P6CG-xxxxELF

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The world of DC/DC converters
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PM4-SERIES Rev.02-2009

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

The PM4 series P6CG-xxxxELF is a family of cost effective 1 W regulated single output DC/DC converters. These converters are in an ultra miniature SIP7 case. Devices are encapsulated. High performance features: Regulated Output, 1000VDC 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	Short Term
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.)	1000 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)	> 4.261 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

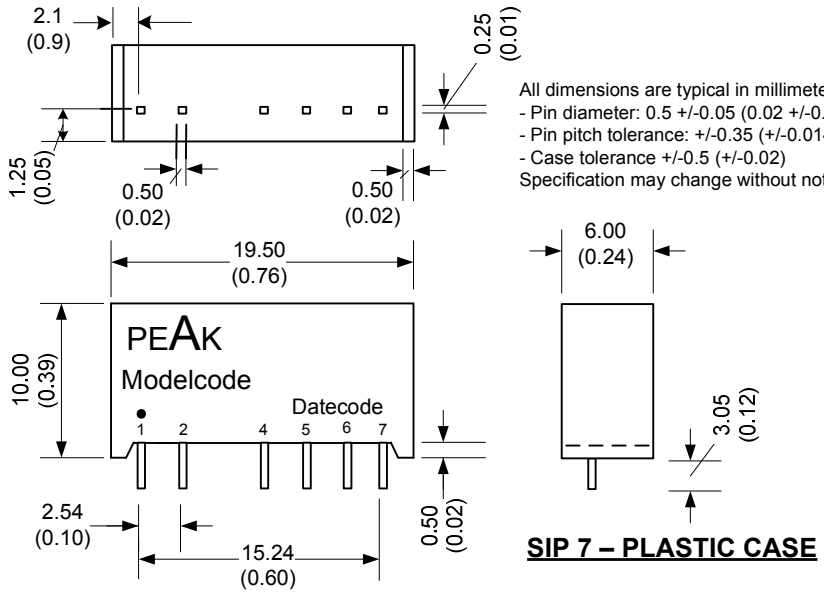
Order #	Input Voltage (VDC)	Input Current No Load (mA)	Input Current Full Load (mA)	Output Voltage (VDC)	Output Current Full Load (mA)	Efficiency (%)	Capacitor Load (uF)[2]
SINGLE OUTPUT							
P6CG-053R3ELF	5	30	385	3.3	333	57	220
P6CG-0505ELF	5	30	307	5	200	65	220
P6CG-057R2ELF	5	30	307	7.2	138.9	65	220
P6CG-0509ELF	5	35	307	9	111.1	65	220
P6CG-0512ELF	5	35	294	12	83.3	68	220
P6CG-0515ELF	5	35	294	15	66.7	68	220
P6CG-123R3ELF	12	20	160	3.3	333	57	220
P6CG-1205ELF	12	20	132	5	200	63	220
P6CG-127R2ELF	12	20	128	7.2	138.9	65	220
P6CG-1209ELF	12	20	126	9	111.1	66	220
P6CG-1212ELF	12	20	122	12	83.3	68	220
P6CG-1215ELF	12	20	126	15	66.7	66	220
P6CG-243R3ELF	24	10	76	3.3	333	60	220
P6CG-2405ELF	24	10	64	5	200	65	220
P6CG-247R2ELF	24	10	64	7.2	138.9	65	220
P6CG-2409ELF	24	10	61	9	111.1	68	220
P6CG-2412ELF	24	10	61	12	83.3	68	220
P6CG-2415ELF	24	10	61	15	66.7	68	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.

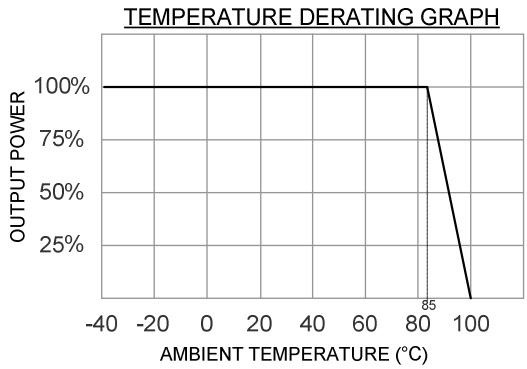
Package / Pinning / Derating



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



PIN CONNECTIONS	
#	SINGLE
1	+Vin
2	- Vin
4	- Vout
5	Omitted
6	+Vout
7	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.

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