

# 10 WATT AC-DC CONVERTER

**BJS-FWA Series  
DUAL CHANNEL**

Specifications<AC/DC>	Model			
<b>BJS**FWA-U 10WATTS/2OUTPUTS</b>	BJS22FWA-U	BJS23FWA-U	BJS24FWA-U	BJS24FWA-B-U
<b>Input Characteristic</b>				
Input Voltage	AC100-115V			
Input Current	0.3A			
Input Range	AC85-132V			
Input Frequency	50/60Hz			
Input Frequency Range	47-440Hz			
Phase	Single			
Inrush Current *1	20A(maximum) at AC100V			
Efficiency [%] (typical) *2	77	78	73	74

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<b>Output</b>								
Output Voltage [V]	12	12	15	15	5	12	12	5
Output Current [A]	0.6	0.3	0.4	0.3	1.2	0.3	0.7	0.3
Voltage Adjust Range	not available							
Voltage Tolerance [mVp-p](typical)	+/-0.12	11.28-11/48	+/-0.15	14.1-15.6	+/-0.1	11.28-12.48	+/-0.12	4.7-5.2
Ripple and Noise [mVp-p](maximum) *3	220	220	250	250	150	220	220	150
<b>Regulation</b>								
a.Statistic Line Regulation [mV](maximum)	96		120		40		96	
b.Statistic Load Regulation [mV](maximum)	108		135		45		108	
c.Temperature Coefficient *4	0.03%/°C							
d.Drift[mV](maximum) *5	75		90		40		75	
e.Dynamic Load Regulation [mV](typical) *6	+/-360		+/-450		+/-150		+/-360	
f.Recovery Time *6	20mS(typical)							
Rise up time	200mS(maximum) at 25°Cand rated input/output							
Hold up time	20mS(typical) at 25°Cand rated input/output							
<b>Functions</b>								
Overcurrent Protection of Rated Output Current[A]	≥10%	V1=Current Limiting with automatic recovery						
Overvoltage Protection of Rated Output Voltage[V]	≥15%	zener diode clamping						
Remote Sense	not available							
Remote On/Off	not available							
Power Fail Detection	not available							
Parallel/series Operation	not available							
<b>Environmental</b>								
Operating Temperature	-10 to +71°C/-10 to 50°Cat full load condition)							
Operating Humidity	20 to 90%RH(non-condensing)							
Storage Temperature	-20 to +85°C							
Storage Humidity	10 to 85%RH(non-condensing)							
Withstanding Voltage	Primary-Secondary AC1,500V for 1minute							
	Primary-Frame Ground AC1,500V for 1minute							
	Secondary-Frame Ground AC500V for 1minute							
Isolation Resistance	Primary-Secondary-Frame Ground 50MΩ(minimum) by DC500V insulation tester							
Vibration	5-10Hz:10mm double amplitude,10-55Hz:19.6m/s <sup>2</sup> ,20minutes' period for 60minutes each along X,Y,Z axes(non-operating)							
Shock	196m/s <sup>2</sup>							
Cooling	Convection							
Leakage Current	55uA(typical) at 25°C50Hz and AC100V input							
Line Conducted Noise	Built to meet FCC Part15-B Class B							
	Built to meet VCCI Class B							
Safety	UL: UL1950							
	C-UL: CSA C22.2 No.950							
Weight (typical)	35g							
MTBF [H]	1,200,000							
Switching Frequency[kHz](typical)	110kHz at rated input/output							
	90 to 600kHz at input voltage of AC85 to 132V with a load of 0 to 100%							

Conditions:

\*1at cold start

\*2 measured by a bayonet probe at the end of a pair of 5cm long wires terminated with a 100uF electrolytic capacitor and 0.1uF film capacitor in parallel at a 0 to 100MHz bandwidth

\*3 when output current changed from 0mA to rated output current

\*4 at -10 to +40°C

\*5 for 7hour period after 1hour warm-up at 25°Cand rated input/output

\*6 when output current changed from 25% to 75% of rated output current rapidly at rated input