

## PD10NG-XXXXE2:1 1KV ISOLATED 2W REGULATED SINGLE OUTPUT SIP8

### Electrical Specifications

(Typical at + 25°C , nominal input voltage, rated output current unless otherwise specified)

#### Input Specifications

Voltage range 4.5-9, 9-18, 18-36 and 36-72 VDC Wide Input  
Filter Capacitor type

#### Isolation Specifications

Rated voltage 1000 VDC  
Resistance >1 GΩ  
Capacitance 68 PF

#### Output Specifications

Voltage accuracy +/- 2 %, typ.  
Ripple and noise (at 20 MHz BW) 100 mV p-p, max.  
Short circuit protection Continuous, auto restart  
Line voltage regulation +/- 0.2 % typ.  
Load voltage regulation +/- 0.5 % typ. load = 10 ~ 100%  
Temperature coefficient +/- 0.02 % / °C

#### General Specifications

Efficiency Refer to the table  
Switching frequency 75 KHz, typ.

#### Environmental Specifications

Operating temperature (ambient) - 40 °C to + 80 °C  
Storage temperature - 55 °C to + 125 °C  
Humidity Up to 90 %, non condensing  
Cooling Free air convection

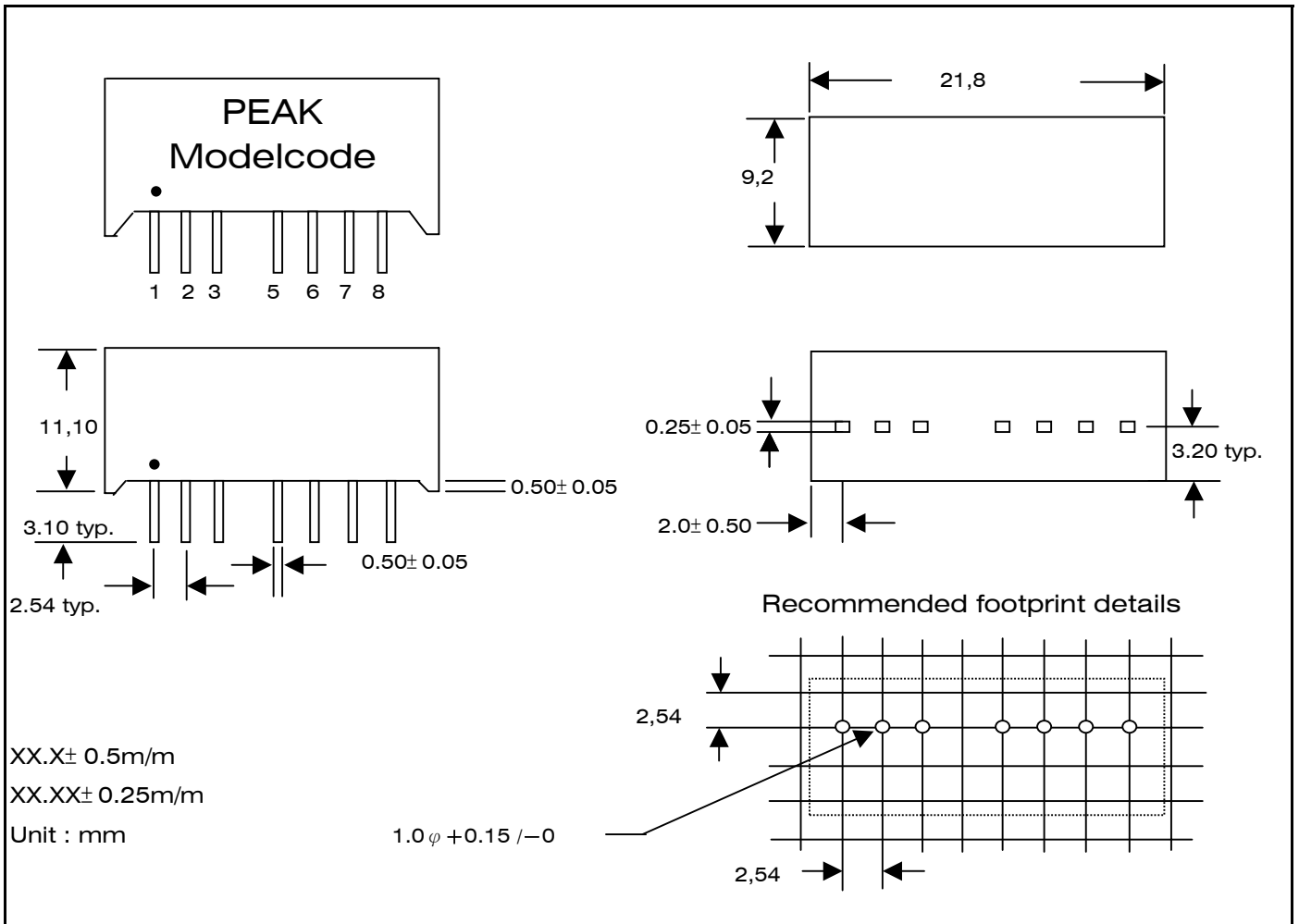
#### Physical Characteristics

Dimensions SIP 21.80 x 9.20 x 11.10 mm  
Case material Non conductive black plastic

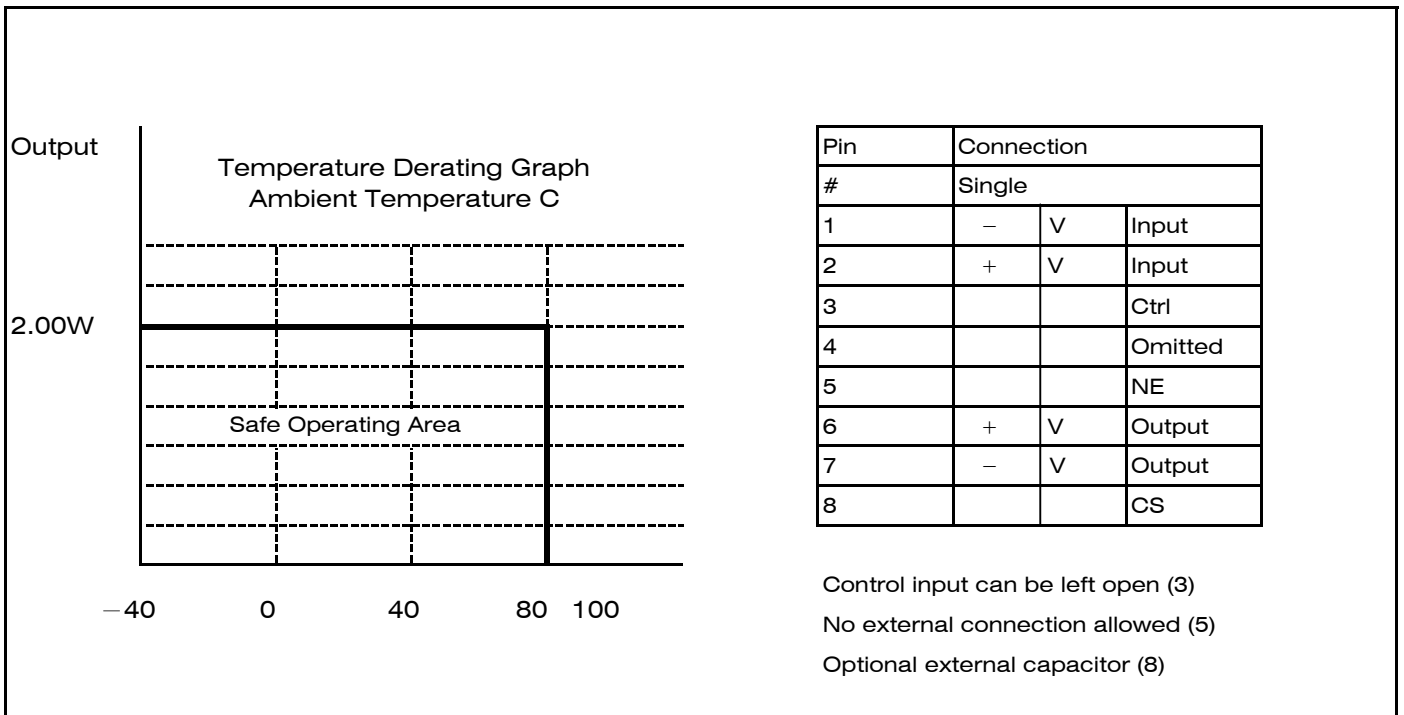
#### Samples of Partnumbers

PART NO.	INPUT VOLTAGE (VDC)	INPUT CURRENT NO LOAD (mA)	INPUT CURRENT FULL LOAD (mA)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (max.mA)	EFFICIENCY FULL LOAD (% TYP.)
PD10NG-053R3E2:1	4.5 - 9	41	487	3,3	606	68
PD10NG-0505E2:1	4.5 - 9	37	455	5	400	72
PD10NG-0509E2:1	4.5 - 9	38	458	9	222	71
PD10NG-0512E2:1	4.5 - 9	37	452	12	167	73
PD10NG-0515E2:1	4.5 - 9	37	452	15	133	73
PD10NG-0524E2:1	4.5 - 9	37	452	24	83	73
PD10NG-123R3E2:1	9 - 18	24	237	3,3	606	70
PD10NG-1205E2:1	9 - 18	23	219	5	400	75
PD10NG-1209E2:1	9 - 18	22	215	9	222	77
PD10NG-1212E2:1	9 - 18	22	212	12	167	78
PD10NG-1215E2:1	9 - 18	22	212	15	133	78
PD10NG-1224E2:1	9 - 18	22	217	24	83	76
PD10NG-243R3E2:1	18 - 36	12	117	3,3	606	71
PD10NG-2405E2:1	18 - 36	12	111	5	400	74
PD10NG-2409E2:1	18 - 36	12	108	9	222	78
PD10NG-2412E2:1	18 - 36	12	105	12	167	79
PD10NG-2415E2:1	18 - 36	11	102	15	133	80
PD10NG-2424E2:1	18 - 36	11	106	24	83	78
PD10NG-483R3E2:1	36 - 72	8	58	3,3	606	72
PD10NG-4805E2:1	36 - 72	7	54	5	400	77
PD10NG-4809E2:1	36 - 72	7	53	9	222	78
PD10NG-4812E2:1	36 - 72	7	52	12	167	80
PD10NG-4815E2:1	36 - 72	7	52	15	133	80
PD10NG-4824E2:1	36 - 72	7	53	24	83	78

**Dimensions**



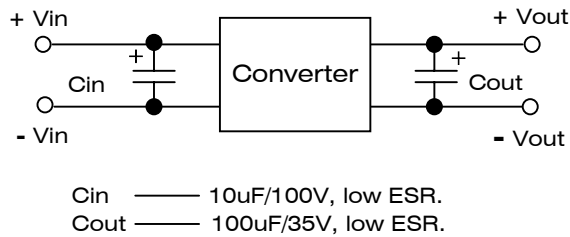
**Derating Graph and Pinning**



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### External capacitance:

These converters will work with without external capacitors but they are necessary in order to guarantee the full line load range. All parts have been tested using the following recommended values.



### Pin 8 (CS)

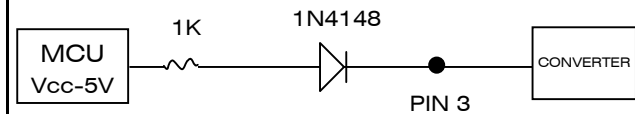
This pin provides a connection point to the main reservoir capacitor. Additional capacitance can be added from this to pin 7. Any low ESR capacitor will improve ripple and noise in some measure. Starting values can be in the range of 100uF.

### Pin 3 (CTRL)

Control pin (ON/OFF)

Output starts at low or open and stops when high. Voltage applied via a limiting resistor and switching diode. The converter is in a low power mode during the high level phase.

### Connection example



### Pin 5 (NE)

This pin is used internally and must have have no external connection.

### Application Notes

Pin 3: The outside control connection. This pin provides the converter output ON/OFF, and the control common is referred to negative input.

Pin 5: This pin belongs to the secondary side. It just avoids someone to reverses the primary and secondary.

Pin 8: Max. 1000 uF

Specification can be changed without notice.

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