

STANDARD CAPACITANCE TVS ARRAY

APPLICATIONS

- ✓ RS-232, RS-422 & RS-423
- ✓ Digital Sensor I/O Ports
- ✓ Control & Monitoring Systems
- ✓ Portable Electronics
- ✓ 12 & 33 Volt DC Protection

IEC COMPATIBILITY (EN61000-4)

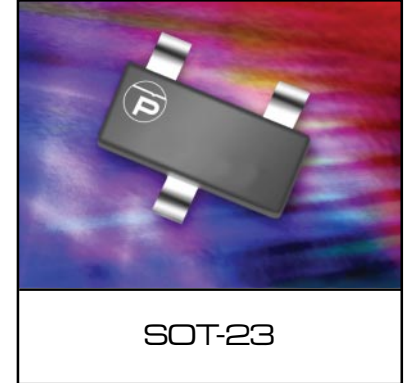
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 12A, 8/20 μ s - Level 1(Line-Ground) & Level 2(Line-Line)

FEATURES

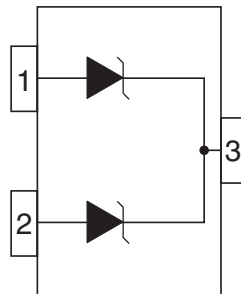
- ✓ 300 Watts Peak Pulse Power per Line ($t_p = 8/20\mu$ s)
- ✓ 200 Watts Peak Pulse Power per Line ($t_p = 1.2/50\mu$ s)
- ✓ 40 Watts Peak Pulse Power per Line ($t_p = 10/1000\mu$ s)
- ✓ ESD Protection > 40 kilovolts
- ✓ Low Clamping Voltage
- ✓ Common Cathode Configuration
- ✓ Provides Two Lines of Protection
- ✓ RoHS Compliant in Lead-Free Versions

MECHANICAL CHARACTERISTICS

- ✓ Molded JEDEC SOT-23
- ✓ Weight 8 milligrams (Approximate)
- ✓ Available in Tin-Lead or Lead-Free Pure-Tin Plating(Annealed)
- ✓ Solder Reflow Temperature:
 - Tin-Lead - Sn/Pb, 85/15: 240-245°C
 - Pure-Tin - Sn, 100: 260-270°C
- ✓ Flammability rating UL 94V-0
- ✓ 8mm Tape and Reel Per EIA Standard 481
- ✓ Device Marking: Marking Code



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}	300	Watts
Peak Pulse Power ($t_p = 1.2/50\mu s$) - See Figure 1	P_{PP}	200	Watts
Peak Pulse Power ($t_p = 10/100\mu s$) - See Figure 1	P_{PP}	40	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)	DEVICE MARKING CODE	RATED STAND-OFF VOLTAGE V_{WM} VOLTS	MINIMUM BREAKDOWN VOLTAGE @ 1mA $V_{(BR)}$ VOLTS	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @ $I_p = 1.9A$ V_C VOLTS	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @ 8/20 μs $V_C @ I_{PP}$	MAXIMUM LEAKAGE CURRENT @ V_{WM} I_D μA	TYPICAL CAPACITANCE @ 0V, 1 MHz C_J pF
PSOT15KCA	PKA	12.8	14.3	21.2	33V @ 9A	0.1	120
PSOT36KCA	PKB	33.0	36.0	45.0	66V @ 6A	0.1	45

Note 1: For Unidirectional test only pins 1-3 and 2-3.

GRAPHS

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

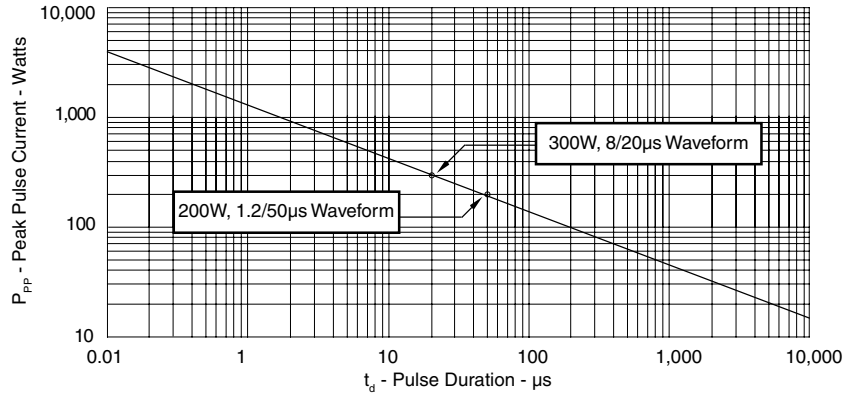


FIGURE 2
PULSE WAVE FORM

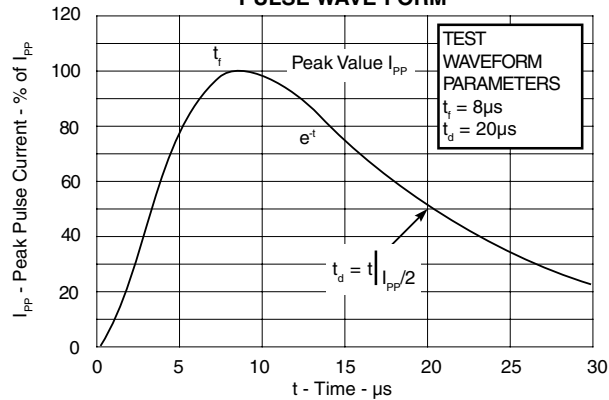
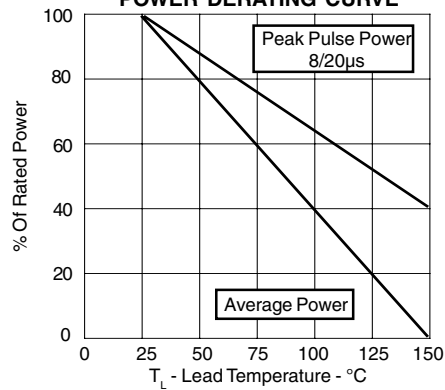
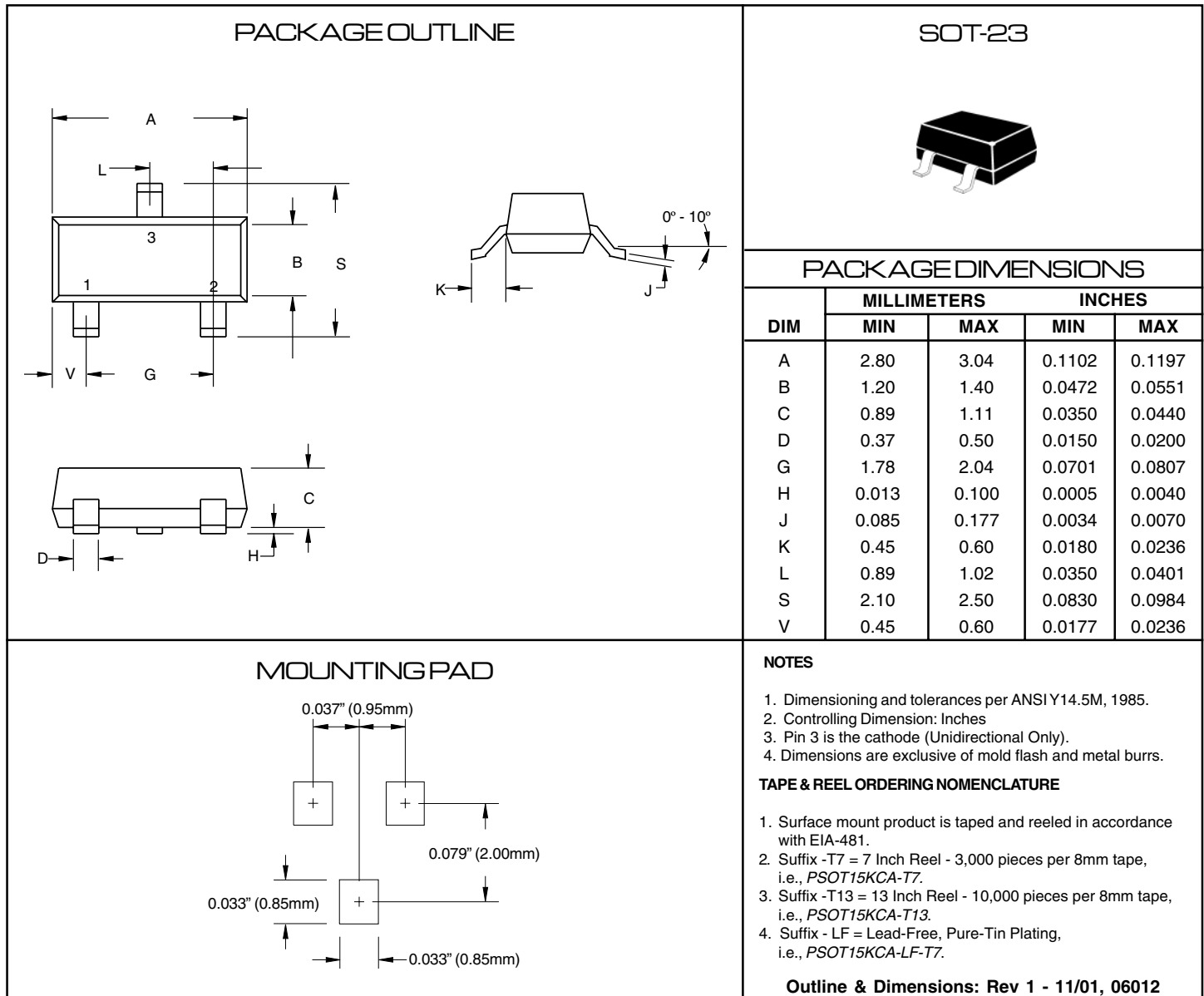


FIGURE 3
POWER DERATING CURVE



PACKAGE OUTLINE & DIMENSIONS



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