

# PK20VG-xxxxE2:1LF



## PMK01-SERIES

Rev.12-2009

- ✓ 20 Watt
- ✓ **2:1** Wide Input
- ✓ **1" x 1"** Case
- ✓ **1.6 kV** DC I/O Isolation
- ✓ **Regulated Single** Output
- ✓ Remote Control
- ✓ Short Circuit Prot.

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	L-C 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	75 - 100 mV pk-pk, max.
Noise	100 – 125 mV, 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	300 - 450 kHz, typ.
Humidity	95% rel H
Reliability Calculated MTBF (MIL-HDBK-217F)	> 0.8 Mhrs

### Physical Specifications

Case Material	Six-side shielded Alu (non conductive Base)
Weight	~ 15 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>						
PK20VG-123R3E2:1LF	14.85	9-18	3.3	4500	85	2000
PK20VG-1205E2:1LF	20	9-18	5	4000	89	2000
PK20VG-1212E2:1LF	20	9-18	12	1660	88	470
PK20VG-1215E2:1LF	20	9-18	15	1330	88	330
PK20VG-243R3E2:1LF	14.85	18-36	3.3	4500	86	2000
PK20VG-2405E2:1LF	20	18-36	5	4000	89	2000
PK20VG-2412E2:1LF	20	18-36	12	1660	89	470
PK20VG-2415E2:1LF	20	18-36	15	1330	89	330
PK20VG-483R3E2:1LF	14.85	36-72	3.3	4500	84	2000
PK20VG-4805E2:1LF	20	36-72	5	4000	88	2000
PK20VG-4812E2:1LF	20	36-72	12	1660	89	470
PK20VG-4815E2:1LF	20	36-72	15	1330	89	330

If you need other specifications, please enquire.

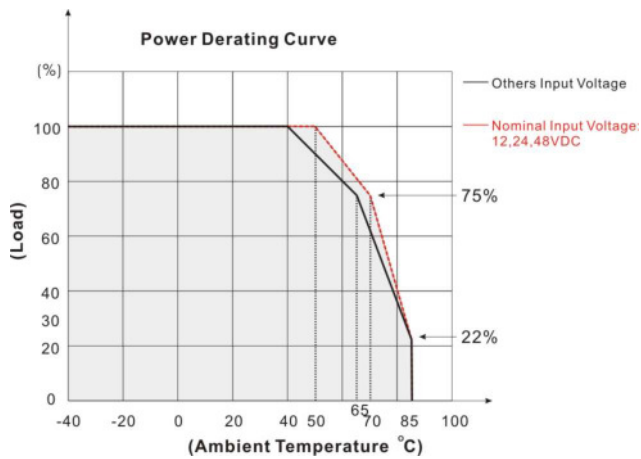
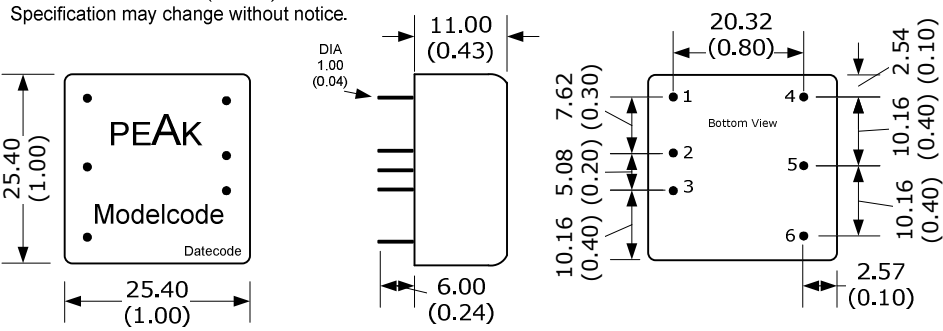
Notes:

# 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)

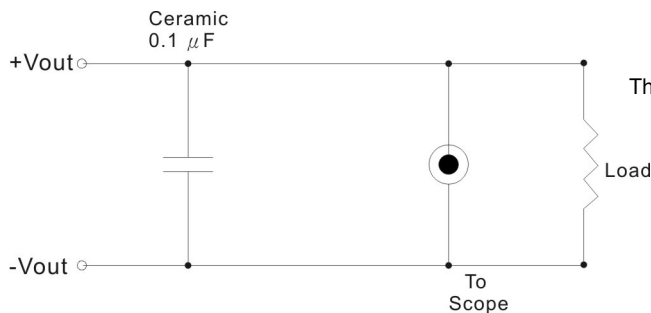
## 1" x 1" – Aluminium Case



PIN CONNECTION	
#	SINGLE
1	Ctrl ON/OFF
2	- Vin
3	+ Vin
4	- Vout
5	Omitted
6	+Vout

## App Notes:

### Output Noise:



The output noise is measured with 0.1μF tantalum capacitor.