



BIAS Power Supply Module

BPS 0.5 Series Data Sheet

BPS 0.5-08-00, -08-33, -08-50

BPS 0.5-14-00, -15-33, -14-50



Actual Size

The BPS 0.5 Power Supply Module is an ideal replacement for current standby power applications in appliances and consumer electronics. Also appropriate for low-power industrial and commercial applications. This low-cost supply provides up to one half watt of output power at 8 or 14 VDC (V_o) and an optional 5 VDC (V_r) output to power standby functions such as a clock, microprocessor or remote control sensor. Incorporating a custom integrated circuit into a small package ($0.5 \text{ in}^3 [8.0 \text{ cm}^3]$) the BIAS Module provides an immediate “drop-in” solution, requiring no additional external components.

Features

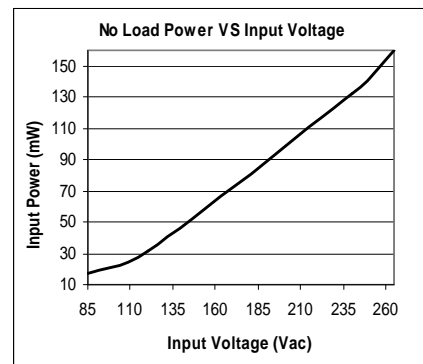
- Universal Input (85-265 VAC, 50/60Hz)
- Small Size— $0.5 \text{ in}^3 [8.0 \text{ cm}^3]$
- Single Component Solution
- Very low no-load input power <30mW
- 3000 VAC Isolation
- Up to 75% efficiency
- EN 55022, Class B; FCC Part 15, Class B
- Meets UL/CSA and EN Product Safety Requirements (ITE)



Operating Specifications

(@120VAC / 60 Hz / 25°C unless otherwise specified)

Electrical	
Input Voltage Range	85 - 265 VAC (50/60Hz)
Input Surge Withstand	308V, < 30 sec
Output Power (Pmax)	0.5 W min. (60Hz) 0.43 W min. (50Hz)
Efficiency	70% nom.
Output V_o (Peak)	8 or 14 VDC nom. +/- 5%
Line / Load Regulation V_o (Peak)	+/- 1% $P_o < P_{max}$
Temperature Regulation V_o (Peak)	+/- 2% $P_o < P_{max}$
Ripple V_o (@ 120 Hz) (@ 100 kHz)	1.00 V p:p 0.25 V p:p
Output V_r	5 VDC +/- 5%, I_r out 75mA max 3.3 VDC +/- 5%, I_r out ___mA max I_o out + I_r out <= 75mA
No-load Consumption	30 mW typical @ $V_{in}=120$ VAC
Isolation	3000 VAC (meets UL / CSA & EN Product Safety)
Earth Leakage @ 120 VAC	< 10 uA
Short Circuit Protection	Continuous, $P_{in} = 0.6 \text{ w}$ @ $V_{in} = 120$ VAC
Reliability @ 25° C	> 200 Khr MTBF
Thermal	
Operating Temperature	-30 to 70° C
Operating Relative Humidity	0 – 95%, non-condensing
Storage Temperature	-40 to 105° C
Mechanical	
Package Size (L x W x H)	1.04 x 0.90 x 0.53 inches [26.5 x 22.8 x 13.4 mm]
Safety	
Safety Compliance ²	UL / EN 60950 (CB Report Available)
EMI Emissions	EN 55022, Class B, FCC Part 15, Class B



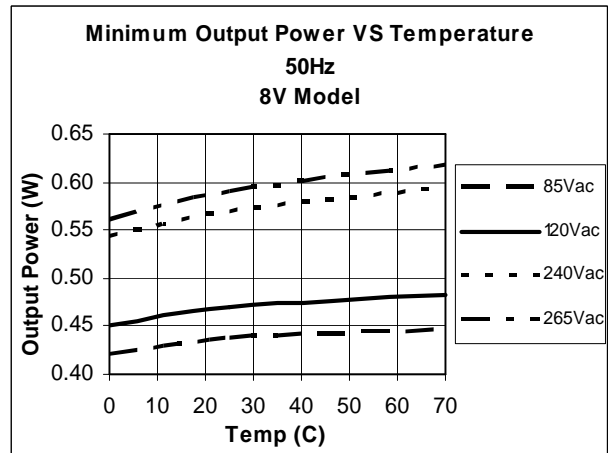
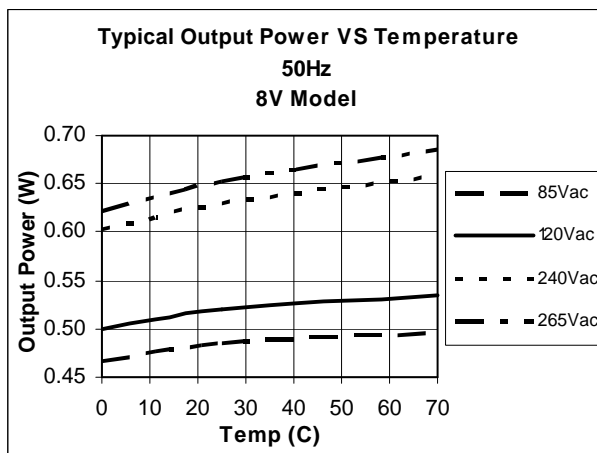
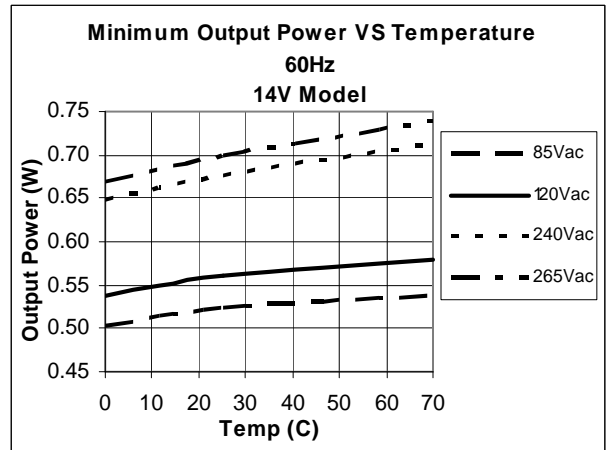
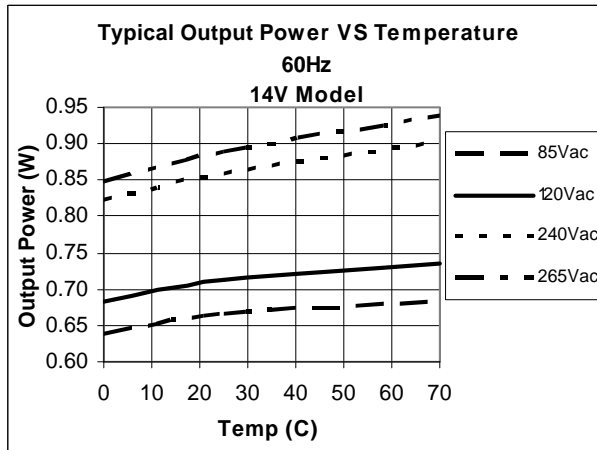
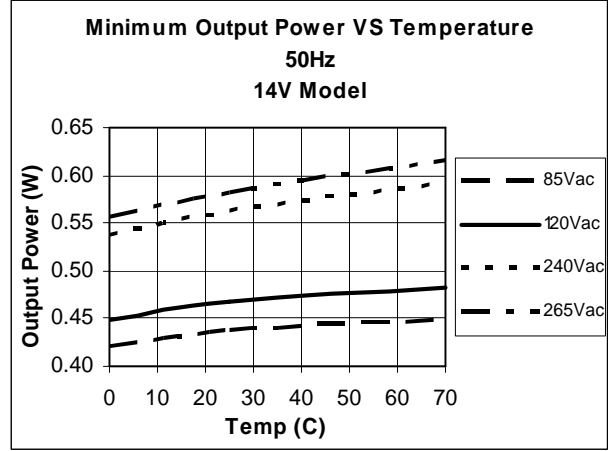
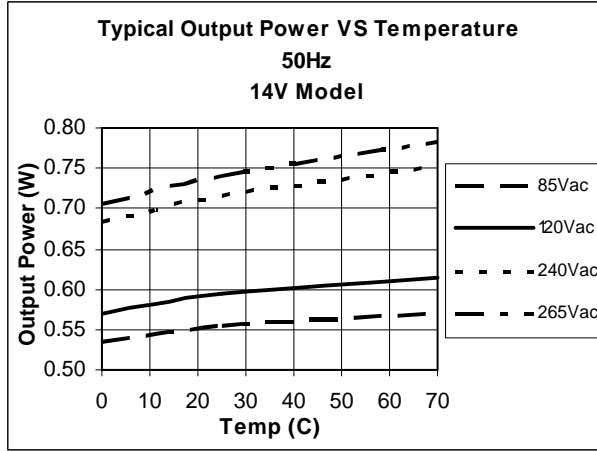


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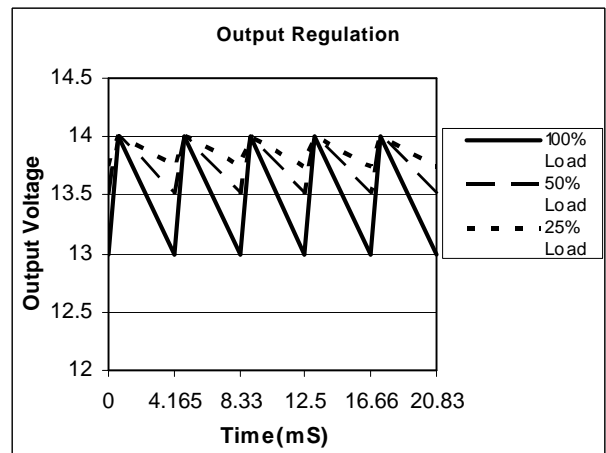
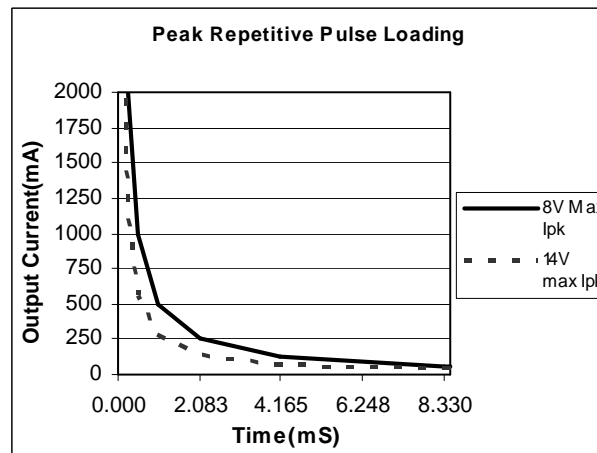
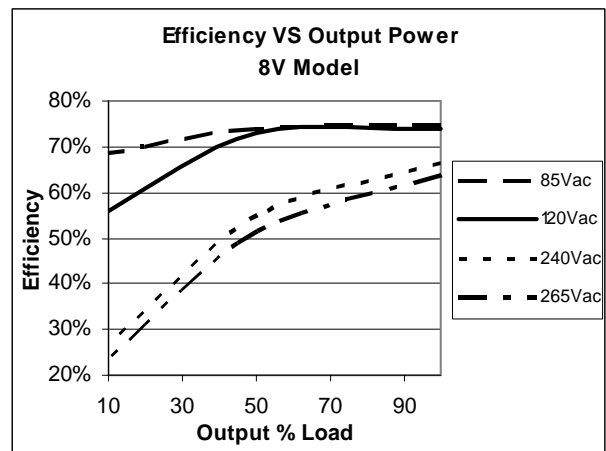
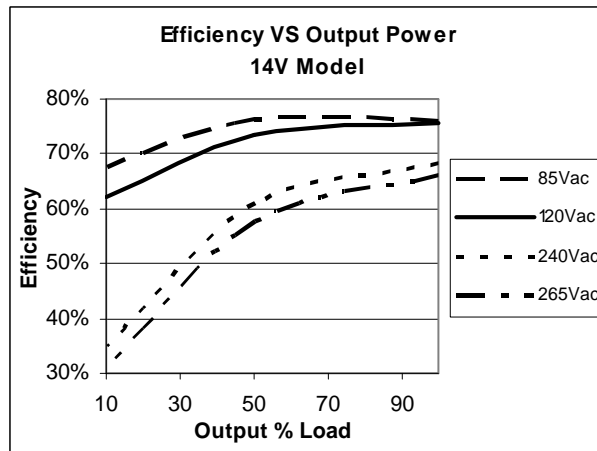
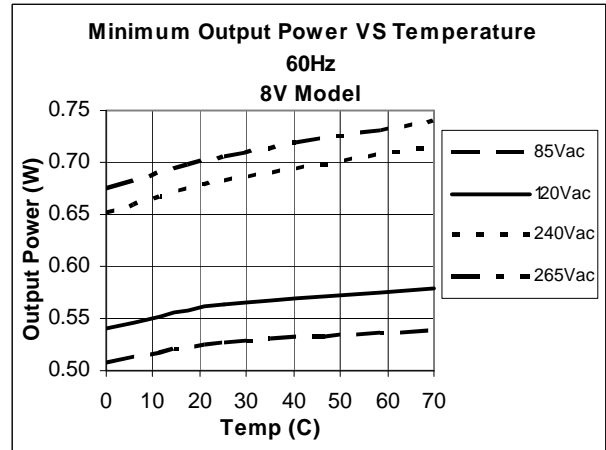
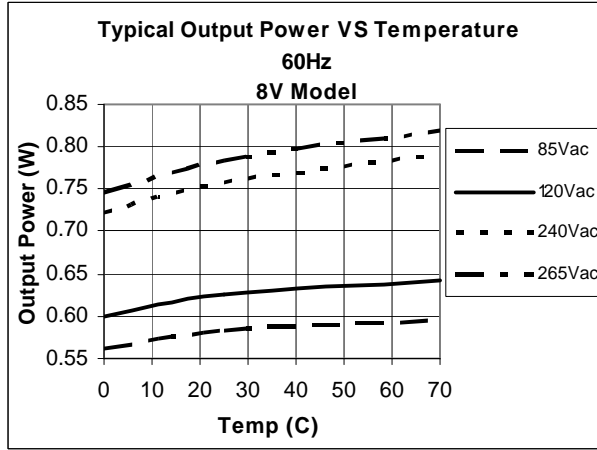


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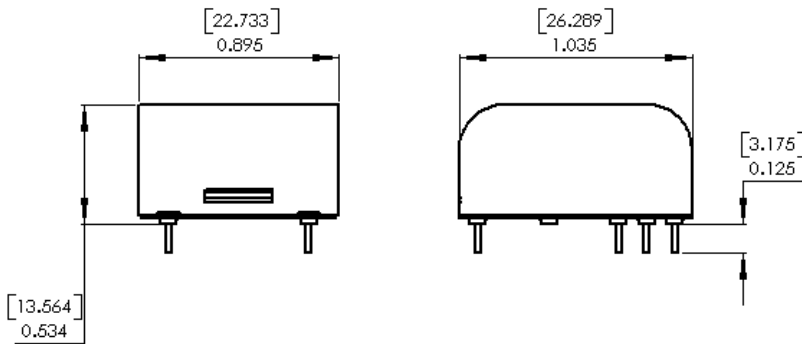
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Part Number Designation

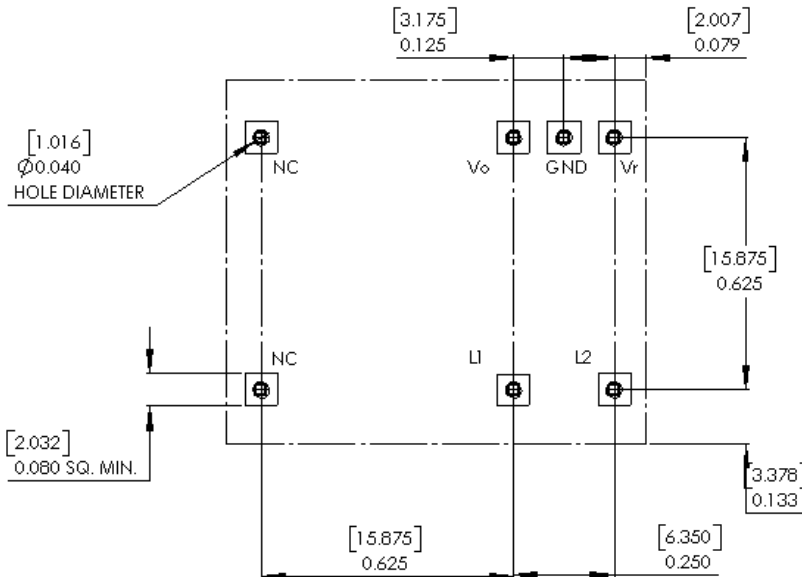
Part Number	Output Configuration	Vo	Vr
BPS 0.5-08-00	Single output	8 VDC	N/A
BPS 0.5-14-00	Single output	14 VDC	N/A
BPS 0.5-08-50	Dual Output	8 VDC	5 VDC

For custom configurations, contact BIAS Power.

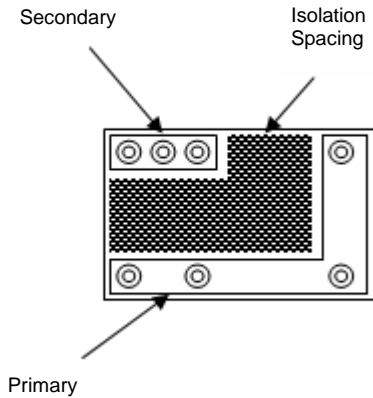


PIN DESIGNATOR	DESCRIPTION
L1	Input High
L2	Input Low
N/C	No Connection
Vo	Output
GND	Ground
Vr	Vr Output
N/C	No Connection

Recommended Land Pattern, top view



Isolation, Bottom View



- NOTES**
1. Pins 0.025" [0.63 mm] square
 2. Pins extend 0.125" [3.17 mm] below stand-offs