

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

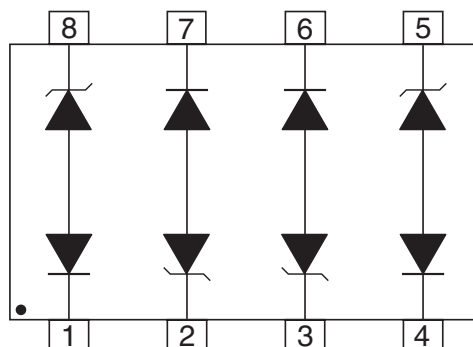
- ✓ 800 Watts Peak Pulse Power per Line ($t_p=8/20\mu$ s)
- ✓ Bidirectional Configuration
- ✓ Available in 5 Voltage Types: 5V to 24V
- ✓ Protects Up to Two Line Pairs
- ✓ ESD Protection > 40 kilovolts
- ✓ **LOW CAPACITANCE: 25pF**

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

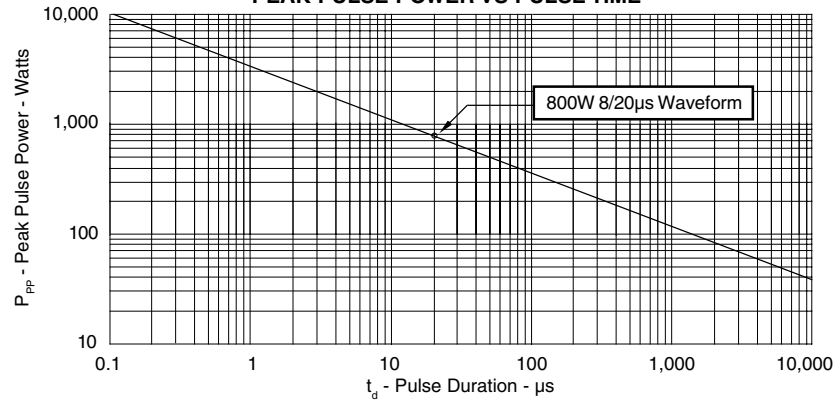


FIGURE 2
PULSE WAVE FORM

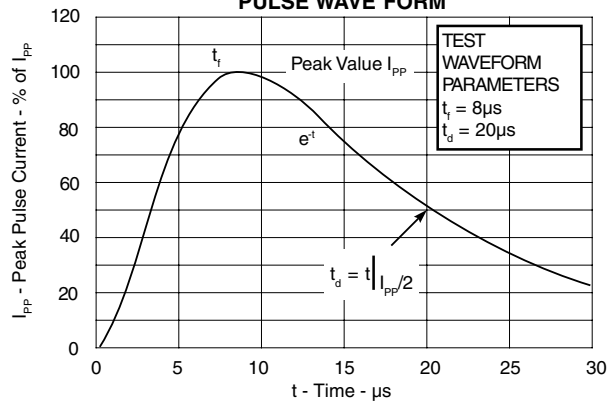
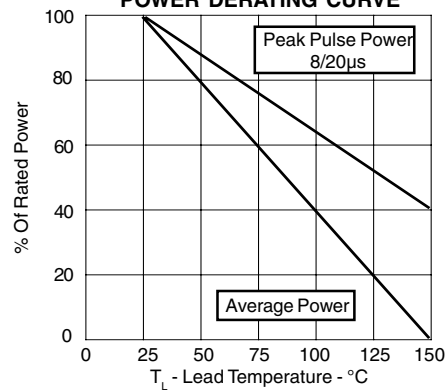
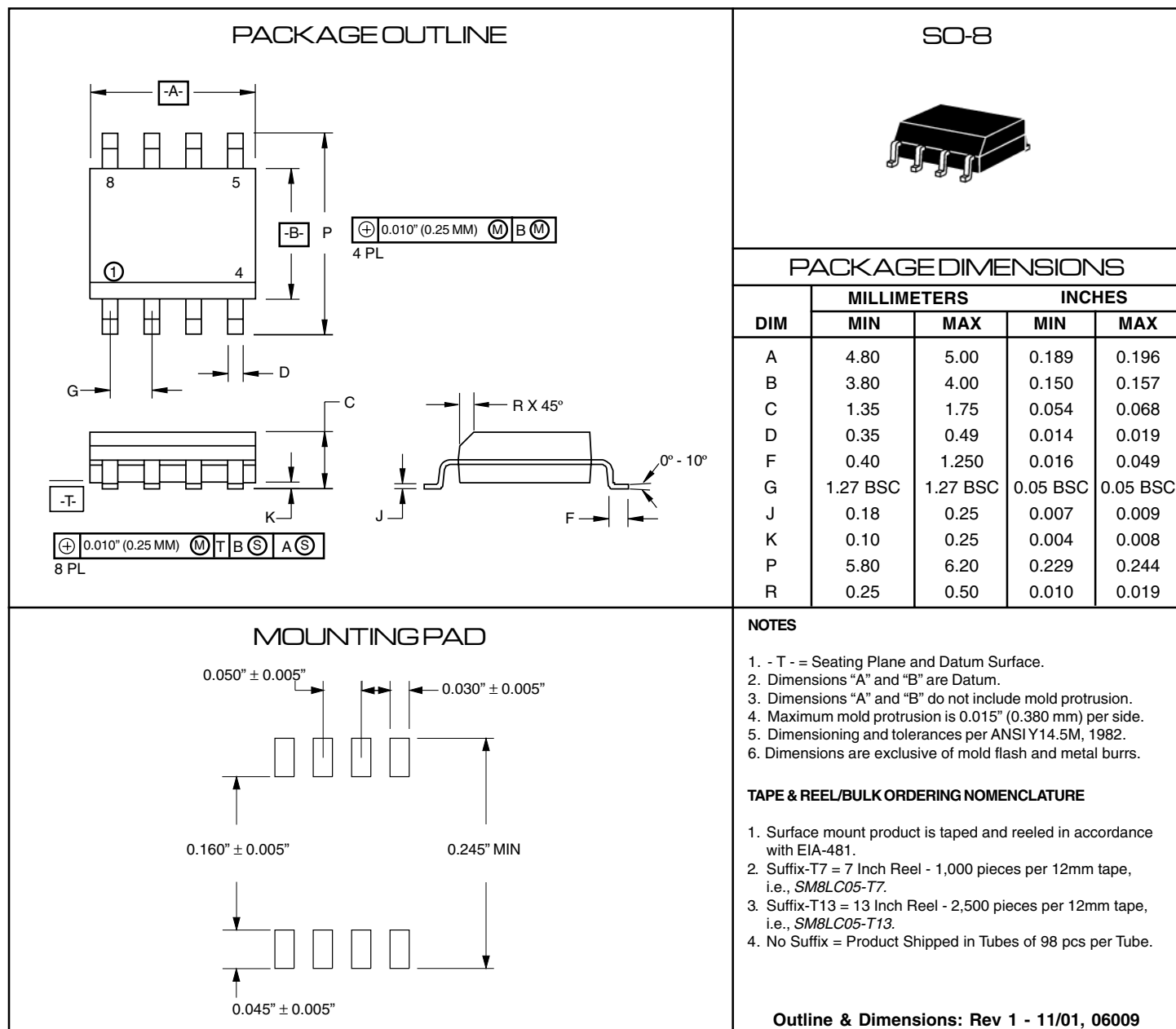


FIGURE 3
POWER DERATING CURVE



PACKAGE OUTLINE & DIMENSIONS



COPYRIGHT © ProTek Devices 2003

SPECIFICATIONS: ProTek reserves the right to change the electrical and or mechanical characteristics described herein without notice (except JEDEC).

DESIGN CHANGES: ProTek reserves the right to discontinue product lines without notice, and that the final judgement concerning selection and specifications is the buyer's and that in furnishing engineering and technical assistance, ProTek assumes no responsibility with respect to the selection or specifications of such products.

ProTek Devices

2929 South Fair Lane, Tempe, AZ 85282

Tel: 602-431-8101 Fax: 602-431-2288

E-Mail: sales@protekdevices.com

Web Site: www.protekdevices.com