

**HIGH POWER/ HIGH-SPEED TVS ARRAY****APPLICATIONS**

- ✓ T1/E1 Line Cards
- ✓ ISDN Telecom Equipment
- ✓ xDSL, USB, SCSI & Ethernet Interfaces
- ✓ Cellular Base Stations
- ✓ Data & Bus Lines for FCC Part 68 Applications

**IEC COMPATIBILITY (EN61000-4)**

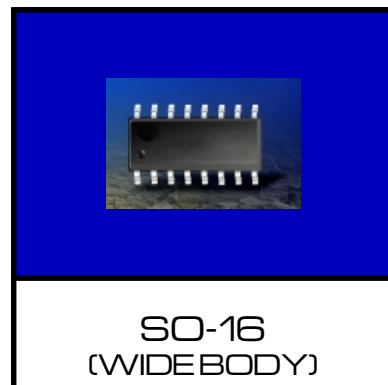
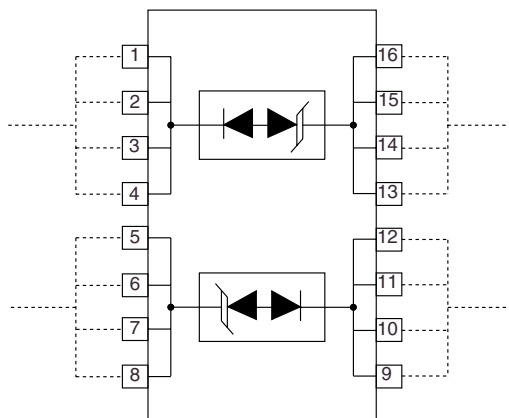
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 48A, 8/20 $\mu$ s - L3(Line-Gnd), L1(Power) & L4(Line-Line)

**FEATURES**

- ✓ **ESD PROTECTION > 40 kilovolts**
- ✓ 1,500 Watts Peak Pulse Power per Line ( $t_p=10/1000\mu$ s)
- ✓ Low Clamping Voltage
- ✓ 100A (10/1000 $\mu$ s) per Bellcore 1089(Intra-Building)
- ✓ 200A (10/160 $\mu$ s) per FCC Part 68

**MECHANICAL CHARACTERISTICS**

- ✓ Molded JEDEC SO-16 (Wide Body)
- ✓ Weight 0.15 grams (Approximate)
- ✓ Flammability Rating UL 94V-0
- ✓ 16mm Tape and Reel Per EIA Standard 481
- ✓ Device Marking: Part Number/Marking Code, Date Code & Logo
- ✓ Pin One Defined By DOT on Top of Package

**CIRCUIT DIAGRAM**

## DEVICE CHARACTERISTICS

| MAXIMUM RATINGS @ 25°C Unless Otherwise Specified |           |                |       |
|---------------------------------------------------|-----------|----------------|-------|
| PARAMETER                                         | SYMBOL    | VALUE          | UNITS |
| Peak Pulse Power (td = 10/1000µs) - See Figure 1  | $P_{PP}$  | 1,500          | 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<br>NUMBER<br>(See Note 1)                                        | RATED<br>STAND-OFF<br>VOLTAGE<br><br>$V_{WM}$<br>VOLTS | MINIMUM<br>BREAKDOWN<br>VOLTAGE<br><br>@ 1mA<br>$V_{(BR)}$<br>VOLTS | MAXIMUM<br>CLAMPING<br>VOLTAGE<br>(See Note 2)<br><br>@ $I_P = 100A$<br>$V_C$<br>VOLTS | MAXIMUM<br>CLAMPING<br>VOLTAGE<br>(See Note 3)<br><br>@ $I_P = 200A$<br>$V_C$ | MAXIMUM<br>LEAKAGE<br>CURRENT<br><br>@ $V_{WM}$<br>$I_D$<br>µA | TYPICAL<br>CAPACITANCE<br><br>0V @ 1 MHz<br>C<br>pF |
| PLC01-6                                                               | 6.0                                                    | 8.0                                                                 | 15.0                                                                                   | 16.0                                                                          | 25                                                             | 50                                                  |

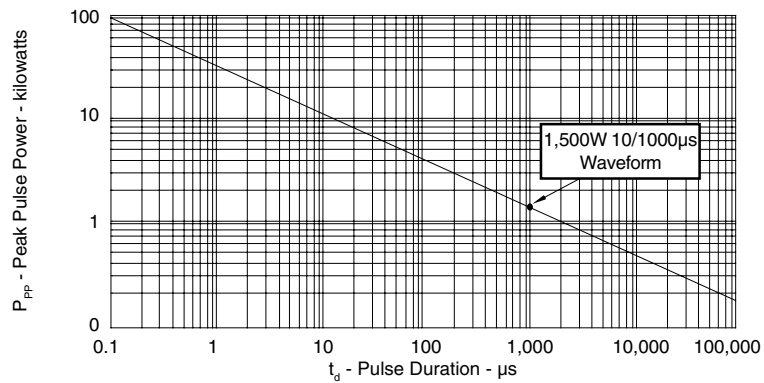
**Note 1:** Electrical characteristics apply from pins 13-16 to 1-4 and 5-8 to 9-12; see circuit diagram.

**Note 2:**  $V_C$  tested at 10/1000µs impulse waveform.

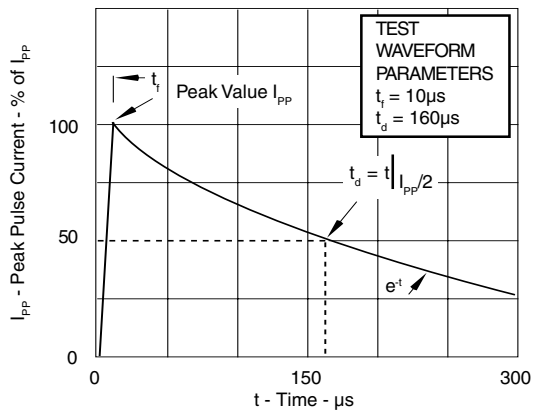
**Note 3:** 10/160µs impulse waveform per FCC Part 68.

## GRAPHS

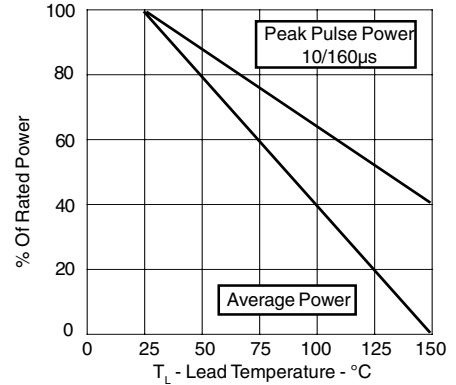
**FIGURE 1  
PEAK PULSE POWER VS PULSE TIME**



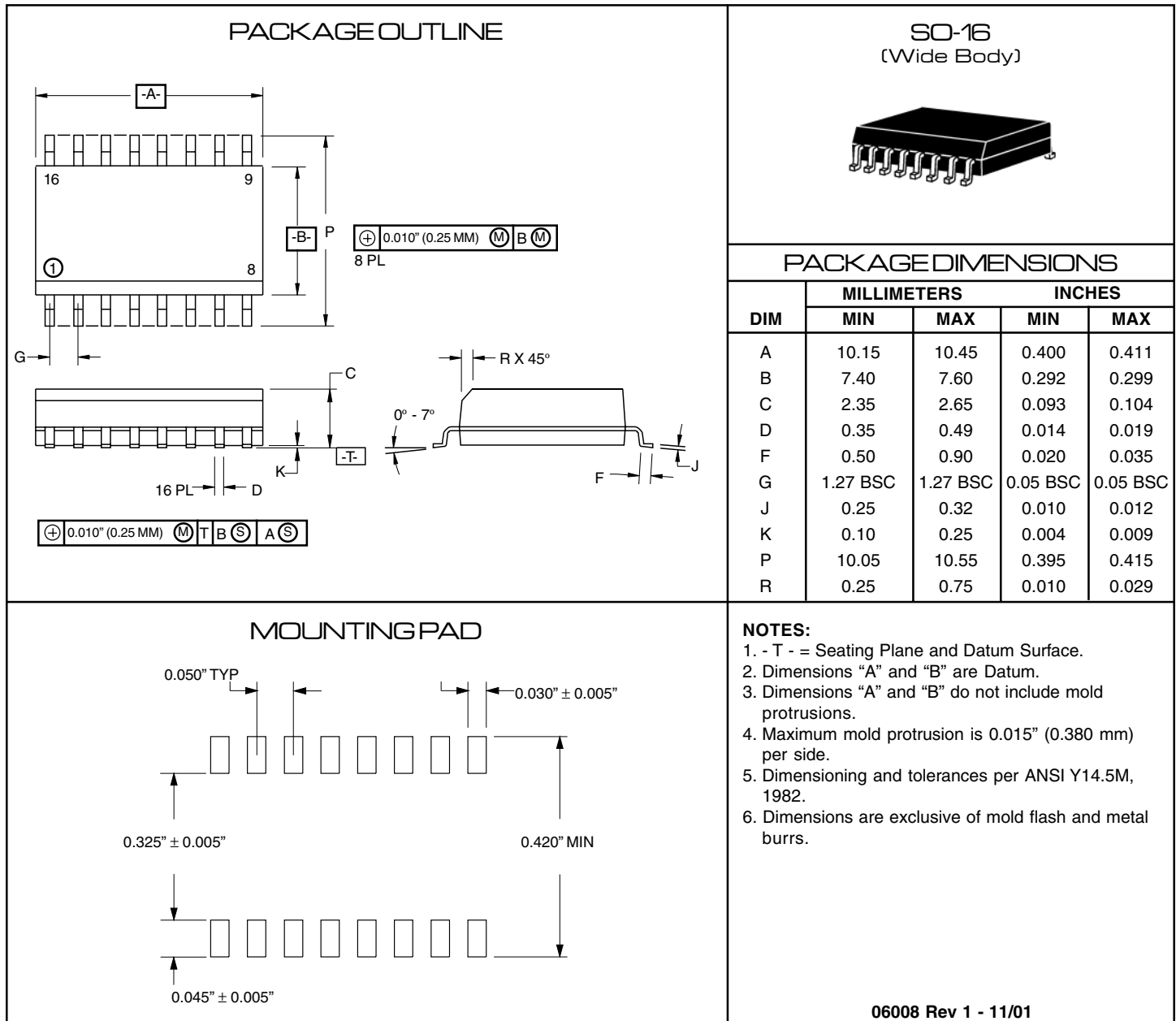
**FIGURE 2  
PULSE WAVE FORM**



**FIGURE 3  
POWER DERATING CURVE**



## PACKAGE OUTLINE & DIMENSIONS



### PART NUMBER SUFFIXES USED FOR TAPE & REEL/BULK ORDERING:

Surface mount product is taped and reeled in accordance with EIA-481.

Suffix-T13 = 13 Inch Reel - 1,000 pieces per reel i.e: PLC01-6 -T13

No Suffix = Product Shipped in Tubes of 46 pcs per Tube

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