300	40, 10	115, 90	5	1000	21H7811	10.71
SFH6732	5	5300	40, 10	115, 90	5	5000	21H7812	10.71

82969



NEW

PLUG AND PLAY PROTOTYPING KITS

To aid in the prototyping process these kits contain all of the components that you will need to light up the display. The kits generally include: the display, LCD controller circuitry, power supply, CCFL DC-AC inverter, and cabling. Also included is full documentation, including component specifications, system diagram and cable maps.



Type	Diag. Size	Pixels (W x H)	Driving Voltage (V)	Input Signal	Stock No.	Each
AND-TFT-25PA-LED-KIT	2.5"	480 x 234	12	TFT Analog RGB, NTSC, PAL	09J5302	198.53
AND-TFT-35PA-LED-KIT	3.5"	480 x 234	12	TFT Analog RGB, NTSC, PAL	09J5304	227.58
ANDPSI04C380K-HB-KIT	4"	640 x 480	3.3	Digital 6-bit interface	09J5308	963.56
AND-TFT-5PA-KIT	5"	320 x 234	12	NTSC Composite, RGB, VGA	09J5305	251.79
AND64C402V-HB-KIT	6.4"	640 x 480	5	Digital 6-bit interface	09J5319	816.69
ANDPSI08C351-HB-KIT	8.4"	800 x 600	3.3	Digital 6-bit interface	09J5309	1087.84
ANDPSI104EA5S-HB-KIT	10.4"	1024 x 768	3.3	Digital 6/8-bit interface	09J5311	1173.38
ANDPSI121GA0S-HB-KIT	12.1"	1024 x 768	3.3	Digital 6-bit interface	09J5313	1263.77

82873



HIGH-INTENSITY WHITE LEDs - SMT, T-1, AND T-1 3/4

White LEDs come in 3 standard sizes: T-1, T-1 3/4 and SMT (top LED configuration). These LED lamps all have high luminous intensity ratings with a current draw of 20mA. All devices are ESD sensitive and must be handled with protective shielding. The SMT LED units are packaged 2000 pieces per reel.

T-1

Type	Emitted Color	Typical mcd	Wavelength (nm)	Forward Voltage Typ. (V)	Stock No.	1-9	10-99
CMD204UJC	White	1000	475	3.7	48F3587	6.84	5.96

T-1-3/4

CMD333UJC	White	2300	475	3.75	48F3588	4.75	4.14
CMD333UWW	White	800	...	3.75	34C9276	4.65	4.05

SMT

CMD67-21UJC/TR8	White	170	470	3.70	08C4638	4.89	4.26
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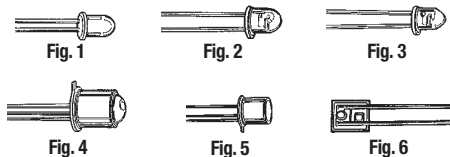
82875



NEW

PHOTOSENSORS

All are phototransistors. All types OP505 are narrow reception.

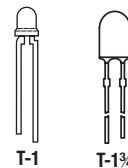


Type	Fig.	Beam Angle	I _{C(ON)} Min. (mA)	V _{CE} (V)	E _e (mW/cm ²)	Stock No.	1-99	100-249	250-499
OP505D	1	18°	0.55	5.0	0.5	08F3009	0.58	0.47	0.44
OP505C	1	18°	1.10	5.0	0.5	08F3008	0.60	0.49	0.45
OP505A	1	18°	4.30	5.0	0.5	08F3006	0.60	0.49	0.45
OP593A	2	130°	3.0	5.0	1.7	08F3024	0.71	0.58	0.54
OP598A	3	25°	7.5	5.0	1.7	08F3026	0.71	0.58	0.54
OP803SL	4	25°	4.0	5.0	5.0	08F3037	2.16	1.78	1.63
OP804SL	4	25°	7.0	5.0	5.0	08F3040	2.16	1.78	1.63
OP805SL	4	25°	15.0	5.0	5.0	08F3042	2.16	1.78	1.63
OP802WSL	5	25°	2.5	5.0	5.0	08F3035	1.90	1.56	1.43
OP598C	3	25	2.5	5.0	1.7	08F3027	0.71	0.58	0.54
OP830SL	4	25	15	5.0	0.5	08F3043	2.16	1.78	1.63
OP830WSL	5	75	4	5.0	0.5	08F3045	2.31	1.90	1.75
OP506A	1	18	4.3	5.0	0.5	08F3011	0.75	0.62	0.57
OP550A	6	60	2.55	5.0	1.0	08F3016	0.71	0.58	0.54
OP802SL	4	25	2	5.0	5.0	08F3033	2.16	1.78	1.63

82876

HIGH INTENSITY LED LAMPS

Lenses are either clear (C) or diffused (D).



NEW

T-1 (3mm)

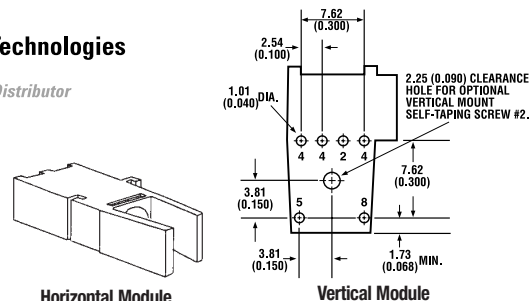
Type	Color	Lens	Luminous Intensity Iv (mcd)	Viewing Angle	Stock No.	Each
HLMF-K101	AlGaAs Red	Diffused	45*	60°	06F6441	0.51
HLMF-K105	AlGaAs Red	Clear	65*	45°	06F6442	0.46
HLMF-K150	AlGaAs Red	Diffused	2‡	60°	06F6443	0.51
HLMF-K155	AlGaAs Red	Clear	3‡	60°	06F6446	0.62
HLMF-1301	GaP HER	Diffused	3.4 (min)**	60°	06F6558	0.36
HLMF-1321	GaP HER	Clear	30**	45°	06F6568	0.31
HLMF-1401	GaP Yellow	Diffused	2.2 (min)**	60°	06F6576	0.36
HLMF-1420	GaP Yellow	Clear	15**	45°	06F6582	0.51
HLMF-1421	GaP Yellow	Clear	15**	45°	06F6583	0.31
HLMF-1503	GaP Green	Diffused	1 (min)**	60°	06F6589	0.36
HLMF-1520	GaP Green	Clear	22**	45°	06F6594	0.51
HLMF-1521	GaP Green	Clear	22**	45°	06F6595	0.36
HLMF-1340	GaP HER	Clear	55*	45°	06F6569	0.46
HLMF-1440	GaP Yellow	Clear	45*	45°	06F6584	0.46
HLMF-1540	GaP Green	Clear	45*	45°	06F6601	0.46
HLMF-1700	GaP HER	Diffused	2.1†	50°	06F6620	0.51
HLMF-1719	GaP Yellow	Diffused	2.1†	50°	06F6624	0.51
HLMF-1790	GaP Green	Diffused	2.3†	50°	06F6629	0.51

* If @ 20mA ** If @ 10mA † If @ 2mA ‡ If @ 1mA.

82945



NEW



The most cost effective family of fiber-optics from Hewlett-Packard consists of discrete transmitters and receivers based on 660nm technology. Optimized for 1mm plastic fiber and 200µm HCS™ fiber.

TRANSMITTERS

Type	Data Rate (MbD)	Distance (m) (@ 25°C)	Wavelength (nm)	Fiber Type	Stock No.	Each
HFBR-1521	5	30	660	Plastic	06F6050	10.74
HFBR-1522	1	55	660	Plastic	06F6051	10.74
HFBR-1532	4	55	660	Plastic	06F6058	10.74
HFBR-1523	40	120	660	Plastic	06F6052	10.74
HFBR-1533	4	120	660	Plastic	06F6059	10.74
HFBR-1524	1	20	660	Plastic	06F6053	10.74
HFBR-1527	125 32	50 1000	650 650	Plastic HCS™	06F6055	12.35
HFBR-1528	10 10	50 500	650 650	Plastic HCS™	06F6056	12.35
HFBR-1531	5	30	660	Plastic	06F6057	10.74

RECEIVERS

HFBR-2521	5	30	660	Plastic	06F6091	10.74
HFBR-2522	1	55	660	Plastic	06F6092	10.74
HFBR-2532	115	55	660	Plastic	06F6098	10.74
HFBR-2523	40	120	660	Plastic	06F6093	10.74
HFBR-2524	1	20	660	Plastic	06F6094	10.74
HFBR-2526	125 32	50 1000	650 650	Plastic HCS™	06F6095	16.11
HFBR-2528	10 10	50 500	650 650	Plastic HCS™	06F6096	19.33
HFBR-2531	5	30	660	Plastic	06F6097	10.74

*kBD

82944



Technically SPEAKING

In this “need-it-now world”, design engineers are juggling more projects and wearing more hats to meet challenging time-to-market demands and bottom line pressures. The need for fast access to accurate technical information has grown in kind. For that, engineers can count not only on the resources of search engines and top electronics manufacturers, but on top electronics distributors as well.

Like any other customer request, technical support is a test of a distributor’s abilities, and one that it should pass handily. Successfully addressing application questions and identifying parts for any category of products—from semiconductors to test equipment—can be pivotal to the on-time completion of a project, and today’s top component distributors understand this. These distributors offer a range of capabilities to make specifying, procuring and applying electronic components from a broad range of manufacturers, faster and easier.

A distributor’s website, for example, should provide access to everything that is needed to make a purchasing decision. A broad product selection searchable by its attributes and parameters – allows designers to use technical product specification (such as voltage or package type) in their searches. Other key search capabilities include:

- Matching products based on partial or complete stock/part numbers, attributes, manufacturer names, descriptions
- Offering a simple one box entry for criteria; the search engine itself uses internal logic to complete the search
- Providing side-by-side comparisons of products
- Continually sorting results by price, availability, attributes, part numbers, description or filter by manufacturer
- Providing relevant ranked order of products in results
- Providing regularly updated inventory and pricing

Within the search result, the designer should also have access to product datasheets, links to manufacturers’ websites, and Live Chat to the distributor’s technical support team.

But as popular as live online technical support has become, it’s just one channel. The more options provided for service, the better. When accessible via the web, phone and email, one-to-one technical support maximizes a designer’s ability to advance through a project with speed and accuracy.

Questions that arise during a project are as varied as the projects themselves. The multiplicity of possible questions should equal, not exceed, a technical team’s ability to either answer them directly, or to assist the customer in quickly finding the answer. Whether an engineer is looking for help selecting a specific component or a number of modules for a control system, the technical support team should have the depth of knowledge to accurately respond. The technical team may also suggest alternate stock components that fit the designer’s specifications. Stock components offer speedy lead times and lower costs.



The top component distributors can supply designers with a full range of timesaving support options.

It is critical that a distributor's technical support team be comprised of experienced engineers. Similarly, the team should be familiar with the "latest and greatest" components and related technologies, able to advise on areas such as the unique applications enabled by the newest microcontroller, or the wisdom of selecting a capacitor with a higher Q value for its size.

With the need for ongoing general and specialized knowledge, a distributor's suppliers are the best trainers. Suppliers generally conduct training via online and on-site sessions. This fosters a closer distributor/manufacturer relationship, sharing in the technical support function, and better serving their mutual design engineer customers.

With the high level of technical support that is now available, engineers can comfortably look to distributors as more than mere suppliers of products, but as true partners that can assist them in meeting – and exceeding – the new professional challenges they face every day on the job.

Technical support at Newark InOne

The Newark InOne website is information-rich and easy to navigate. It offers you



everything you need to make a buying decision—including access to our knowledgeable technical support team. These trained engineers offer support for every product category—from

semiconductors to test equipment. You can ask them to identify parts, answer application questions, find cross-references and more.

www.newarkinone.com

- Datasheets
- Links to 425+ manufacturers' websites
- Cross-references
- Current information on RoHS
- Live chat with technical team

M-F, 7am to 7pm

- eMail request form for technical support

1.800.463.9275

M-F, 7AM TO 7PM CST

- Personal assistance from our knowledgeable sales and technical teams



NEW

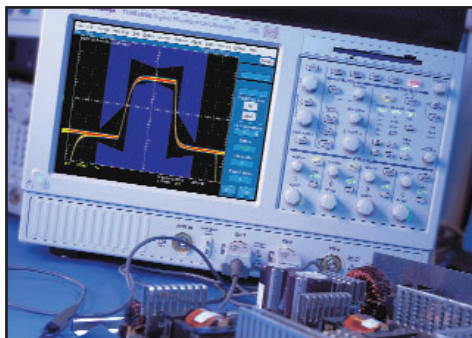
TDS5000B SERIES DIGITAL PHOSPHOR OSCILLOSCOPES

Applications:

- Digital design and debug
- Mask testing for telecomm/datacomm/video standards

Features and Benefits:

- 1GHz, 500MHz, 350MHz bandwidths
- 2 and 4 channels
- 5GS/s sample rate
- 100,000 wfms. max. waveform capture speed
- MyScope™ custom control window
- Up to 16Ms record length (with extra memory)
- Suite of advance triggers
- Right mouse click menus
- OpenChoice™ platform with Windows® 2000
- 10.4" bright display
- CD-RW drive, e-mail on event
- Interoperability with Tektronix logic analyzers



Type TDS5000B series offers the industry's first easily customizable oscilloscope user interface. The new MyScope control feature allows the building of a control window with only the controls, features, and capability needed, effectively creating a personalized "toolbox" of features. An unlimited number of control windows can be made enabling anyone using the oscilloscope, in a shared environment, to have a unique control window. **Type TDS5000B series** also introduces a comprehensive suite of right mouse click menus for exceptional efficiency allowing the user to change parameters, trigger readouts, and reference levels. Virtually all objects on the oscilloscope display have right click menus associated with them. **Type TDS5000B series** delivers up to 1GHz bandwidth, 5GS/s real-time same rate, 16M record length, and a suite of advanced triggers enabling you to capture even the most demanding signals. All models include: (1) P5050 500MHz probe per channel, accessory pouch, front cover, mouse, quick-start manuals, **TDS5000B series** product software CD-ROMS, GPIB programmers reference, 30-day evaluation copies of MATLAB, Labview, NIST Traceability calibration certificate and power cord. **Type TDS5000B:18 series** oscilloscopes include TouchScreen interface.

Type	Description	Stock No.	Each
TDS5104B	1GHz 4-Channel DPO	92H6344	16500.00
TDS104B:18	1GHz 4-Channel DPO w/TouchScreen	88H3688	16950.00
TDS5054B	500MHz 4-Channel DPO	92H6342	12900.00
TDS5054B:18	500MHz 4-Channel DPO w/TouchScreen	92H6343	12950.00
TDS5052B	500MHz 2-Channel DPO	92H6340	10200.00
TDS5052B:18	500MHz 2-Channel DPO w/TouchScreen	92H6341	10350.00
TDS5034B	350MHz 4-Channel DPO	92H6338	9600.00
TDS5034B:18	350MHz 4-Channel DPO w/TouchScreen	92H6339	9750.00
TDS5032B	350MHz 2-Channel DPO	92H6336	7500.00
TDS5032B:18	350MHz 2-Channel DPO w/TouchScreen	92H6337	7750.00

82712



NEW

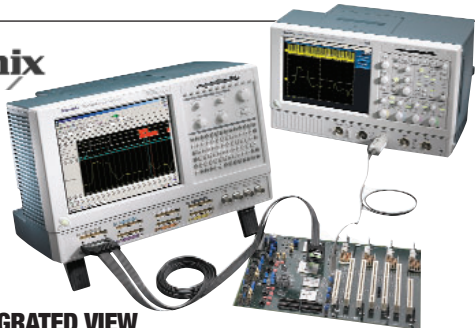
iView™ INTEGRATED VIEW

The iView™ seamlessly integrates and automatically time-correlates data from the logic analyzer and oscilloscope, so you can transfer analog waveforms from the oscilloscope to the logic analyzer display with the click of a mouse. View time-correlated analog and digital signals side-by-side and pinpoint the source of elusive glitches and other problems in moments.

The iView™ package, available for every TLA5000 Series logic analyzer, includes TLA application software and an interconnect cable to integrate the logic analyzer with more than 40 Tektronix oscilloscopes. Recommended oscilloscopes include types TDS5000B and TDS3000B series DPOs.

Type	Description	Stock No.	Each
012161401	iView™ TLA Software and Cable	61H3361	1805.00

82670



TDS5000B Series Oscilloscopes Quickly & Easily Uncover Circuit Problems

Complicated problems can have simple solutions. The TDS5000B series uncovers hard-to-pinpoint problems with just a few clicks. **For example:**

- ◆ Press the **FastAcq/DPO** feature to quickly capture glitches and waveform anomalies.
- ◆ Easily locate high-speed glitches in slow signals by right clicking on the Acquisition Mode readout, located below the menu bar, and selecting **Peak Detect**.
- ◆ To find low-level variations in slow signals, right click on the Acquisition Mode readout and select **HiRes**. The **HiRes Acquisition Mode** extends vertical resolution and filters noise from low-frequency signals.
- ◆ Pinpoint problems like pulses in a pulse train that do not cross a desired logic level, or rise or fall too slowly, using **Runt and Transition** triggers. Triggering will occur directly on the faults that are causing problems. Select the trigger menu button, pull down to **Runt or Transition** trigger, and complete the set up details.

For more efficient troubleshooting and capturing of waveform events, TDS5000B Series scopes have the widest selection of **advanced triggers** among mid-range oscilloscopes. Advanced triggering is easy to use. Just right-click on the trigger readout to select new trigger parameters from a simplified trigger menu.

Source: Tektronix



BREAKTHROUGH REAL-TIME DIGITAL ANALYSIS TLA5000 SERIES LOGIC ANALYZERS

Applications:

- Timing and State Analysis
- Single-Processor/Business Analysis
- Real-Time Instruction Trace Analysis
- Protocol Analysis
- Source Code Debug
- Performance Analysis
- Digital Signal Quality Analysis



The affordable TLA5000 series makes high-speed timing resolution, fast state acquisition and sophisticated triggering available to all digital designers. TLA5000 series is ideal for state and timing analysis. An intuitive user interface, set-up wizards, familiar Windows®-based desktop and OpenChoice™ networking and analysis features make the TLA5000 series logic analyzers easy to use and easy to network into the design environment.

Consisting of four models ranging from 34 to 136 channels, the TLA5000 series delivers the same timing acquisition performance and timing resolution of the Tektronix flagship TLA700 series logic analyzers. The TLA5000 series features 500ps/32Mb deep memory timing with simultaneous 125ps MagniVu™ high resolution on each channel giving you the confidence to measure digital signal timing on fast signals.

Type	Description	Stock No.	Each
TLA5201	34-Channel, 2GHz Deep Memory	80H9138	9430.00
TLA5202	68-Channel, 2GHz Deep Memory	78H0306	11580.00
TLA5203	102-Channel, 2GHz Deep Memory	81H1139	13840.00
TLA5204	136-Channel, 2GHz Deep Memory	81H1140	16090.00

PROBES

Type	Description	Stock No.	Each
P6417	17-Channel Probe	93B4000	950.00
P6418	17-Channel Probe	23C8943	650.00
P6434	34-Channel Probe	23C6209	1080.00

82677