P6BU-xxxxZLF

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PMA-SERIES Rev.11-2008

- ✓ 1 Watt
- ✓ Unregulated
- ✓ **Dual** Output
- ✓ **DIP8** Case
- ✓ **1 kV** DC I/O Isolation
- ✓ Low Ripple and Noise

The PMA series P6BU-xxxxZLF is a family of cost effective 1 W dual output DC/DC converters. These converters are in an ultra miniature DIP8 case. Devices are encapsulated. High performance features: 1000VDC input/output isolation, high efficiency operation, output voltage accuracy of ±3% maximum, input range of ±10% tolerance and low output ripple and noise.

All specifications typical at Ta=25℃, nominal input voltage and full load unless otherwise specified

Input Specifications	
Voltage Range	± 10%
Input Filter	Capacitor
Input Reflected Ripple Current[1]	20 mA pk-pk
Output Specifications	
Voltage Accuracy	± 3%
Short Circuit Protection	Short Term
Line Regulation	± 1.2% / 1% Vin Change
Load Regulation (20% - 100%)	± 10% (3.3Vout Models: ± 20%)
Ripple and Noise (20Mhz bandwidth)	100 mV pk-pk
Temperature Coefficient	± 0.02% / ℃
General Specifications	
Efficiency	See Table
I/O Isolation Voltage (3 sec.)	1000 VDC
I/O Isolation Capacity	60 pF, typ.
I/O Isolation Resistance	1000 MOhm
Switching Frequency	80 kHz (Variable)
Humidity	95% rel H
Reliability Calculated MTBF (MIL-HDBK-217F)	> 1.121 Mhrs
Physical Specifications	
Case Material	Non Conductive Black Plastic (UL94V-0 rated)
Potting Material	Epoxy (UL94V-0 rated)
Weight	~ 1.8g, typ.
Environment Specifications	
Operating Temperature	-40 to +85℃ (ambient)
Maximum Case Temperature	100℃
Storage Temperature	-40 to +125℃
Cooling	Free Air Convection
RoHS Conform	Soldering 260℃, max. (1.5mm from case 10s.)

Selection Guide

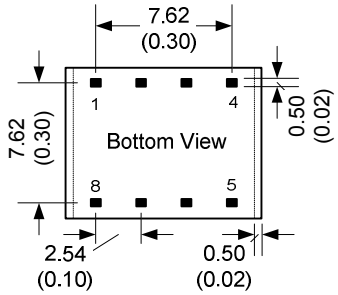
Dual Output

Order #	Input Voltage (VDC)	Input Current No Load (mA)	Input Current Full Load (mA)	Output Voltage (VDC)	Output Current Full Load (mA)	Efficiency (%)	Capacitor Load (uF)[2]
DUAL OUTPUT							
P6BU-053R3ZLF	5	30	285	± 3.3	± 152	70	± 100
P6BU-0505ZLF	5	30	277	± 5	± 100	72	± 100
P6BU-057R2ZLF	5	30	277	± 7.2	± 69	72	± 100
P6BU-0509ZLF	5	30	263	± 9	± 56	76	± 100
P6BU-0512ZLF	5	30	300	± 12	± 50	80	± 100
P6BU-0515ZLF	5	30	263	± 15	± 33	76	± 100
P6BU-0518ZLF	5	30	263	± 18	± 28	76	± 100
P6BU-0524ZLF	5	30	300	± 24	± 25	80	± 100
P6BU-123R3ZLF	12	15	119	± 3.3	± 152	70	± 100
P6BU-1205ZLF	12	15	115	± 5	± 100	72	± 100
P6BU-127R2ZLF	12	15	115	± 7.2	± 69	72	± 100
P6BU-1209ZLF	12	15	109	± 9	± 56	76	± 100
P6BU-1212ZLF	12	15	125	± 12	± 50	80	± 100
P6BU-1215ZLF	12	15	109	± 15	± 33	76	± 100
P6BU-1218ZLF	12	15	109	± 18	± 28	76	± 100
P6BU-1224ZLF	12	25	128	± 24	± 25	78	± 100
P6BU-243R3ZLF	24	10	58	± 3.3	± 152	71	± 100
P6BU-2405ZLF	24	10	57	± 5	± 100	73	± 100
P6BU-247R2ZLF	24	10	57	± 7.2	± 69	73	± 100
P6BU-2409ZLF	24	10	55	± 9	± 56	75	± 100
P6BU-2412ZLF	24	10	62	± 12	± 50	80	± 100
P6BU-2415ZLF	24	10	54	± 15	± 33	77	± 100
P6BU-2418ZLF	24	10	54	± 18	± 28	77	± 100
P6BU-2424ZLF	24	10	62	± 24	± 25	80	± 100

If you need other specifications, please enquire.

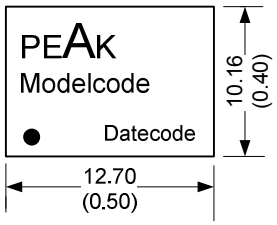
Notes:

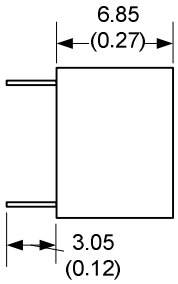
Package / Pinning / Derating



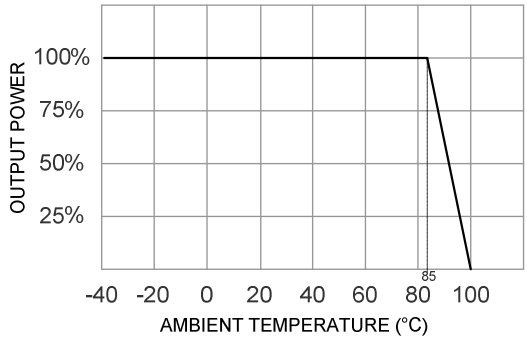
All dimensions are typical in millimeters (inches).
- Pin diameter: 1.0 +/-0.05 (0.04 +/-0.002)
- Pin pitch tolerance: +/-0.35 (+/-0.014)
- Case tolerance +/-0.5 (+/-0.02)
Specification may change without notice.

DIP 8 – PLASTIC CASE





TEMPERATURE DERATING GRAPH



PIN CONNECTIONS	
#	DUAL
1	- Vin
4	+Vin
5	+Vout
7	Common
8	- Vout
Others	Omitted

App Notes:

[1] = Measured Input reflected ripple current with a simulated source inductance of 12uH.
[2] = Tested by minimal Vin and constant resistive load.

- Operation under no-load conditions will not damage these devices, but they will not observe the listed specifications.

EMC SPECIFICATIONS		
Radiated Emissions	EN 55022 FCC 47CFR Part 15/B	CLASS B CLASS B
ESD	IEC 61000-4-2	Perf. Criteria B
RS	IEC 61000-4-3	Perf. Criteria A