

P6CG-xxxxZSLF



PM2-SERIES

Rev.02-2009

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

The PM2 series P6CG-xxxxZSLF is a family of cost effective 1 W regulated dual split 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 $\pm 2\%$ maximum, input range of $\pm 10\%$ tolerance and low output ripple and noise.

All specifications typical at $T_a=25^\circ\text{C}$, nominal input voltage and full load unless otherwise specified

Input Specifications

| | |
|---|-------------|
| Voltage Range | $\pm 10\%$ |
| Input Filter | Capacitors |
| Input Reflected Ripple Current ¹ | 20 mA pk-pk |

Output Specifications

| | |
|------------------------------------|-------------------------------|
| Voltage Accuracy | $\pm 2\%$ |
| Line Regulation | $\pm 0.4\%$ |
| Load Regulation (0% - 100%) | $\pm 0.3\%$ |
| Ripple and Noise (20Mhz bandwidth) | 50 mV pk-pk |
| Temperature Coefficient | $\pm 0.02\% / ^\circ\text{C}$ |

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 | 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 | ~ 2.5g, typ. |

Environment Specifications

| | |
|--------------------------|---|
| Operating Temperature | -25 to +71 $^\circ\text{C}$ (ambient) |
| Maximum Case Temperature | 100 $^\circ\text{C}$ |
| Storage Temperature | -40 to +125 $^\circ\text{C}$ |
| Cooling | Free Air Convection (10 mm distance required) |
| RoHS Conform | Soldering 260 $^\circ\text{C}$, max. (1.5 mm from case 10s.) |

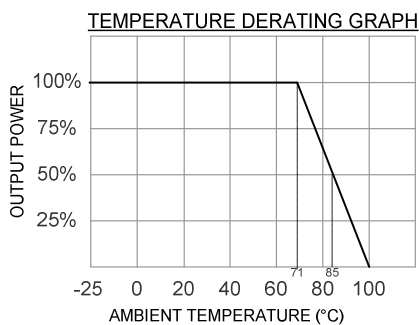
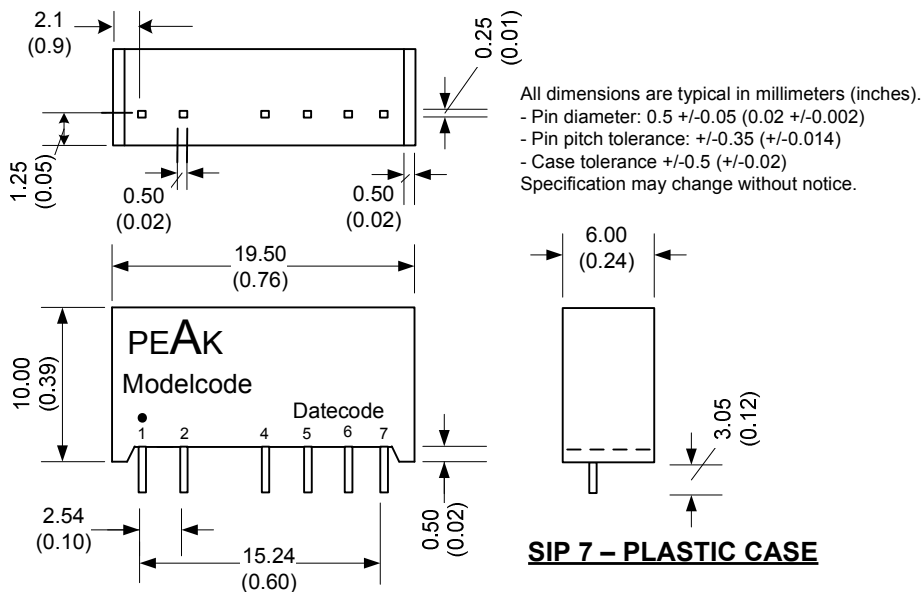
Selection Guide

Dual Split 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 SPLIT OUTPUT | | | | | | | |
| P6CG-0505ZSLF | 5 | 28 | 307 | 5, 5 | 100, 100 | 65 | 100 |
| P6CG-1205ZSLF | 12 | 15 | 124 | 5, 5 | 100, 100 | 67 | 100 |
| P6CG-1505ZSLF | 15 | 12 | 99 | 5, 5 | 100, 100 | 67 | 100 |
| P6CG-2405ZSLF | 24 | 8 | 59 | 5, 5 | 100, 100 | 70 | 100 |

If you need other specifications, please enquire.

Package / Pinning / Derating



| PIN CONNECTIONS | |
|-----------------|------------|
| # | DUAL SPLIT |
| 1 | +Vin |
| 2 | - Vin |
| 4 | +V2 out |
| 5 | Ground |
| 6 | + V1 out |
| 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.