

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)**

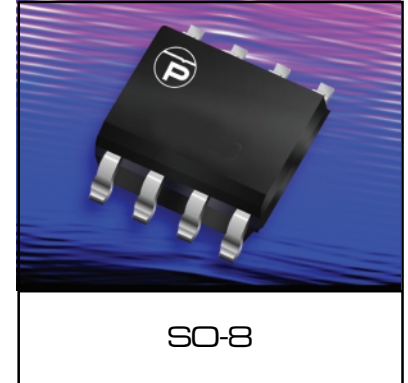
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 8/20 $\mu$ s - L4, 95A(Line-Gnd), L4, 48A(Line-Line)

**FEATURES**

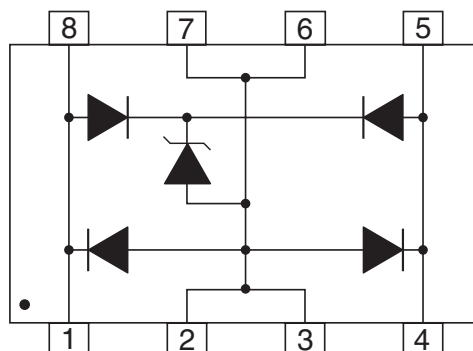
- ✓ 2000 Watts Peak Pulse Power per Line (tp=8/20 $\mu$ s)
- ✓ Protects Two (2) Lines
- ✓ 100A (2/10 $\mu$ s) per Bellcore GR-1089(Intra-Building)
- ✓ **ESD PROTECTION > 40 KILOVOLTS**
- ✓ **LOW CAPACITANCE: < 20pF**

**MECHANICAL CHARACTERISTICS**

- ✓ Molded JEDEC SO-8 Package
- ✓ Weight 15 milligrams (Approximate)
- ✓ 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 ( $t_p = 8/20\mu s$ ) - See Figure 1 | $P_{PP}$  | 2000           | Watts |
| Operating Temperature                                 | $T_J$     | -55°C to 150°C | °C    |
| Storage Temperature                                   | $T_{STG}$ | -55°C to 150°C | °C    |

| ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified |                     |                         |                              |   |                                |                                     |                                     |
|---|---------------------|-------------------------|------------------------------|---|--------------------------------|-------------------------------------|-------------------------------------|
| PART NUMBER   | DEVICE MARKING CODE | RATED STAND-OFF VOLTAGE | MINIMUM BREAKDOWN VOLTAGE    | MAXIMUM CLAMPING VOLTAGE<br>(See Notes 1-2)<br>(See Fig. 2) | MAXIMUM LEAKAGE CURRENT        | TYPICAL CAPACITANCE<br>(See Note 3) | MAXIMUM CAPACITANCE<br>(See Note 4) |
|   |                     | $V_{WM}$<br>VOLTS       | @ 1mA<br>$V_{(BR)}$<br>VOLTS | @ 8/20 $\mu s$<br>$V_C @ I_{PP}$                            | @ $V_{WM}$<br>$I_D$<br>$\mu A$ | @ 0V, 1 MHz<br>$C_{j(SD)}$<br>pF    | @ 0V, 1 MHz<br>$C_{j(SD)}$<br>pF    |
| PLC03-6   | PBA                 | 6.0                     | 6.8                          | 20.0V @ 100.0A  | 25                             | 16                                  | 8                                   |

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

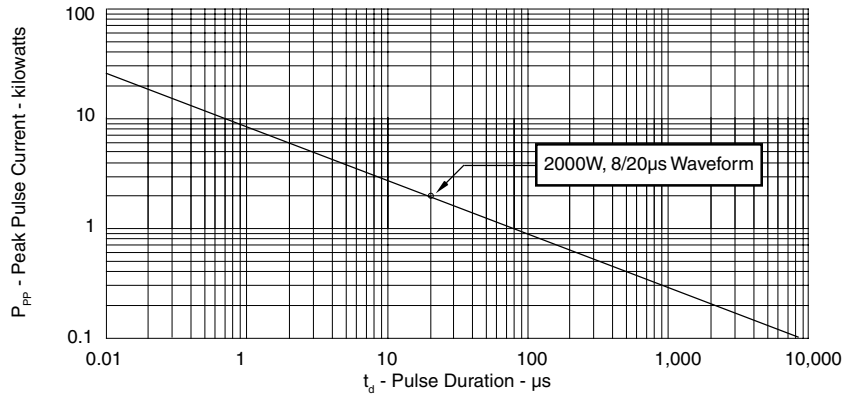
**Note 2:** Measured between pin 1 or 8 to pin 2 or 3; pin 1 or 8 to pin 4 or 5.

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

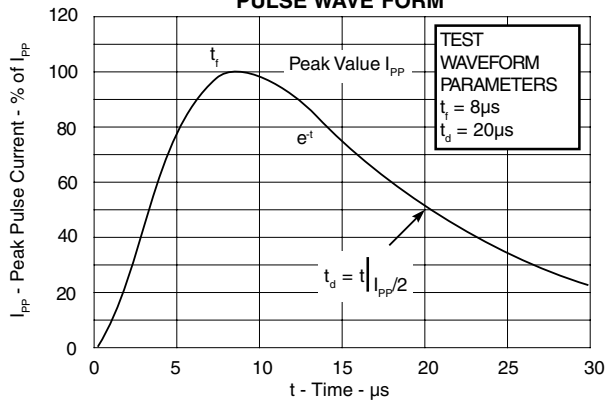
**Note 4:** Measured between I/O pins (pins 1 to 4).

GRAPHS

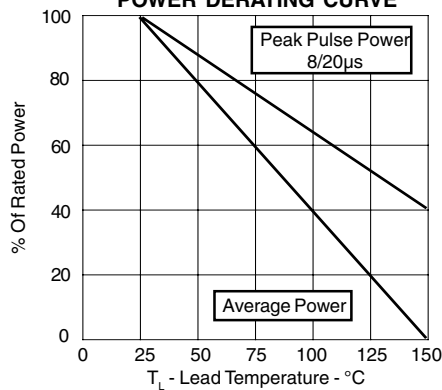
**FIGURE 1  
PEAK PULSE POWER VS PULSE TIME**



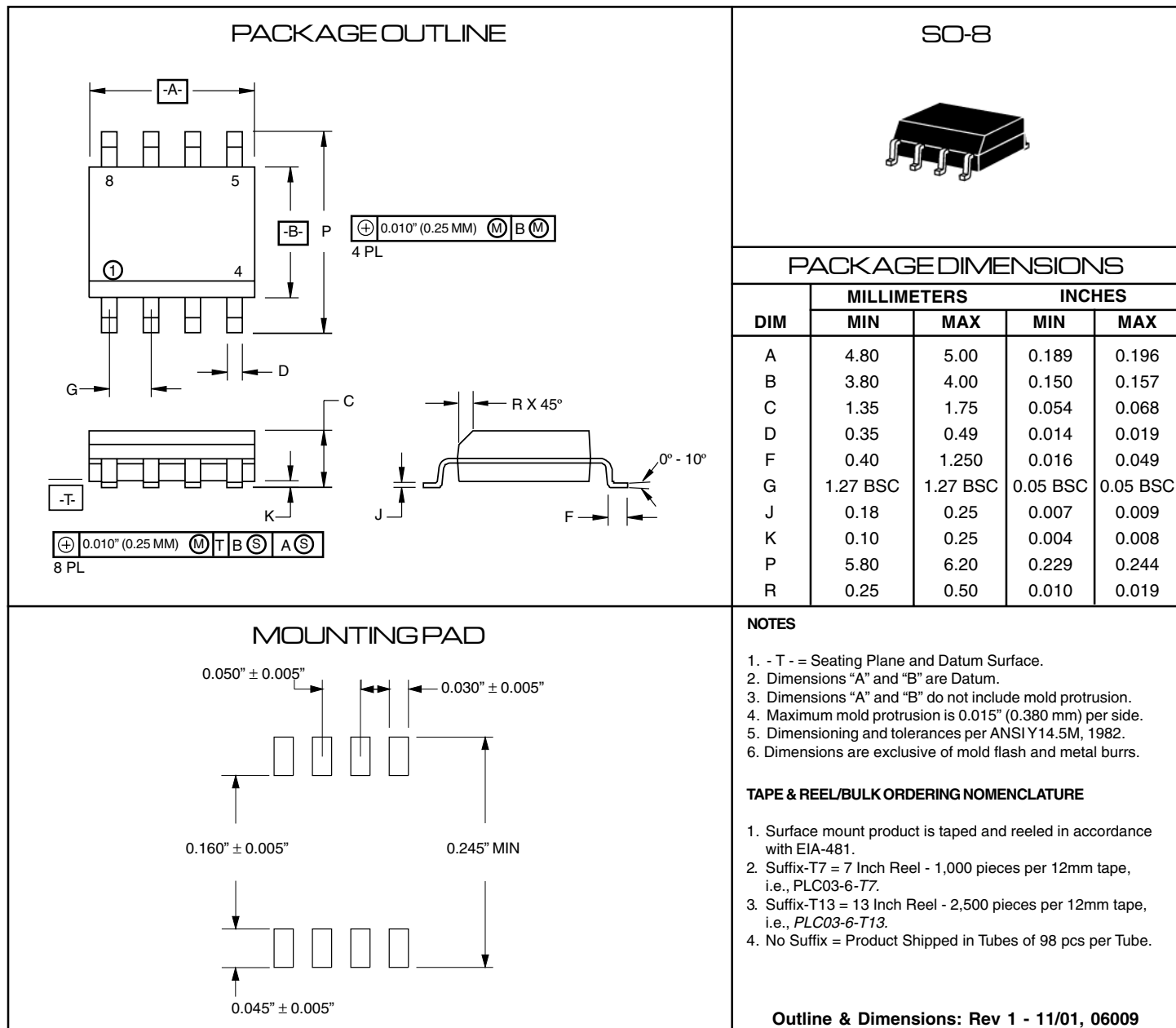
**FIGURE 2  
PULSE WAVE FORM**



**FIGURE 3  
POWER DERATING CURVE**



## PACKAGE OUTLINE & DIMENSIONS



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