

## STEERING DIODE/TVS ARRAY COMBO

## APPLICATIONS

- ✓ T1/E1 & T3/E3 Line Cards
- ✓ ISDN U-Interface & S/T Interface
- ✓ xDSL
- ✓ Ethernet - 10/100 Base T

## IEC COMPATIBILITY (EN61000-4)

- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 8/20 $\mu$ s - L4, 95A(Line-Gnd) & L4, 48A(Line-Line)

## FEATURES

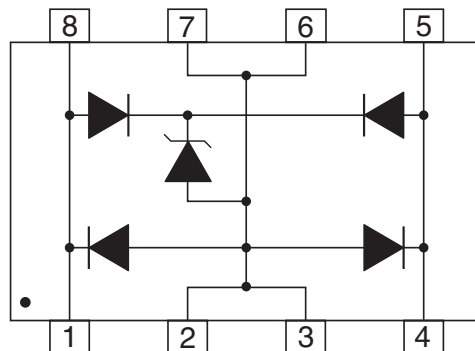
- ✓ 2000 Watts Peak Power per Line (tp = 8/20 $\mu$ s)
- ✓ Protects Two (2) Lines
- ✓ 100A (2/10 $\mu$ s) per Bellcore GR-1089(Intra-Building)
- ✓ ESD Protection > 25 kilovolts
- ✓ Low Capacitance: < 20pF
- ✓ RoHS Compliant

## MECHANICAL CHARACTERISTICS

- ✓ Molded JEDEC SO-8
- ✓ Weight 70 milligrams (Approximate)
- ✓ Available in Lead-Free Pure-Tin Plating(Annealed)
- ✓ Solder Reflow Temperature:  
Pure-Tin - Sn, 100: 260-270°C
- ✓ Consult Factory for Leaded Device Availability
- ✓ Flammability Rating UL 94V-0
- ✓ 12mm Tape and Reel Per EIA Standard 481
- ✓ Marking: Logo, Marking Code, Date Code & Pin One Defined by Dot on Top of Package



## PIN CONFIGURATION



## DEVICE CHARACTERISTICS

### MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (tp = 8/20μs) - See Figure 1	$P_{PP}$	2000	Watts
Operating Temperature	$T_L$	-55 to 150	°C
Storage Temperature	$T_{STG}$	-55 to 150	°C

### ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified

PART NUMBER	DEVICE MARKING CODE	RATED STAND-OFF VOLTAGE  $V_{WM}$ VOLTS	MINIMUM BREAKDOWN VOLTAGE  @ 1mA $V_{(BR)}$ VOLTS	MAXIMUM CLAMPING VOLTAGE (See Notes 1-2) (See Fig. 2) 8/20μs $V_C @ I_{PP}$ VOLTS	MAXIMUM LEAKAGE CURRENT  @ $V_{WM}$ $I_b$ μA	TYPICAL CAPACITANCE (See Note 3)  @0V, 1 MHz $C_{J(SD)}$ pF	TYPICAL CAPACITANCE (See Note 4)  @0V, 1 MHz $C_{J(SD)}$ pF
PLC03-6	PBA	6.0	6.8	20.0V @ 100.0A	25	16	8

**Note 1:** For an 8/20μs waveform, apply positive pulse to pin 1 to 8 to pin 2 or 3 (ground).

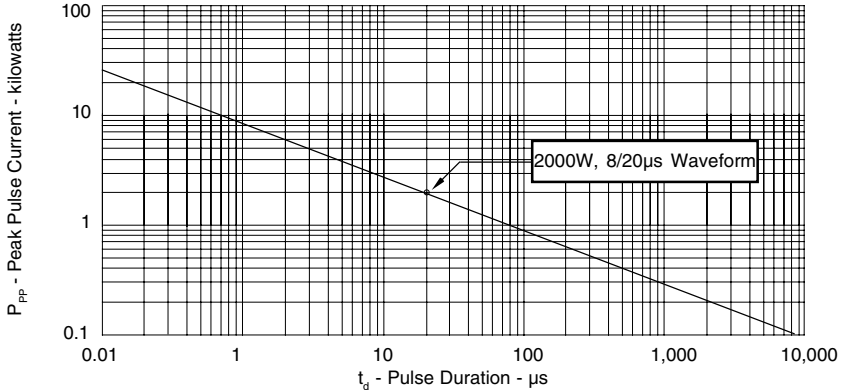
**Note 2:** Measured between pin 1 or 8 to pin 2 or 3; pin 1 or 8 to pin 4 or 5.

**Note 3:** Measured between I/O pins and ground (pin 1 to 2).

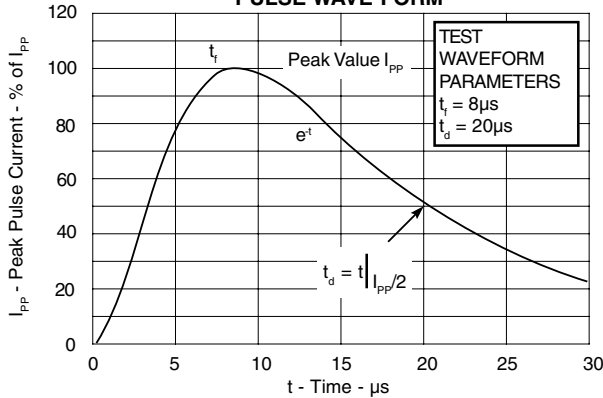
**Note 4:** Measured between I/O pins (pins 1 to 4).

## GRAPHS

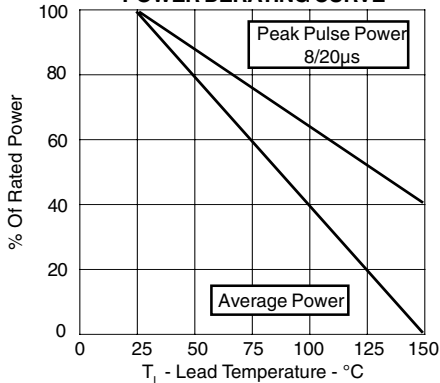
**FIGURE 1**  
**PEAK PULSE POWER VS PULSE TIME**



**FIGURE 2**  
**PULSE WAVE FORM**

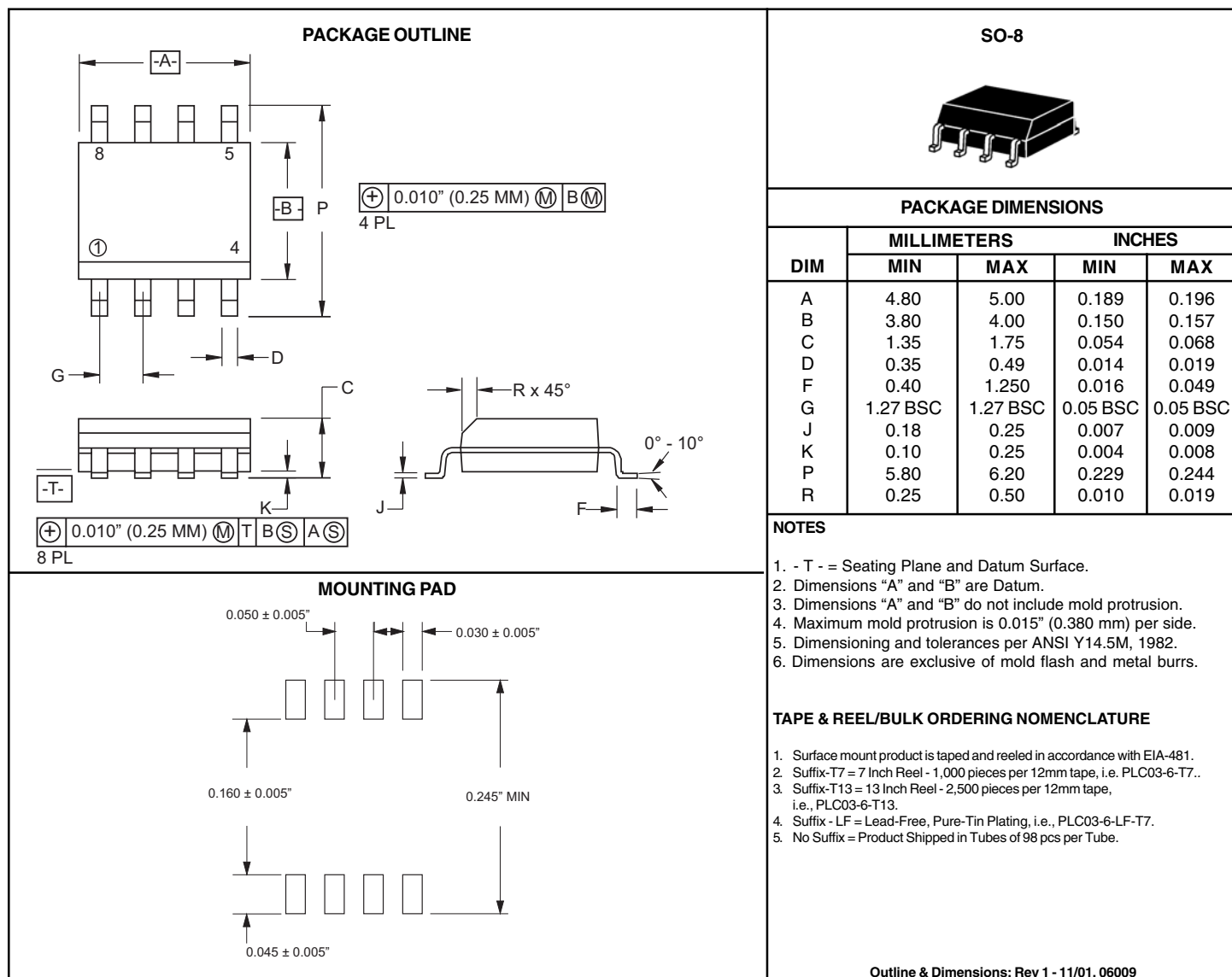


**FIGURE 3**  
**POWER DERATING CURVE**



# PLC03-6

## SO-8 PACKAGE OUTLINE & DIMENSIONS



**COPYRIGHT © ProTek Devices 2007**

SPECIFICATIONS: ProTek reserves the right to change the electrical and or mechanical characteristics described herein without notice (except JEDEC).

DESIGN CHANGES: ProTek reserves the right to discontinue product lines without notice, and that the final judgement concerning selection and specifications is the buyer's and that in furnishing engineering and technical assistance, ProTek assumes no responsibility with respect to the selection or specifications of such products.

**ProTek Devices**

2929 South Fair Lane, Tempe, AZ 85282

Tel: 602-431-8101 Fax: 602-431-2288

E-Mail: [sales@protekdevices.com](mailto:sales@protekdevices.com)

Web Site: [www.protekdevices.com](http://www.protekdevices.com)