P6LG-xxxxEK

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PMM4-SERIES Rev.04-2015

- ✓ 1 Watt
- ✓ Regulated
- ✓ **Short Circuit Protection**
- ✓ **Single** Output
- ✓ **SIP7** Case
- ✓ **3 kV** DC I/O Isolation
- ✓ Low Ripple and Noise

The PMM4 series is a family of cost effective 1 W regulated single output DC/DC converters with short circuit protection. These converters are in an ultra miniature SIP7 case. Devices are encapsulated. High performance features: Regulated Output, 3000VDC input/output isolation, high efficiency operation, output voltage accuracy of ±2% 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	Capacitors
Input Reflected Ripple Current[1]	20 mA pk-pk
Output Specifications	
Voltage Accuracy	± 2%
Short Circuit Protection	Continuous
Line Regulation	± 0.5%
Load Regulation (0% - 100%)	± 0.5% (3.3Vout Models: ± 1.0%)
Ripple and Noise (20Mhz bandwidth)	50 mV pk-pk
Temperature Coefficient	± 0.02% / ℃
General Specifications	
Efficiency	See Table
I/O Isolation Voltage (3 sec.)	3000 VDC
I/O Isolation Capacity	60 pF, typ.
I/O Isolation Resistance	1000 M Ohm
Switching Frequency	50 kHz (Variable)
Humidity	95% rel H
Reliability Calculated MTBF (MIL-HDBK-217F)	> 3.5 Mhrs
Physical Specifications	
Case Material	Non Conductive Black Plastic (UL94V-0 rated)
Potting Material	Epoxy (UL94V-0 rated)
Weight	~ 2.7g, typ.
Environment Specifications	
Operating Temperature	-40 to +85℃ (ambient)
Maximum Case Temperature	100℃
Storage Temperature	-40 to +125℃
Cooling	Free Air Convection (10 mm distance required)
RoHS Conform	Soldering 260℃, max. (1.5 mm from case 10s.)

Selection Guide
Single Output

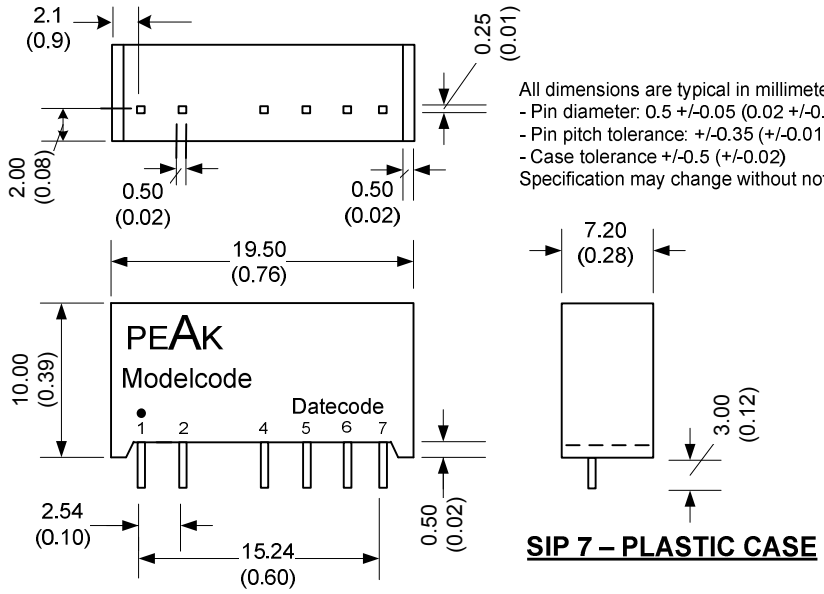
Order #	Input Voltage (VDC)	Input Current No Load (mA)	Input Current Full Load (mA)	Output Voltage (VDC)	Output Current Full Load (mA)	Efficiency (%)	Capacitor Load (uF)[2]	
SINGLE OUTPUT								
P6LG-053R3EK	5	30	363	3.3	333	55	220	
P6LG-0505EK	5	30	312	5	200	64	220	
P6LG-057R2EK	5	30	312	7.2	138.9	64	220	
P6LG-0509EK	5	35	307	9	111.1	65	220	
P6LG-0512EK	5	35	303	12	83.3	66	220	
P6LG-0515EK	5	35	303	15	66.7	66	220	
P6LG-123R3EK	12	20	148	3.3	333	56	220	
P6LG-1205EK	12	20	130	5	200	64	220	
P6LG-127R2EK	12	20	128	7.2	138.9	65	220	
P6LG-1209EK	12	20	126	9	111.1	66	220	
P6LG-1212EK	12	20	126	12	83.3	66	220	
P6LG-1215EK	12	20	122	15	66.7	68	220	
P6LG-243R3EK	24	10	74	3.3	333	56	220	
P6LG-2405EK	24	10	66	5	200	63	220	
P6LG-247R2EK	24	10	64	7.2	138.9	65	220	
P6LG-2409EK	24	10	63	9	111.1	66	220	
P6LG-2412EK	24	10	62	12	83.3	67	220	
P6LG-2415EK	24	10	62	15	66.7	67	220	

If you need other specifications, please enquire.

Notes:

Specification can change without a notice – We accept no liability for any inaccuracy or printing errors.

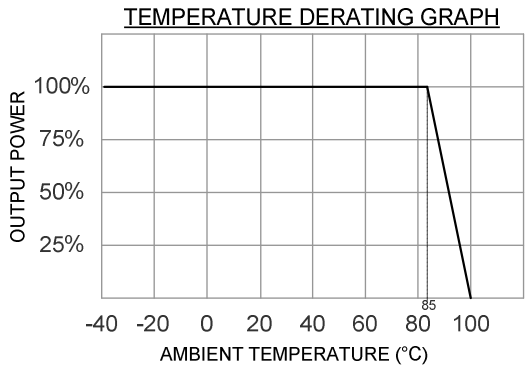
Package / Pinning / Derating



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

SIP 7 – PLASTIC CASE

TEMPERATURE DERATING GRAPH



PIN CONNECTIONS	
#	SINGLE (3KV)
1	+Vin
2	- Vin
4	Omitted
5	- Vout
6	Omitted
7	+Vout

App Notes:

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

EMV Specifications

Conducted Disturbance	EN55022, CLASS B
Radiated Emission	EN55022, CLASS B
ESD	IEC61000-4-2 Perf. Criteria A
RS	IEC61000-4-3 Perf. Criteria A
EFT	IEC61000-4-4 Perf. Criteria A
Surge	IEC61000-4-5 Perf. Criteria A
CS	IEC61000-4-6 Perf. Criteria A
PFMF	IEC61000-4-8 Perf. Criteria A

EMI Filter:

Input Filter Components help to meet conducted emissions requirement.
C1: 470uF/100V
L: 12uH

