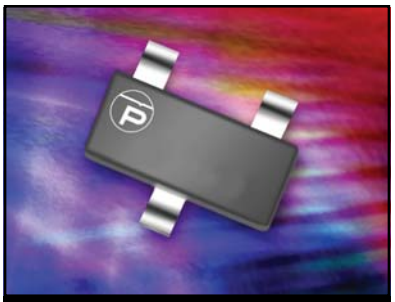
PROTEK DEVICES

ESOT3.3LC-2

LOW CAPACITANCE TVS ARRAY



SOT-23

APPLICATIONS

✔ Ethernet - 10/100/1000 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

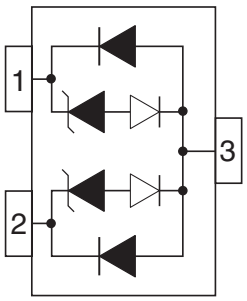
FEATURES

✔ ESD Protection > 25 kilovolts
✔ 175 Watts Peak Pulse Power per Line (tp=8/20µs)
✔ Protects Two (2) Bidirectional Lines
✔ Unidirectional Configuration
✔ Low Leakage Current < 2.0µA
✔ Low Capacitance: 15pF per Line
✔ RoHS Compliant

MECHANICAL CHARACTERISTICS

✔ Molded JEDEC SOT-23 Package
✔ Weight 8 milligrams (Approximate)
✔ Available in Lead-Free Pure-Tin Plating(Annealed)
✔ Solder Reflow Temperature:
Pure-Tin - Sn, 100: 260-270°C
✔ Consult Factory for Leaded Device Availability
✔ Flammability Rating UL 94V-0
✔ 8mm Tape and Reel Per EIA Standard 481
✔ Marking: Marking Code

PIN CONFIGURATION



DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified			
PARAMETER	**SYMBOL**	**VALUE**	**UNITS**
Peak Pulse Power (tp = 8/20µs) - See Figure 1	P_{PP}	175	Watts
Peak Pulse Current (tp = 8/20µs)	I_{PP}	5	A
Operating Temperature	T_A	-55 to 150	℃
Storage Temperature	T_{STG}	-55 to 150	℃

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_D µA	TYPICAL CAPACITANCE @0V, 1 MHz 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

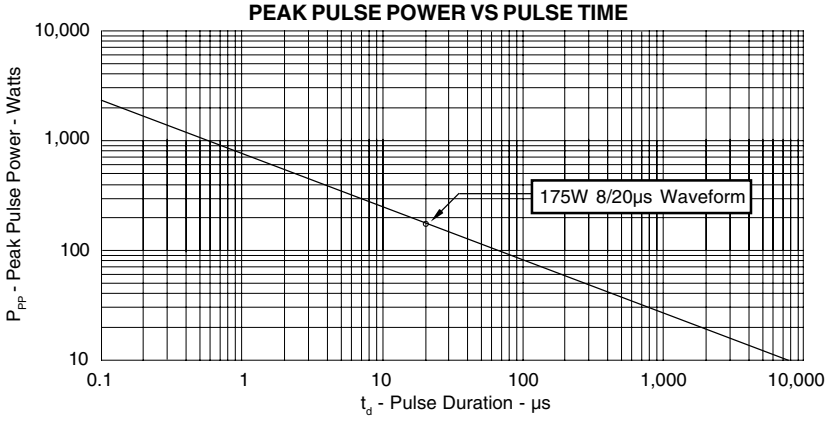
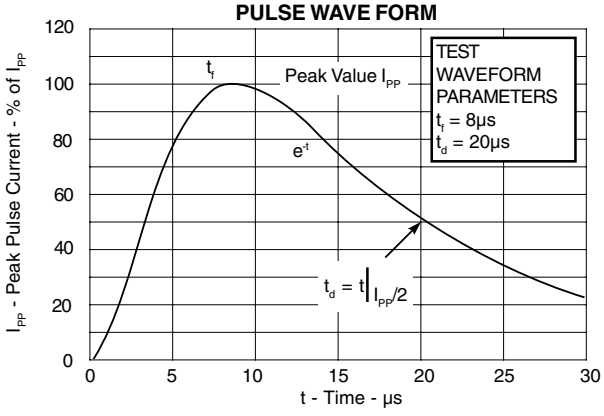
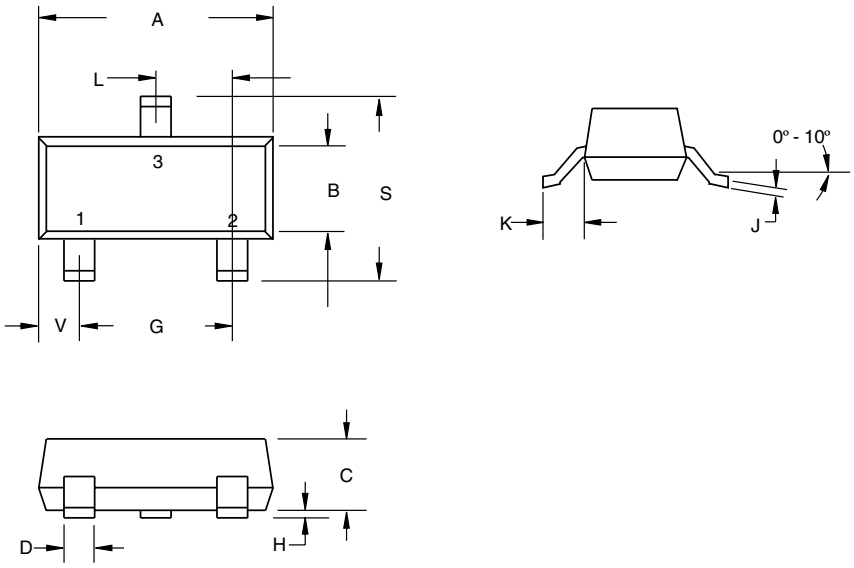


FIGURE 2
PULSE WAVE FORM



SOT-23 PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE



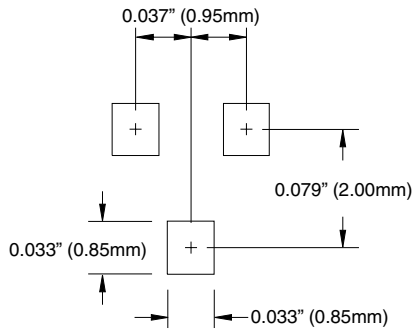
SOT-23



PACKAGE DIMENSIONS

	MILLIMETERS		INCHES	
DIM	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

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