

# PK30WG-xxxxE/Z 2:1LF



## PMK02-SERIES

Rev.12-2009

- ✓ 30 Watt
- ✓ 2:1 Wide Input
- ✓ 1" x 2" Case
- ✓ 1.6 kV DC I/O Isolation
- ✓ Reg. Single and Dual Output
- ✓ Remote Control
- ✓ Trim Function

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

### Input Specifications

Voltage Range	2:1 Wide Input (See Table)
Input Filter	Pi Type

### Output Specifications

Voltage Accuracy	± 2 %
Short Circuit Protection	Current Limit (Automatic Recovery)
Over Power Protection	Over 120% of Rating (Automatic Recovery)
Over Voltage Protection	Zener Diode Clamp
Line Regulation (LL-HL)	± 0.5 %, typ.
Load Regulation (10% - 100%)	± 1 %, typ.
Ripple	50-60 mV (2.5, 3.3, 5 Vout), Others: < 0.2% + 40mV pk-pk, max.
Noise	120 mV (2.5, 3.3, 5 Vout), Others: < 0.5% + 50mV pk-pk, max.
Temperature Coefficient	± 0.02% / °C, max.

### General Specifications

Efficiency	See Table
I/O Isolation Voltage (3 sec.)	1600 VDC
I/O Isolation Resistance	10 <sup>8</sup> Ohms
Switching Frequency	400 kHz, typ.
Humidity	95% rel H
Reliability Calculated MTBF (MIL-HDBK-217F)	> 0.55 Mhrs

### Physical Specifications

Case Material	Five-side shielded Alu (non conductive Base)
Weight	~ 33 g, typ.

### Environment Specifications

Operating Temperature	-40 to +50 °C (for 100% - See Derating Graph)
Maximum Case Temperature	105 °C
Storage Temperature	-55 to +105 °C
Cooling	Free Air Convection (10mm distance required)
RoHS Conform	Soldering 260 °C, max. (1.5mm from case 10s.)

# Selection Guide

## Single Output

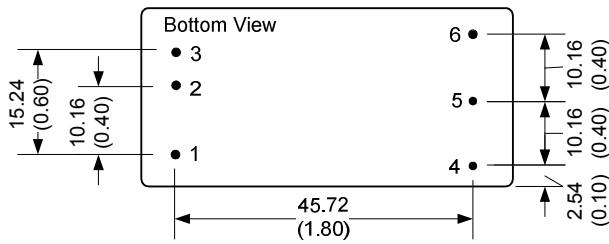
Order #	Watt (Output)	Input Voltage (VDC)	Output Voltage (VDC)	Output Current Full Load (mA)	Efficiency (%)	Capacitor Load (uF)
<b>SINGLE OUTPUT</b>						
PK30WG-242R5E2:1LF	15	18-36	2.5	6000	84	6800
PK30WG-243R3E2:1LF	19.8	18-36	3.3	6000	87	6800
PK30WG-2405E2:1LF	30	18-36	5	6000	90	4700
PK30WG-2412E2:1LF	30	18-36	12	2500	88	680
PK30WG-2415E2:1LF	30	18-36	15	2000	88	680
PK30WG-2424E2:1LF	30	18-36	24	1250	88	120
PK30WG-482R5E2:1LF	15	36-72	2.5	6000	85	6800
PK30WG-483R3E2:1LF	19.8	36-72	3.3	6000	88	6800
PK30WG-4805E2:1LF	30	36-72	5	6000	90	4700
PK30WG-4812E2:1LF	30	36-72	12	2500	88	680
PK30WG-4815E2:1LF	30	36-72	15	2000	88	680
PK30WG-4824E2:1LF	30	36-72	24	1250	88	120

## Dual Output

Order #	Watt (Output)	Input Voltage (VDC)	Output Voltage (VDC)	Output Current Full Load (mA)	Efficiency (%)	Capacitor Load (uF)
<b>DUAL OUTPUT</b>						
PK30WG-2405Z2:1LF	24	18-36	± 5	± 2400	85	± 820
PK30WG-2412Z2:1LF	30	18-36	± 12	± 1250	88	± 150
PK30WG-2415Z2:1LF	30	18-36	± 15	± 1000	88	± 120
PK30WG-4805Z2:1LF	25	36 - 72	± 5	± 2500	85	± 820
PK30WG-4812Z2:1LF	30	36 - 72	± 12	± 1250	88	± 150
PK30WG-4815Z2:1LF	30	36 - 72	± 15	± 1000	88	± 120

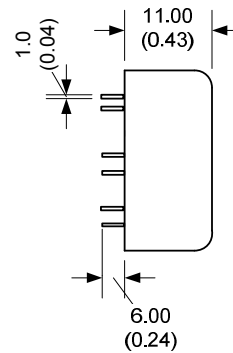
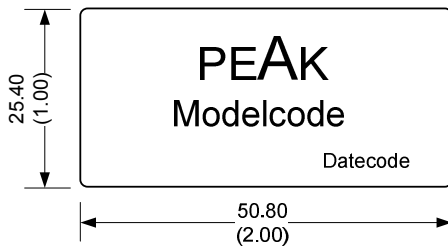
If you need other specifications, please enquire.

# Package / Pinning / Derating

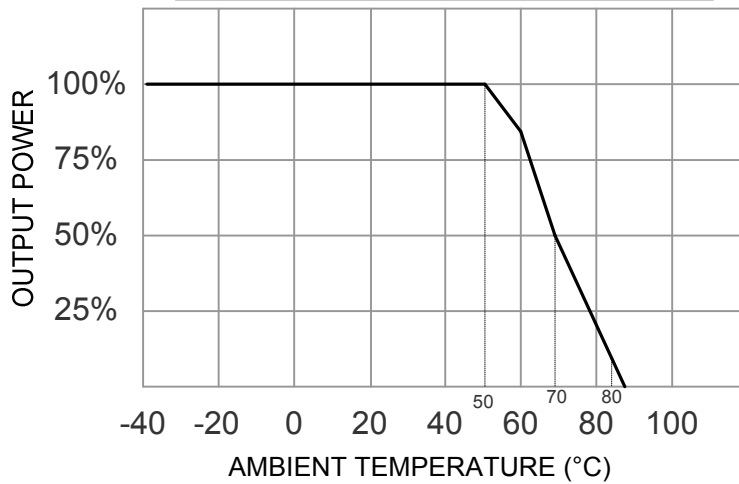


All dimensions are typical in millimeters (inches).  
 - Pin diameter: 1.0 +/-0.05 (0.04 +/-0.002)  
 - Pin pitch tolerance: +/-0.35 (+/-0.014)  
 - Case tolerance +/-0.5 (+/-0.02)  
 Specification may change without notice.

## 1" x 2" – METAL CASE



## TEMPERATURE DERATING GRAPH



PIN CONNECTION		
#	SINGLE	DUAL
1	Ctrl ON/OFF	
2	- Vin	- Vin
3	+ Vin	+ Vin
4	TRIM**	- Vout
5	- Vout	Common
6	+Vout	+Vout

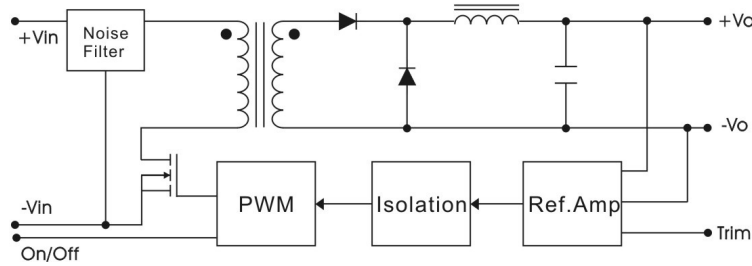
\*\* not connected at 24 Vout!

# Package / Pinning / Derating

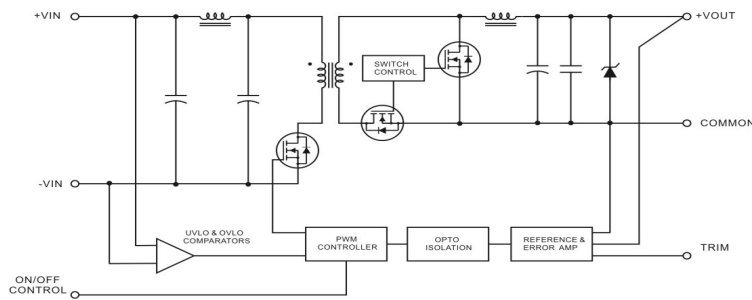
## App Notes:

### Block Diagramm:

#### Single Output

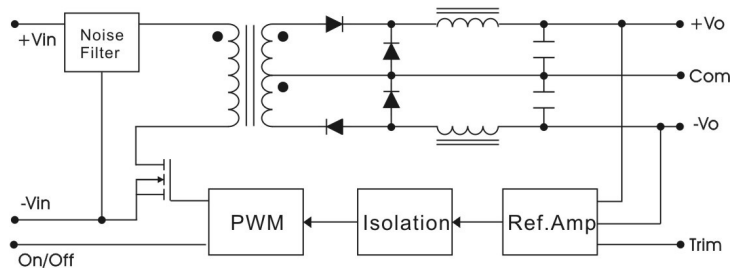


→ for 12. 15. 24 Vout



→ for 2.5. 3.3. 5 Vout

#### Dual Output



### TRIM:

