

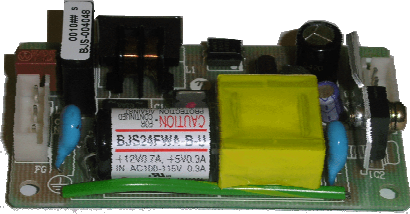


ETA-USA

HIGH QUALITY SWITCHING POWER SUPPLIES

AC/DC SWITCHING POWER SUPPLY
AC INPUT 85~132V
DUAL CHANNEL OUTPUT
10 WATTS

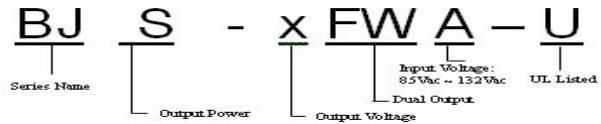
BJS-FWA-U SERIES



DIMENSION: 42Wx70Lx16H [1.654Wx2.756Lx0.6299H]

General Description

BJ"-Series AC/DC Switching power supplies low cost and module-type was developed to meet the broad needs by making the dimensions amazingly small. The dimension of this series are about 40 % (bjs 10W) and 33\$ (BJB 50 W) respectively smaller than those of the current products of our company.



Options

- Wire Harness (40 cm)

Application

Broad needs

Features

1. Ultra small size
2. Advanced conversion technology, C&K converter adopted (BJB 50W)
3. High efficiency, ex. BJB05SA 85%
4. Low cost
5. Versatile output arrangement (Model 10 type, BJB)
6. **BJS-FWA: Isolated type**
7. EMI designed to FCC part 15-B Class-B, VCCI Class-B
8. Safety: BJS: UL1950, C-UL(CSA950)
BJB: UL60950, C-UL(CSA60950)

Input Characteristics	Unit	Models			
		BJS22FWA-U	BJS23FWA-U	BJS24FWA-U	BJS24FWA-B-U
Input Voltage	Vac	AC100-115V			
Input Voltage Range	Vdc	AC85-132V (DC110-175V)			
Input Current	A	0.3A			
Input Frequency	Hz	50/60Hz			
Input Frequency Range	Hz	47-440Hz			
Inrush Current *1	A	20A (typical) at AC100V			
Phase		Single			
Efficiency (typical) *2	%	77	78	73	74

Output Characteristics	Unit	Models							
		BJS22FWA-U		BJS23FWA-U		BJS24FWA-U		BJS24FWA-B-U	
Output Voltage	Vdc	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	V	Not Available							
Voltage Tolerance Range typ.	mVp-p	±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(max.) *3	mVp-p	220	220	250	250	150	220	220	150
Regulation									
a. Static Line Regulation max.	mV	96		120		40		96	
b. Static Load Regulation max.	mV	108		135		45		108	
c. Temperature Coefficient *4	%/°C	0.03%/°C							
d. Drift max. *5	mV	75		90		40		75	
e. Dynamic Load Reg. typ.*6	mV	±360		±450		±150		±360	
f. Recovery Time *6	mS	20 [mS] Typ.							
g. Rise Time	mS	200mS(maximum) at 25°C and rated input/output							
h. Hold Up Time	mS	20mS(minimum) at 25°C and rated input/output							



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Environmental Specification	
Operating Temperature	-10 to +71°C (-10 to +50°C at 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
Vibration	5-10Hz:10mm double amplitude, 10-55Hz:19.6m/s ² , 20minutes' period for 60minutes each along X,Y,Z axes (non-operating)
Shock	196m/s ²
Cooling	Convection
Isolation Resistance	Primary-Secondary-Frame Ground 50MΩ (minimum) by DC500V insulation tester
Function/Protection	
Over current Protection ≥110% of Rated Output Current[A]	V1=Current Limiting with automatic recovery
Over voltage Protection ≥115% of Rated Output Voltage[V]	Zener Diode Clamping
Remote Sense	Not Available
Remote ON/OFF	Not Available
Power Fail Detection	Not Available
Parallel/Series Operation	Not Available
Other Specifications	
Leakage Current (typ.)	55uA (typical) at 25°C, 50Hz and AC 100V input
Line Conducted Noise	Built to meet FCC Part15-B Class B Built to meet VCCI Class B
Safety	UL : UL60950 C-UL : CSA C22.2 No.950
MTBF [H]	1,200,000
Switching Frequency [kHz] (typ.)	110 kHz at rated input/output (130kHz for BJS3.3SA-U at rated input/output) 90 to 600 kHz at input voltage of AC 85 to 132V with a load of 0 to 1000025
Mechanical Specification	
Dimension [mm]	42Wx70Lx16H [1.654Wx2.756Lx0.6299H]
Weight (typical)	35g

Conditions:

- *1 at cold start
- *2 at DC100V input/rated output and 25°C
- *3 measured by a bayonet probe at the output connector at a 0 to 100 MHz bandwidth
- *4 at -10 to +71°C
- *5 for 7hour period after 1hour warm-up at 25°C and rated input/output
- *6 when output current changed from 50% to 150% of rated output current rapidly at rated input

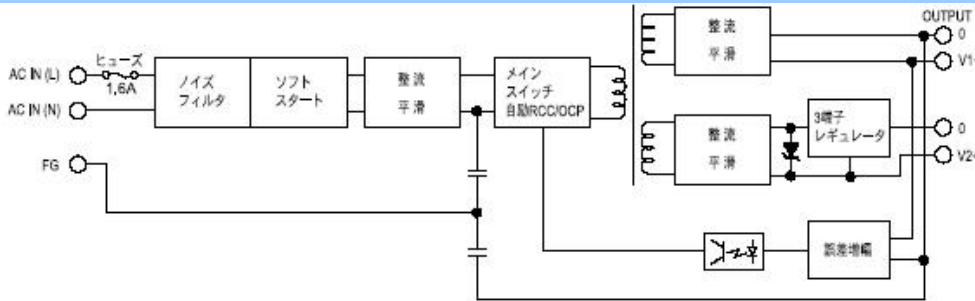




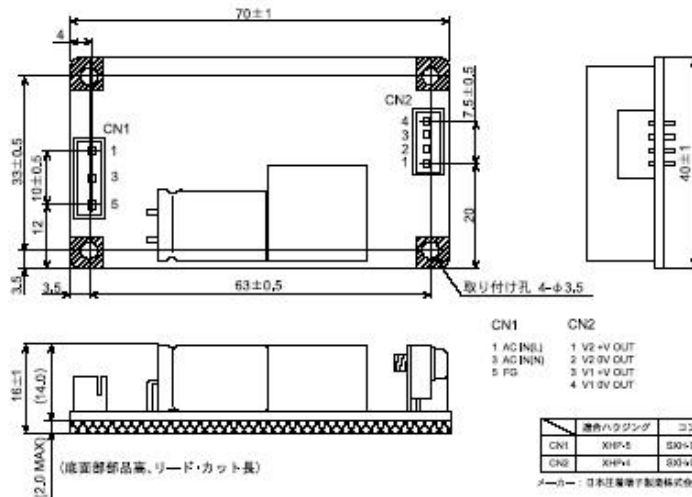
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HIGH QUALITY SWITCHING POWER SUPPLIES

BLOCK DIAGRAM

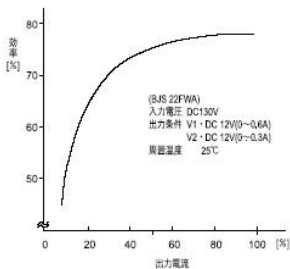


DIMENSION DIAGRAM

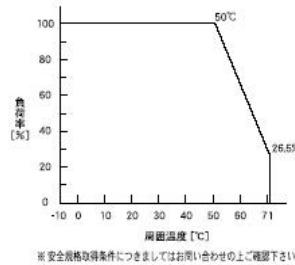


4ヶ所の製縁部は取り付け用金属部の実装可能範囲です。(基板端面より各々7[mm]以内)
 又、基板端面から7[mm]以内の条件でAC入力部パターンとのクリアランスは2[mm]以内です。

EFFICIENCY CURVE



DERATING CURVE



OCP CURVE

