

TELECOM DIODE BRIDGE/ TVS ARRAY

APPLICATIONS

- ✓ T1/E1 & T3/E3 Line Cards
- ✓ ISDN U-Interfaces & ISDN S/T Interfaces
- ✓ xDSL Interfaces
- ✓ Ethernet - 10/1000 Base T

IEC COMPATIBILITY (EN61000-4)

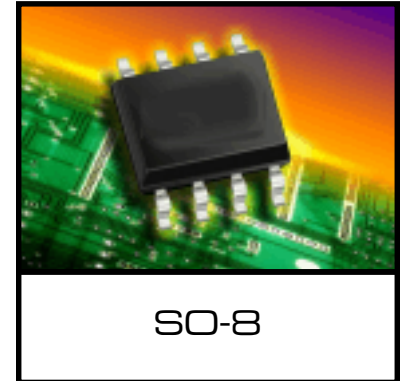
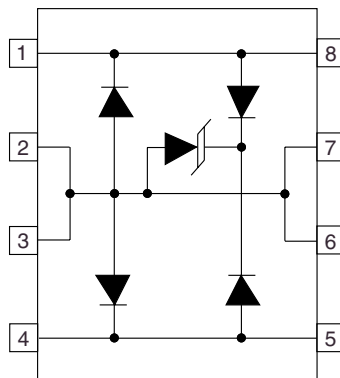
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 8/20 μ s - L4, 95A(Line-Gnd), L1, 48A(Power) & L4, 48A(Line-Line)

FEATURES

- ✓ **ESD PROTECTION > 40 kilovolts**
- ✓ 2000 Watts Peak Pulse Power per Line ($t_p=8/20\mu$ s)
- ✓ Low Capacitance - 18pF
- ✓ 100A (2/10 μ s) per Bellcore 1089(Intra-Building)

MECHANICAL CHARACTERISTICS

- ✓ Molded JEDEC SO-8
- ✓ Weight 0.1 grams (Approximate)
- ✓ Flammability Rating UL 94V-0
- ✓ 12mm Tape and Reel Per EIA Standard 481
- ✓ Marking: Logo, Marking Code, Date Code & Pin Number 1 Indicated By DOT on Top of Package

**CIRCUIT DIAGRAM**

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 (Note 1 & 2) (See Fig. 2)	MAXIMUM LEAKAGE CURRENT	TYPICAL CAPACITANCE (See Note 3)	MAXIMUM CAPACITANCE (See Note 4)
		V_{WM} VOLTS	@ 1mA $V_{(BR)}$ VOLTS	@ 8/20 μs $V_C @ I_{PP}$	@ V_{WM} I_D μA	0V @ 1 MHz C pF	0V @ 1 MHz C pF
PLC03-6	PBA	6.0	6.8	20.0V @ 100.0A	25	16	8

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

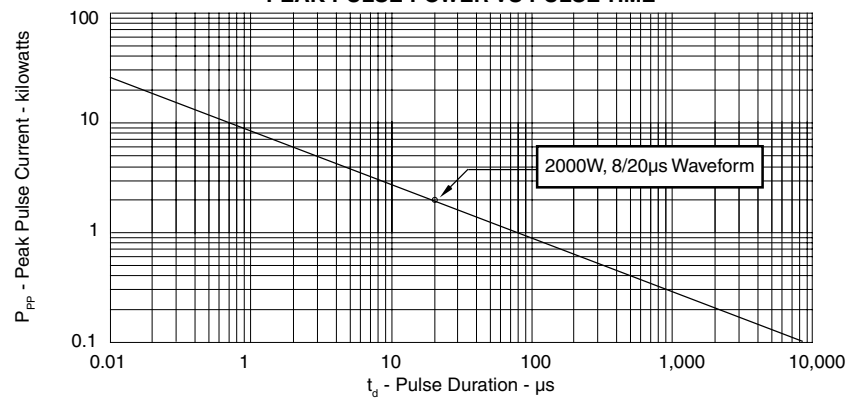
Note 2: Measured between pin 1 or 8 to pin 2 or 3; pin 1 or 8 to pin 4 or 5.

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

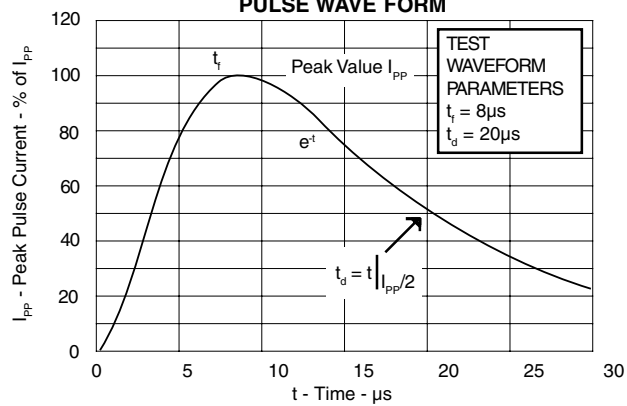
Note 4: Measured between I/O pins (pins 1 to 4).

GRAPHS

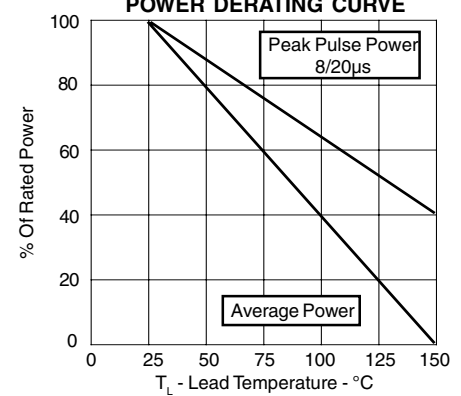
**FIGURE 1
PEAK PULSE POWER VS PULSE TIME**



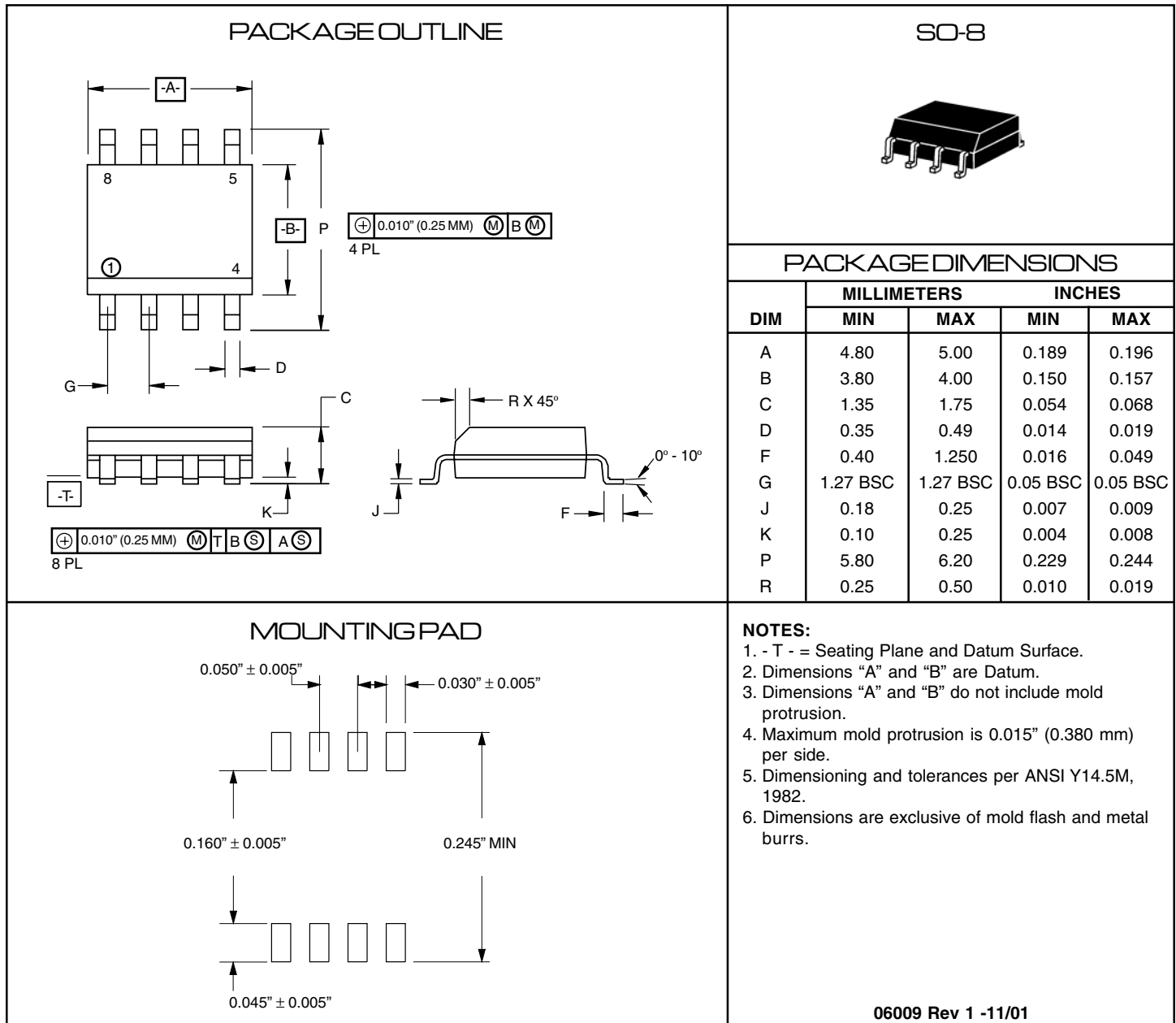
**FIGURE 2
PULSE WAVE FORM**



**FIGURE 3
POWER DERATING CURVE**



PACKAGE OUTLINE & DIMENSIONS



TAPE & REEL ORDERING INFORMATION:

Surface mount product is taped and reeled in accordance with EIA-481.
 Suffix -T7: 7 Inch Reel - 1,000 pieces per reel (i.e., PLC03-6-T7).
 Suffix -T13: 13 Inch Reel - 2,500 pieces per reel (i.e., PLC03-6-T13).
 No Suffix: Bulk Quantities - 98 pieces per tube.

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