

STANDARD CAPACITANCE TVS ARRAY

APPLICATIONS

- ✓ RS-232, RS-422 & RS-423
- ✓ Cellular Phones
- ✓ Control & Monitoring Systems
- ✓ Portable Electronics
- ✓ Wireless Bus Protection

IEC COMPATIBILITY (EN61000-4)

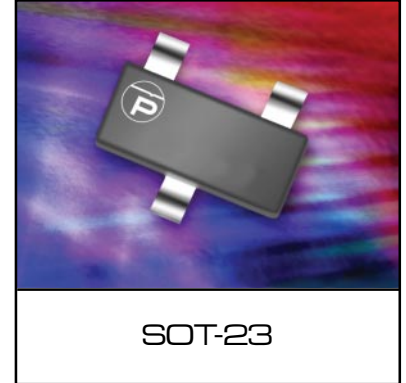
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 24A, 8/20μs - Level 2(Line-Ground) & Level 3(Line-Line)

FEATURES

- ✓ ESD Protection > 40 kilovolts
- ✓ 500 Watts Peak Pulse Power per Line (tp = 8/20μs)
- ✓ Low Clamping Voltage
- ✓ Available in Multiple Voltage Types Ranging from 3V to 36V
- ✓ Unidirectional & Bidirectional Configurations
- ✓ RoHS Compliant in Lead-Free Versions

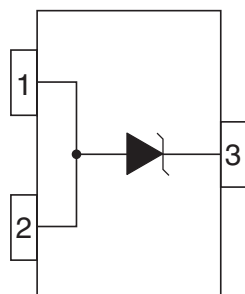
MECHANICAL CHARACTERISTICS

- ✓ Molded JEDEC SOT-23
- ✓ Weight 8mg (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

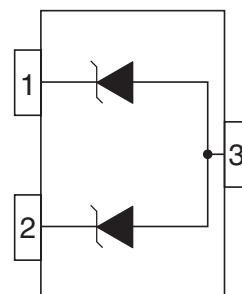


PIN CONFIGURATION

UNIDIRECTIONAL



BIDIRECTIONAL



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}	500	Watts
Operating Temperature	T_J	-55°C to 150°C	°C
Storage Temperature	T_{STG}	-55°C to 150°C	°C
Forward Voltage @ 100mA, 300μs - Square Wave (Note 1)	V_F	1.5	Volts

Note 1: Applies to unidirectional devices only.

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified							
PART NUMBER (See Note 1)	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) @ 8/20μs V_C @ I_{PP}	MAXIMUM LEAKAGE CURRENT @ V_{WM} I_D μA	TYPICAL CAPACITANCE @ 0V, 1 MHz C pF
PSOT03	03	3.3	4.0	6.5	10.9V @ 43.0A	125	500
PSOT03C	03C	3.3	4.0	7.0	10.9V @ 43.0A	125	300
PSOT05	05	5.0	6.0	9.8	13.5V @ 42.0A	20	350
PSOT05C	05C	5.0	6.0	9.8	13.5V @ 42.0A	20	210
PSOT08	08	8.0	8.5	13.4	16.9V @ 34.0A	10	250
PSOT08C	08C	8.0	8.5	13.4	16.9V @ 34.0A	10	150
PSOT12	12	12.0	13.3	19.0	25.9V @ 21.0A	2	150
PSOT12C	12C	12.0	13.3	19.0	25.9V @ 21.0A	2	90
PSOT15	15	15.0	16.7	24.0	30.0V @ 17.0A	1	100
PSOT15C	15C	15.0	16.7	24.0	30.0V @ 17.0A	1	60
PSOT24	24	24.0	26.7	43.0	49.0V @ 12.0A	1	88
PSOT24C	24C	24.0	26.7	43.0	49.0V @ 12.0A	1	63
PSOT36	36	36.0	40.0	51.0	76.8V @ 9.0A	1	80
PSOT36C	36C	36.0	40.0	51.0	76.8V @ 9.0A	1	60

Note 1: Part numbers with an additional "C" suffix are bidirectional devices, i.e., PSOT05C.

GRAPHS

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

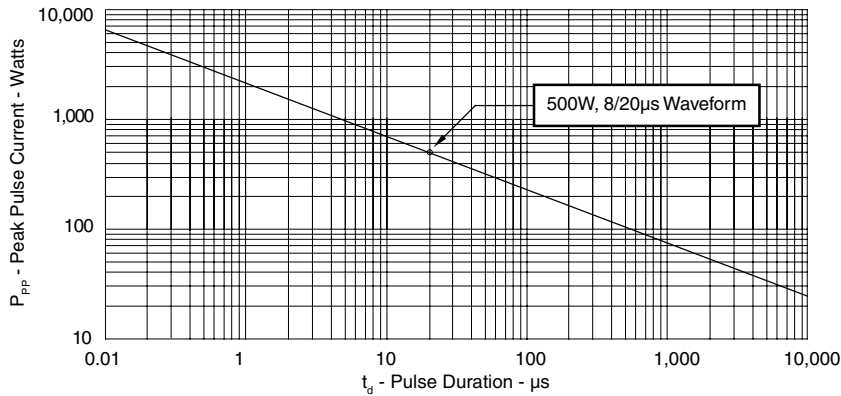


FIGURE 2
PULSE WAVE FORM

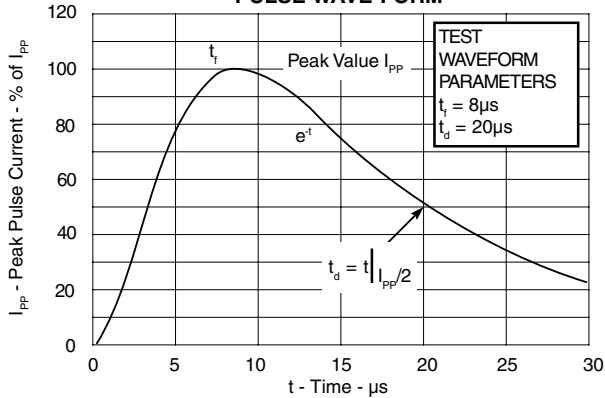
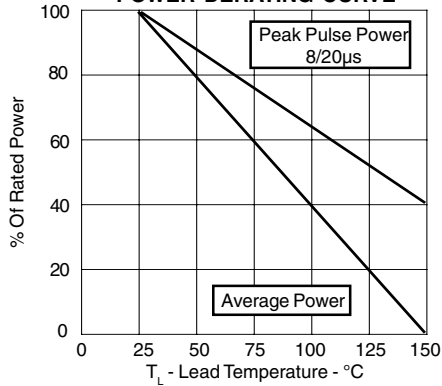
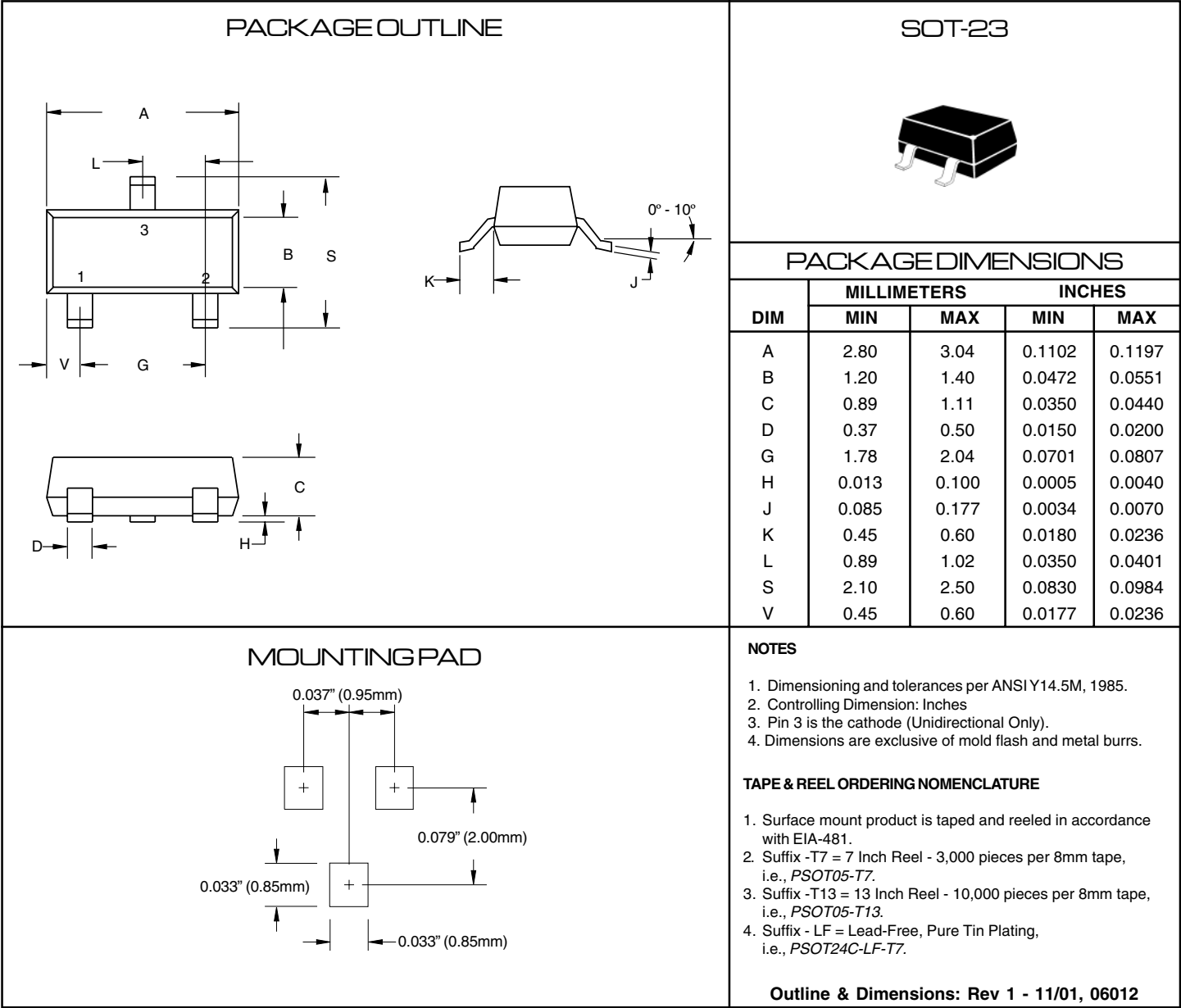


FIGURE 3
POWER DERATING CURVE



PACKAGE OUTLINE & DIMENSIONS



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