

P14GG-xxxxE(Hxx)LF



PMF-SERIES

Rev.02-2009

- ✓ 3 Watt
- ✓ Regulated
- ✓ **Single** Output
- ✓ **SIP 12** Case
- ✓ **1 kV** up to **5.2kV** DC I/O Isolation
- ✓ Cont. Short Circuit Protection

The PMF series P14GG-xxxxE(Hxx)LF is a family of cost effective 3 W regulated single output DC/DC converters. These converters are in an ultra miniature SIP12 case. Devices are encapsulated. High performance features: Regulated Output, 1000VDC up to 5200VDC input/output isolation, high efficiency operation, output voltage accuracy of $\pm 2\%$ maximum and input range of $\pm 10\%$ tolerance.

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	$\pm 2\%$
Short Circuit Protection	Indefinite (Automatic Recovery)
Line Regulation	$\pm 0.5\%$
Load Regulation (0% - 100%)	$\pm 0.5\%$ (3.3V _{out} Models: $\pm 1.5\%$)
Ripple and Noise (20Mhz bandwidth)	75 mV pk-pk
Temperature Coefficient	$\pm 0.02\% / ^\circ\text{C}$

General Specifications

Efficiency	See Table
I/O Isolation Voltage (3 sec.)	1000 VDC (up to 5200 VDC optional*)
I/O Isolation Capacity	60 pF, typ.
I/O Isolation Resistance	1000 M Ohm
Switching Frequency	50 kHz (typ.)
Humidity	95% rel H
Reliability Calculated MTBF (MIL-HDBK-217F)	> 1.12 Mhrs

Physical Specifications

Case Material	Non Conductive Black Plastic (UL94V-0 rated)
Potting Material	Epoxy (UL94V-0 rated)
Weight	~ 7.2g, typ.

Environment Specifications

Operating Temperature	-25 to +71 °C (ambient)
Maximum Case Temperature	100 °C
Storage Temperature	-40 to +125 °C
Cooling	Free Air Convection
RoHS Conform	Soldering 260 °C, max. (1.5mm 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 (µF) ²
SINGLE OUTPUT							
P14GG-053R3ELF	5	100	748	3.3	600	53	470
P14GG-0505ELF	5	100	968	5	600	62	470
P14GG-057R2ELF	5	100	938	7.2	416	64	470
P14GG-0509ELF	5	100	896	9	333	67	470
P14GG-0512ELF	5	100	858	12	250	70	470
P14GG-0515ELF	5	100	883	15	200	68	470
P14GG-0518ELF	5	120	938	18	166	64	470
P14GG-0524ELF	5	120	938	24	125	64	470
P14GG-123R3ELF	12	60	300	3.3	600	55	470
P14GG-1205ELF	12	60	417	5	600	60	470
P14GG-127R2ELF	12	60	397	7.2	416	63	470
P14GG-1209ELF	12	60	374	9	333	67	470
P14GG-1212ELF	12	60	363	12	250	69	470
P14GG-1215ELF	12	60	358	15	200	70	470
P14GG-1218ELF	12	60	391	18	166	64	470
P14GG-1224ELF	12	60	368	24	125	68	470
P14GG-243R3ELF	24	30	153	3.3	600	54	470
P14GG-2405ELF	24	30	205	5	600	61	470
P14GG-247R2ELF	24	30	198	7.2	416	63	470
P14GG-2409ELF	24	30	193	9	333	65	470
P14GG-2412ELF	24	30	179	12	250	70	470
P14GG-2415ELF	24	30	176	15	200	71	470
P14GG-2418ELF	24	30	181	18	166	69	470
P14GG-2424ELF	24	30	176	24	125	71	470

If you need other specifications, please enquire.

***OPTIONS:**

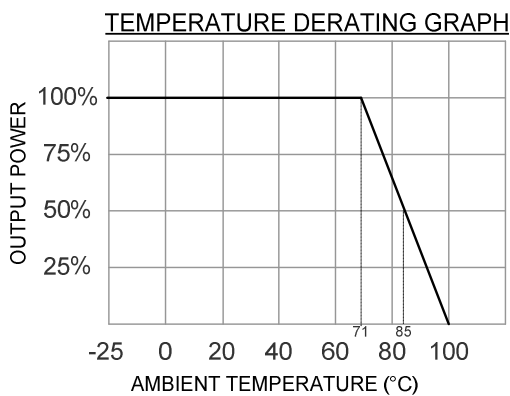
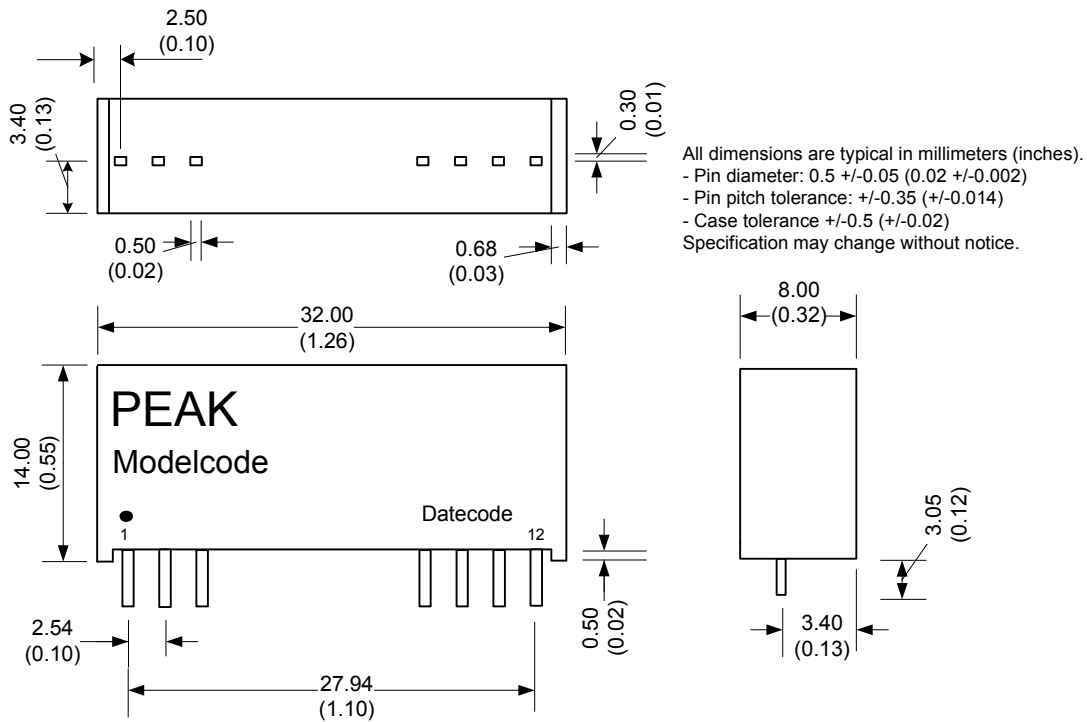
H30 = 3000 VDC ISOLATION

H52 = 5200 VDC ISOLATION

For other I/O Isolation please see table on the left hand side and add "Hxx" before LF (P14GG-2412EH52LF for 5.2kV)

Notes:

Package / Pinning / Derating



PIN CONNECTIONS		
#	SINGLE	SINGLE ≥3kV
1	+Vin	+Vin
2	N.C.	- Vin
3	N.C.	N.C.
9	N.C.	N.C.
10	- Vout	- Vout
11	+Vout	+Vout
12	- Vin	N.C.

App Notes:

¹ = Measured Input reflected ripple current with a simulated source inductance of 12uH.

² = Tested by minimal Vin and constant resistive load.