

LOW CAPACITANCE TVS ARRAY

APPLICATIONS

- ✓ Video On-Demand
- ✓ ISDN Telecom Interface
- ✓ USB, ADSL & SCSI Interfaces
- ✓ Modems
- ✓ LAN Interconnects
- ✓ Portable Electronics

IEC COMPATIBILITY (EN61000-4)

- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 24A, 8/20 μ s - Level 2(Line-Gnd) & Level 3(Line-Line)

FEATURES

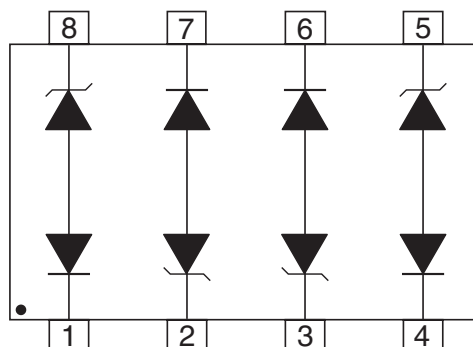
- ✓ 800 Watts Peak Pulse Power per Line ($t_p=8/20\mu$ s)
- ✓ Bidirectional Configuration
- ✓ Available in 5 Voltage Types: 5V to 24V
- ✓ Protects Up to Two Line Pairs
- ✓ ESD Protection > 40 kilovolts
- ✓ **LOW CAPACITANCE: 25pF**

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}	800	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 (See Note 1-2)	DEVICE MARKING	RATED STAND-OFF VOLTAGE V_{WM} VOLTS	MINIMUM BREAKDOWN VOLTAGE @ 1mA $V_{(BR)}$ VOLTS	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @ $I_p = 1A$ V_C VOLTS	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @ 8/20 μs $V_C @ I_{PP}$	MAXIMUM LEAKAGE CURRENT @ V_{WM} I_D μA	MAXIMUM CAPACITANCE 0V @ 1 MHz C pF
SM8LC05	PGA	5.0	6.0	9.8	24.6V @ 45A	100	25
SM8LC08	PGB	8.0	8.5	13.3	25.5V @ 40A	10	25
SM8LC12	PGC	12.0	13.3	19.0	32.9V @ 34A	4	25
SM8LC15	PGD	15.0	16.7	25.5	38.5V @ 27A	4	25
SM8LC24	PGE	24.0	26.7	40.0	48.5V @ 22A	4	25

Note 1: Devices are designed to be used in parallel (See Circuit Diagram) Page 1. For other applications, contact the factory. Do not surge in the "forward" direction of the TVS.

Note 2: Do not surge from pins 1 to 8, 7 to 2, 6 to 3 and 4 to 5. PIV typically greater than 100 volts for each rectifier diode.

GRAPHS

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

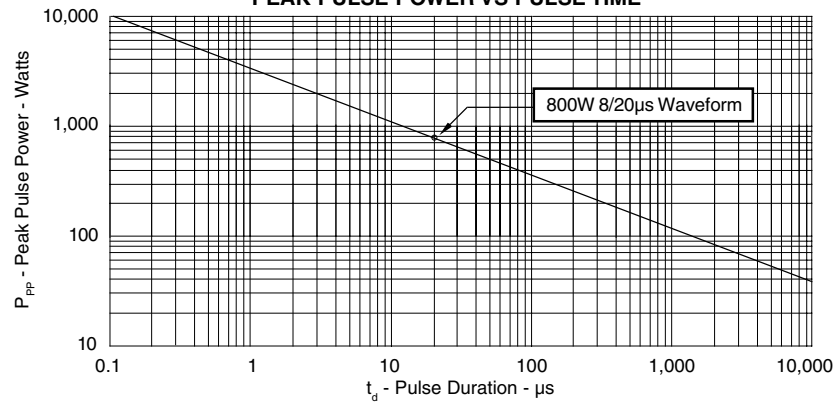


FIGURE 2
PULSE WAVE FORM

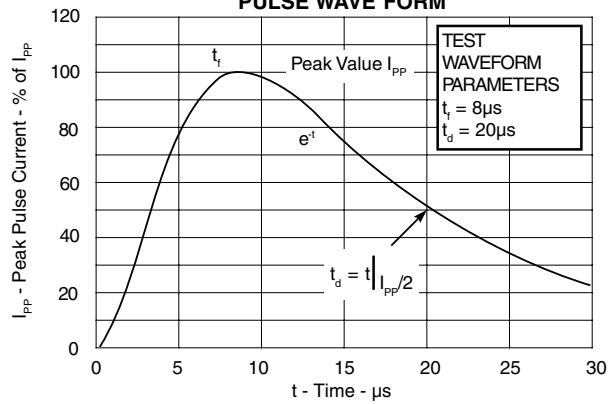
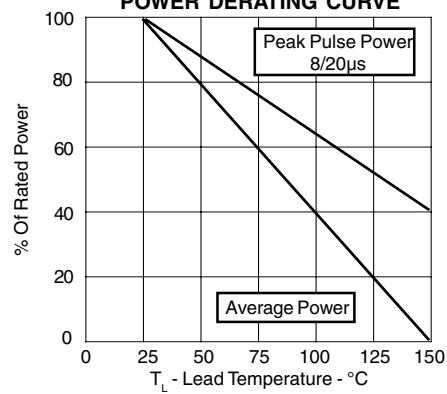
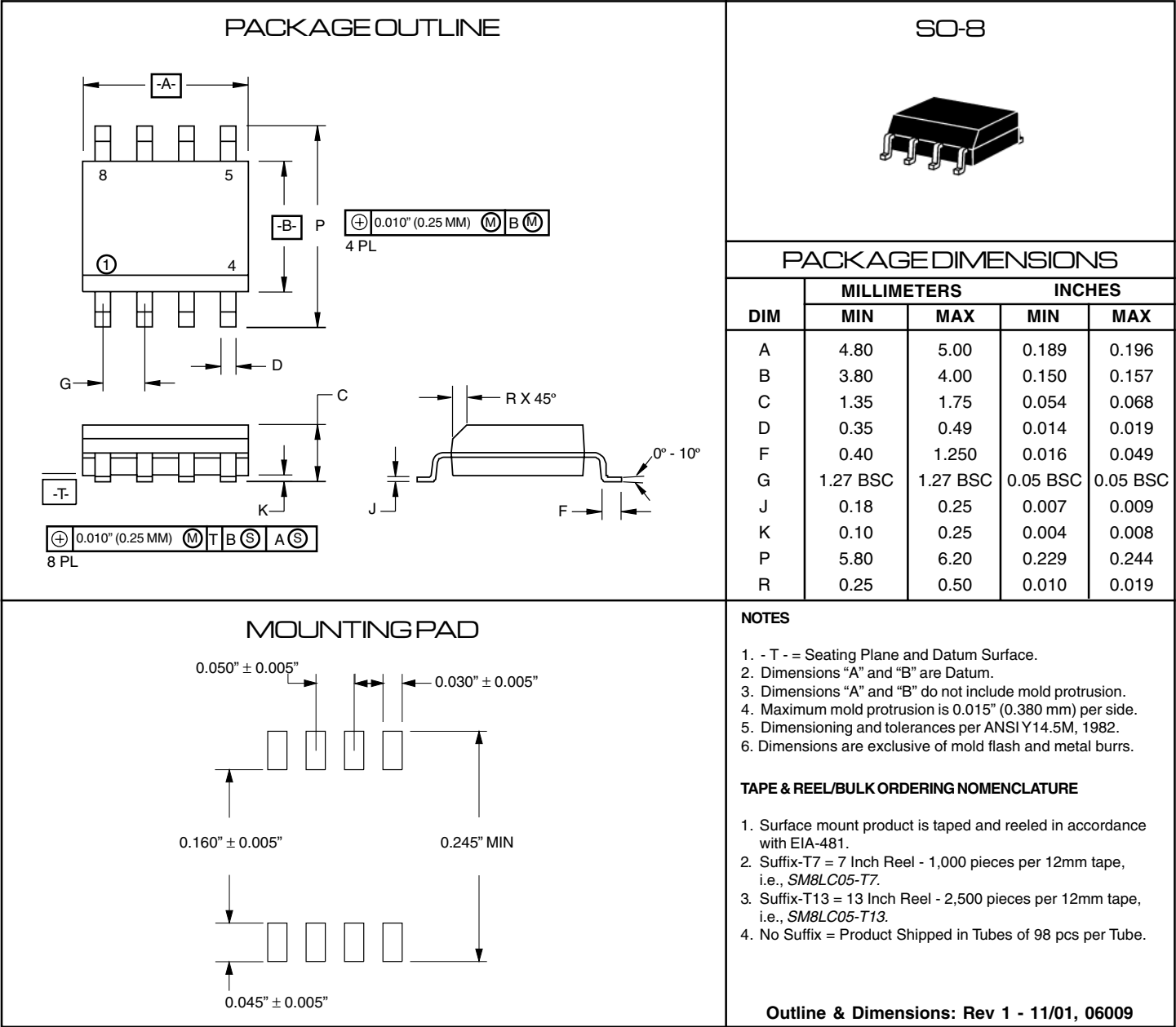


FIGURE 3
POWER DERATING CURVE



PACKAGE OUTLINE & DIMENSIONS



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