

LOW CAPACITANCE TVS ARRAY

APPLICATIONS

- ✓ Ethernet - 10/100 Base T
- ✓ USB Ports
- ✓ Cellular Phones
- ✓ Audio/Video Inputs
- ✓ Personal Digital Assistant (PDA)
- ✓ E1/T1 & E3/T3

IEC COMPATIBILITY (EN61000-4)

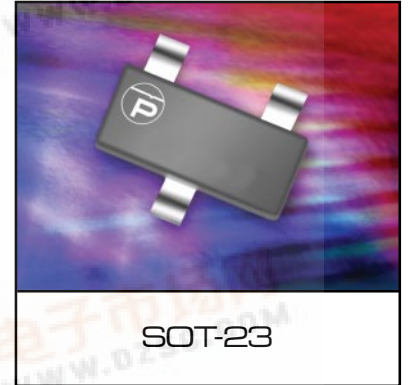
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns

FEATURES

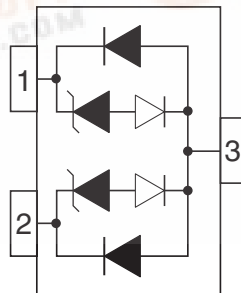
- ✓ ESD Protection > 25 kilovolts
- ✓ 175 Watts Peak Pulse Power per Line (tp = 8/20µs)
- ✓ Protects Two (2) Unidirectional Lines
- ✓ Unidirectional Configuration
- ✓ Low Leakage Current < 2.0µA
- ✓ **LOW CAPACITANCE: 15pF PER DIODE**
- ✓ RoHS Compliant on Lead-Free Versions

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}	175	Watts
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{PP}	5	A
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	MINIMUM SNAP BACK VOLTAGE @ $I_{SB} = 50mA$ V_{SB} VOLTS	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @ $I_p = 1A$ V_C VOLTS	MAXIMUM LEAKAGE CURRENT @ V_{WM} I_b μA	TYPICAL CAPACITANCE @ 0V, 1MHz C pF
ESOT3.3LC-2	E3	3.3	3.5	3.3	6.5	2	15

Note 1: Test between pins 2 to 3, and 1 to 3.

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

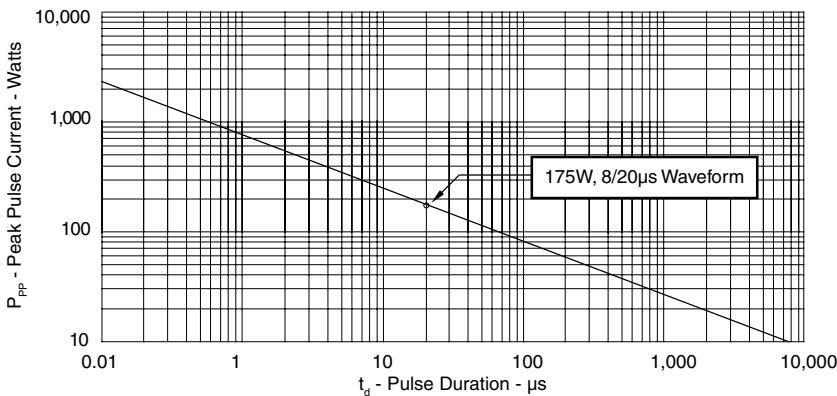
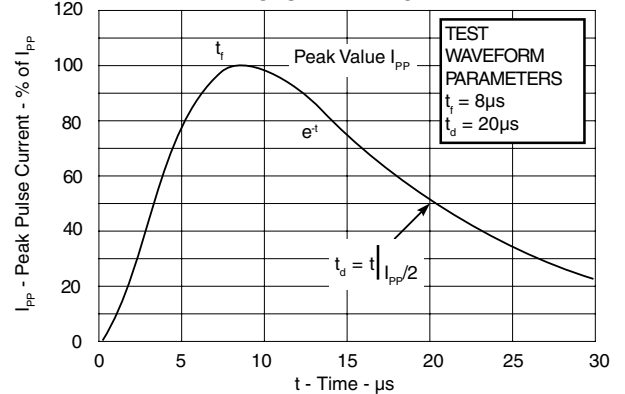
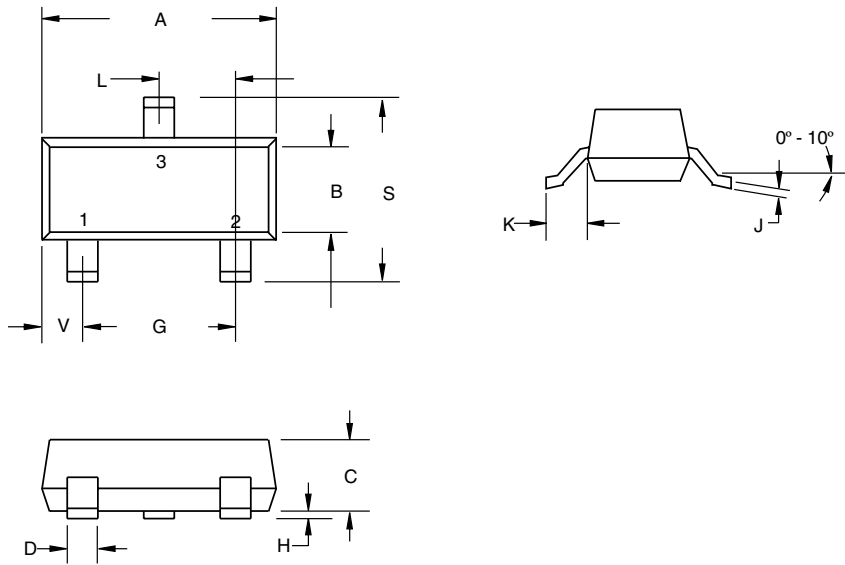


FIGURE 2
PULSE WAVE FORM



PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE



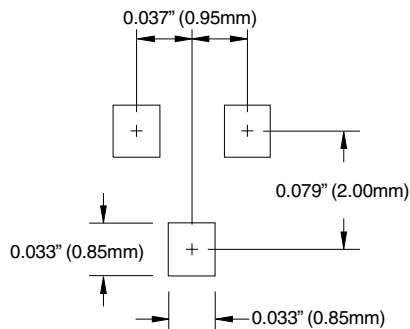
SOT-23



PACKAGE DIMENSIONS

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.80	3.04	0.1102	0.1197
B	1.20	1.40	0.0472	0.0551
C	0.89	1.11	0.0350	0.0440
D	0.37	0.50	0.0150	0.0200
G	1.78	2.04	0.0701	0.0807
H	0.013	0.100	0.0005	0.0040
J	0.085	0.177	0.0034	0.0070
K	0.45	0.60	0.0180	0.0236
L	0.89	1.02	0.0350	0.0401
S	2.10	2.50	0.0830	0.0984
V	0.45	0.60	0.0177	0.0236

MOUNTING PAD



NOTES

1. Dimensioning and tolerances per ANSI Y14.5M, 1985.
2. Controlling Dimension: Inches
3. Pin 3 is the cathode (Unidirectional Only).
4. Dimensions are exclusive of mold flash and metal burrs.

TAPE & REEL ORDERING NOMENCLATURE

1. Surface mount product is taped and reeled in accordance with EIA-481.
2. Suffix -T7 = 7 Inch Reel - 3,000 pieces per 8mm tape, i.e., *ESOT3.3LC-2-T7*.
3. Suffix -T13 = 13 Inch Reel - 10,000 pieces per 8mm tape, i.e., *ESOT3.3LC-2-T13*.
4. Suffix -LF = Lead-Free, Pure-Tin Plating, i.e., *ESOT3.3LC-2-LF-T7*.

Outline & Dimensions: Rev 1 - 11/01, 06012