



BIAS Standby Supply Module - 1W BPW 1 Series Data Sheet

The BPW 1 Standby Power Supply Module is an ideal replacement for current standby power applications in appliances and consumer electronics. This low-cost supply provides up to one watt of output power at 8 or 14 VDC (Vo) to power standby functions such as a clock, microprocessor or remote control sensor. Incorporating a custom integrated circuit into a small package (0.5 in³ [8.0 cm³]) the BIAS Standby Module provides an immediate “drop-in” solution, requiring no additional external components.

Operating Specifications

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

Electrical

Input Voltage Range	90 - 308 VAC (50/60Hz)
Output Power (Pmax)	1.0 W nom. (60Hz) 0.83 W nom. (50Hz)
Efficiency	70% nom.
Output Vo (Pk)	+8 or 14 VDC nom. +/- 5%
Line / Load Regulation Vo (Pk)	+/- 1% Po < Pmax
Temperature Regulation Vo (Pk)	+/- 2% Po < Pmax
Ripple Vo (@120 Hz) (@ 100 kHz)	1.75 V p:p 0.25 V p:p
Output Vr	5 VDC +/- 5%, I _{rmax} 100mA ¹
No-load Consumption	30 mW typical @ Vin=120 VAC
Isolation	3000 VAC (meets UL / CSA & EN Product Safety)
Earth Leakage @ 120 VAC	< 10 uA
Short Circuit Protection	Continuous, Pin ≤ 0.7 W @ Vin = 120 VAC
Reliability @ 25° C	> 200 Khr MTBF

Thermal

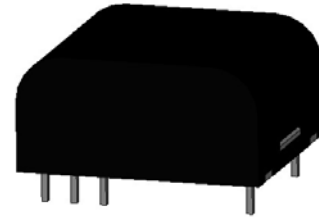
Operating Temperature	0 to 70° C
Operating Relative Humidity	0 – 95%, non-condensing
Storage Temperature	-40 to 105° C

Mechanical

Package Size (L x W x H)	1.03 x 0.89 x 0.53 inches [26.2 x 22.6 x 13.5 mm]
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Safety

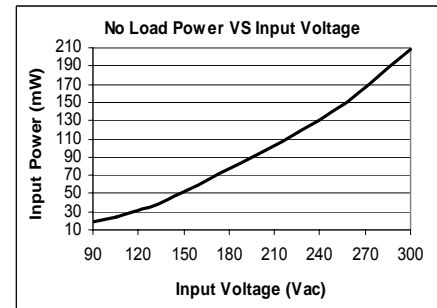
Safety Compliance ²	UL / EN 60950 (Pending)
EMI Conducted Emissions	EN 55022, Class B, FCC Part 15, B



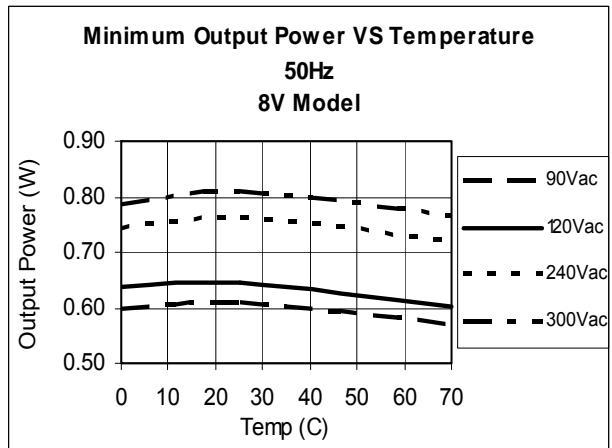
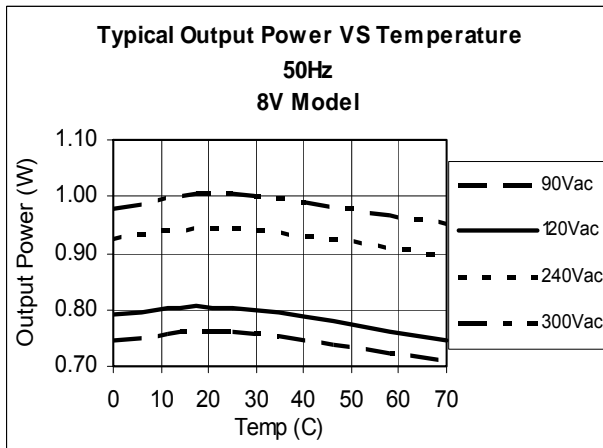
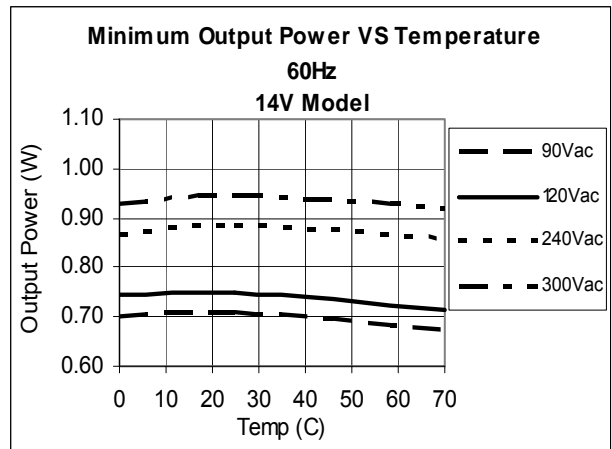
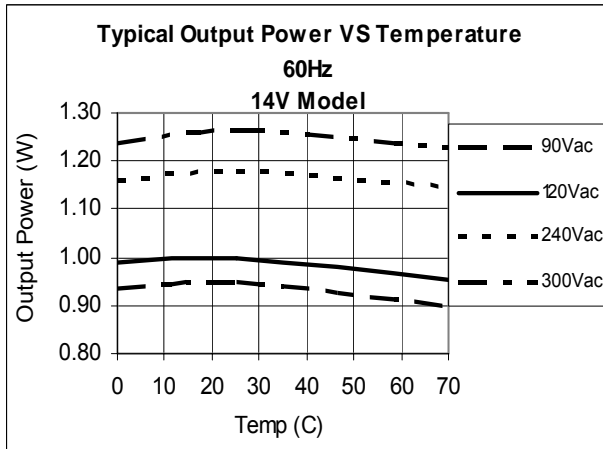
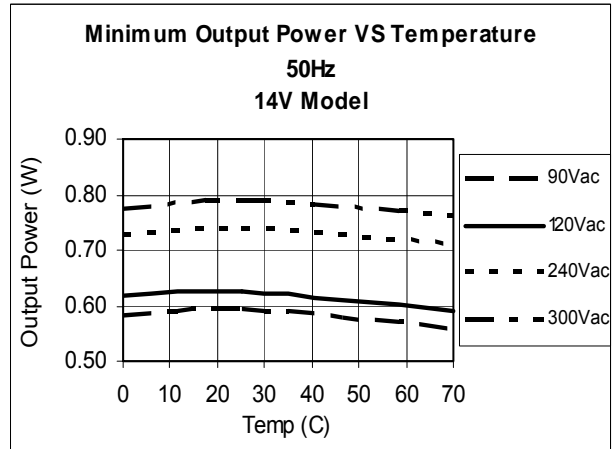
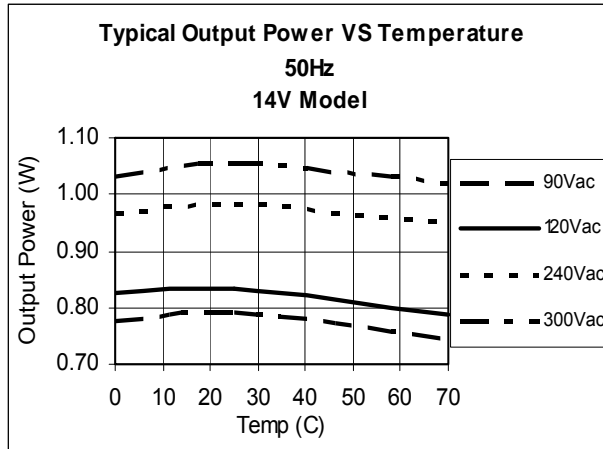
Actual Size

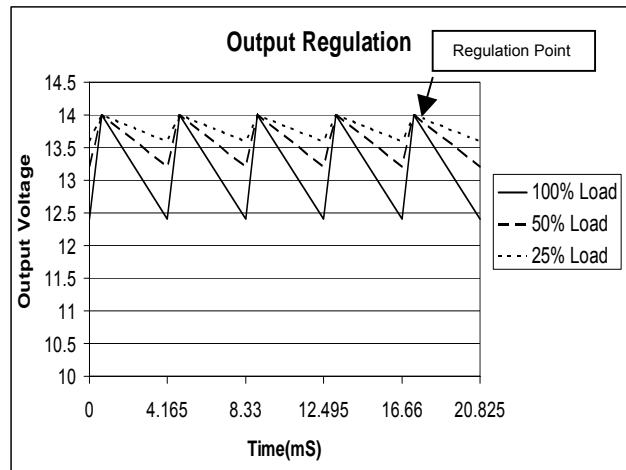
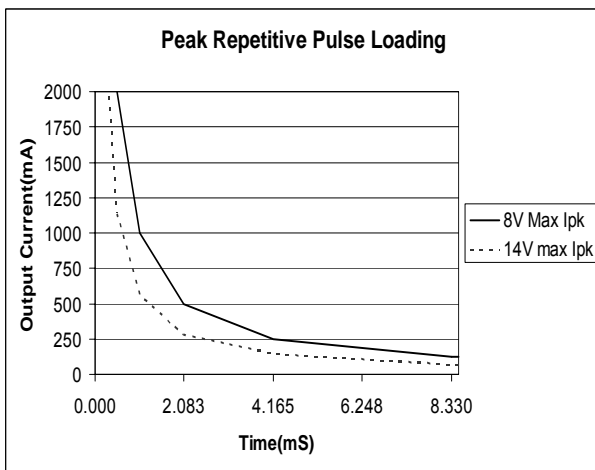
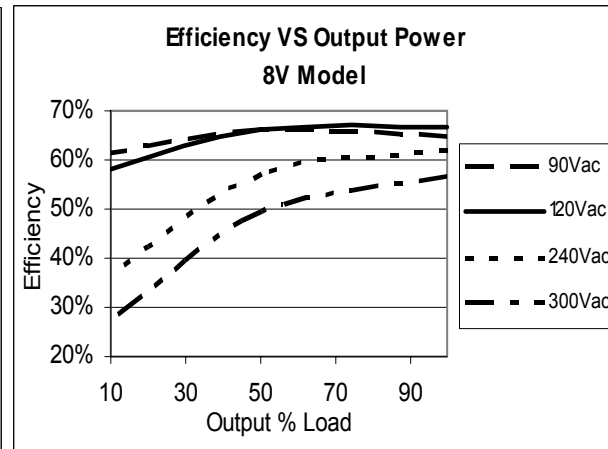
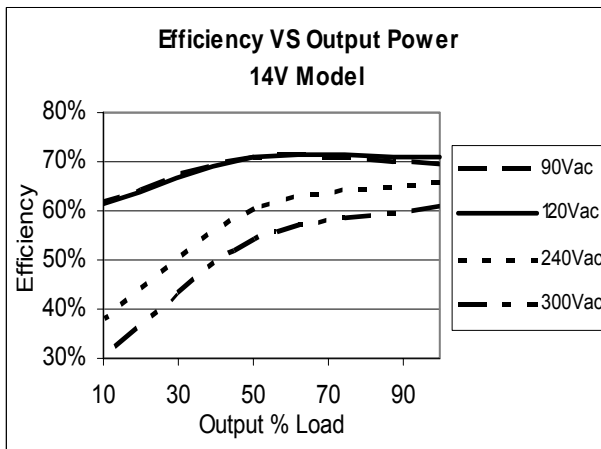
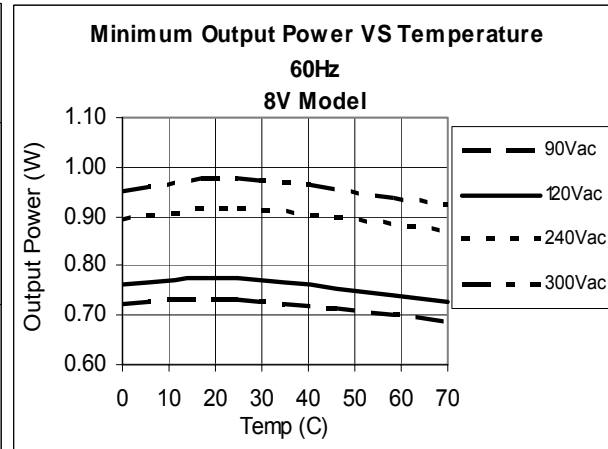
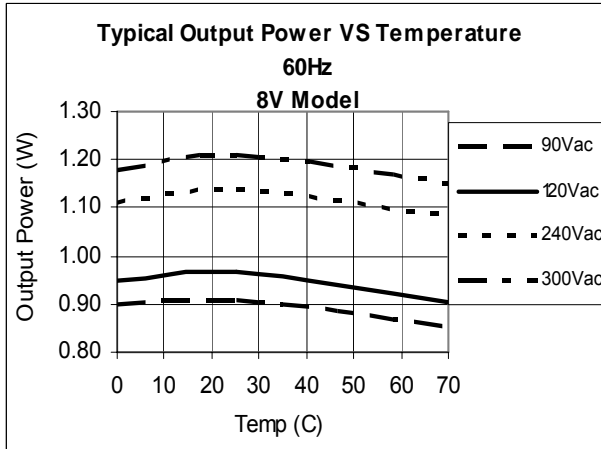
Features

- Very low standby <30mW
- Low Cost
- Single Component Solution
- 3000 VAC Isolation
- Universal Input (90-308 VAC)
- Small Size (0.5in³ [8.0cm³])
- EN 55022, Class B, FCC Part 15, B
- Meets UL/CSA and EN Product Safety Requirements (ITE)



1. I_{out} + I_{rout} ≤ 125 mA Total
2. CE Compliance 2006
3. Specifications subject to change





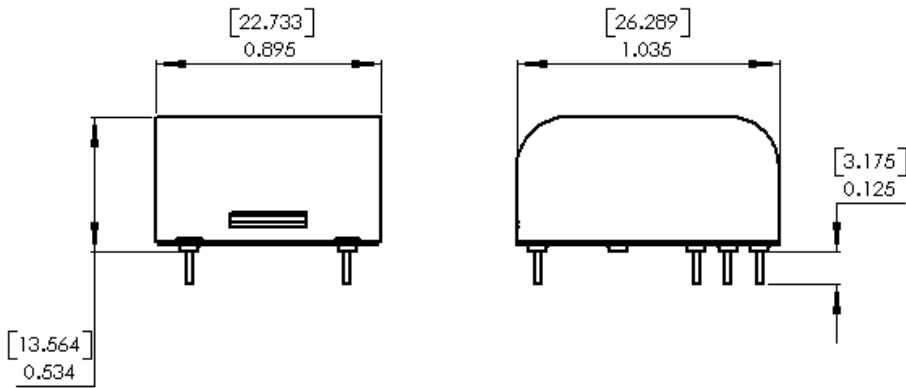


BIAS Power

Part Number Designation

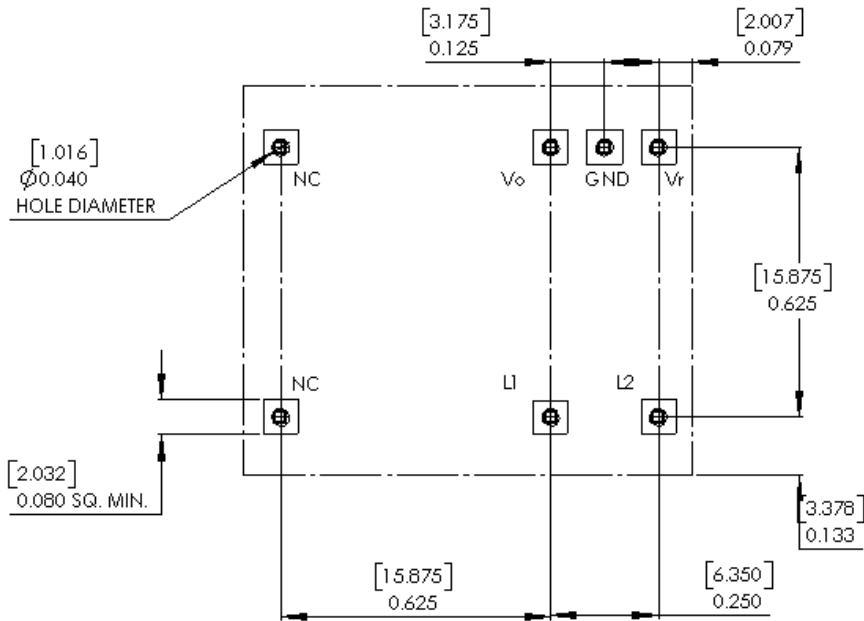
Part Number	Output Configuration	V _o	V _r
BPW 1-08-00	Single output	8 VDC	N/A
BPW 1-14-00	Single output	14 VDC	N/A
BPW 1-08-50	Dual Output	8 VDC	5 VDC

For custom configurations, contact BIAS Power.

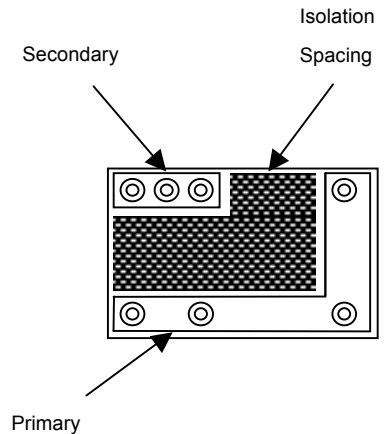


PIN DESIGNATOR	DESCRIPTION
L1	Input High
L2	Input Low
N/C	No Connection
V _o	Output
GND	Ground
V _r	V _r Output
N/C	No Connection

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



RECOMMENDED LAND PATTERN
TOP VIEW



ISOLATION
BOTTOM VIEW