

## 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

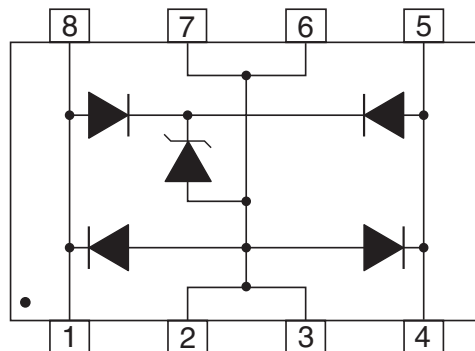
- ✓ 2000 Watts Peak Power per Line (tp = 8/20 $\mu$ s)
- ✓ Protects Two (2) Lines
- ✓ 100A (2/10 $\mu$ s) per Bellcore GR-1089(Intra-Building)
- ✓ ESD Protection > 25 kilovolts
- ✓ Low Capacitance: < 20pF
- ✓ RoHS Compliant

## 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).

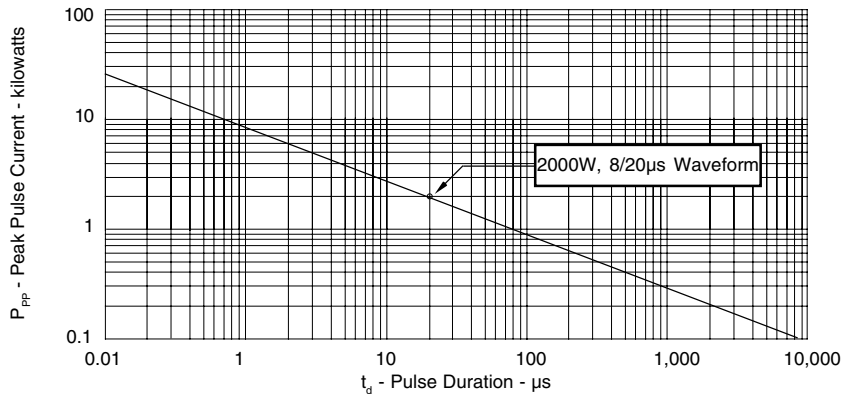
**Note 2:** Measured between pin 1 or 8 to pin 2 or 3; pin 1 or 8 to pin 4 or 5.

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

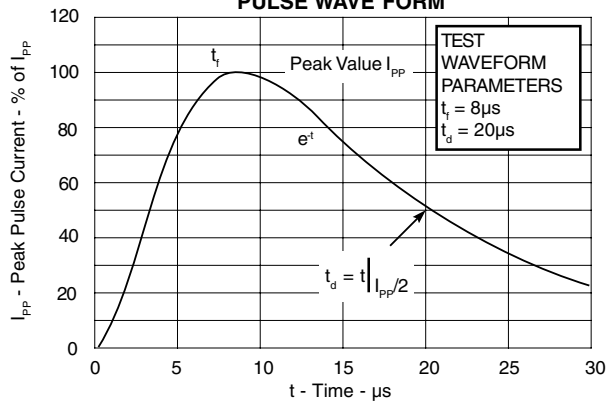
**Note 4:** Measured between I/O pins (pins 1 to 4).

## GRAPHS

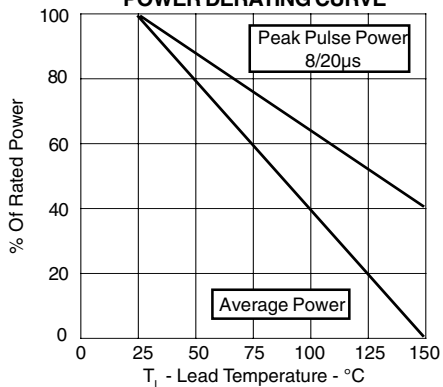
**FIGURE 1  
PEAK PULSE POWER VS PULSE TIME**



**FIGURE 2  
PULSE WAVE FORM**

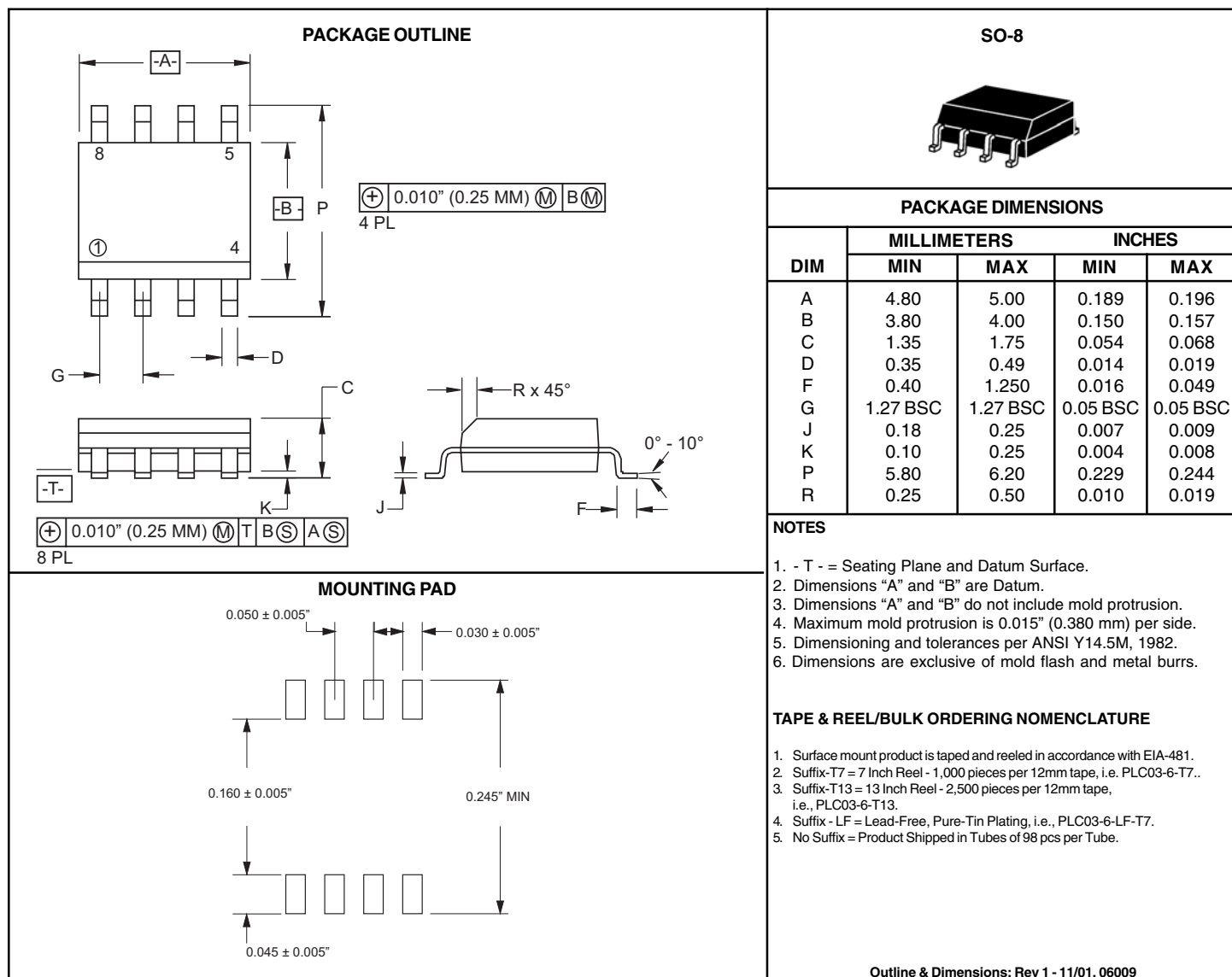


**FIGURE 3  
POWER DERATING CURVE**



# PLC03-6

## SO-8 PACKAGE OUTLINE & DIMENSIONS



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