

LOW CAPACITANCE TVS ARRAY

APPLICATIONS

- ✓ Ethernet - 10/100/1000 Base T
- ✓ CAN Bus
- ✓ Cellular Phones
- ✓ Audio/Video Inputs
- ✓ Personal Digital Assistant (PDA)
- ✓ E1/T1 & E3/T3

IEC COMPATIBILITY (EN61000-4)

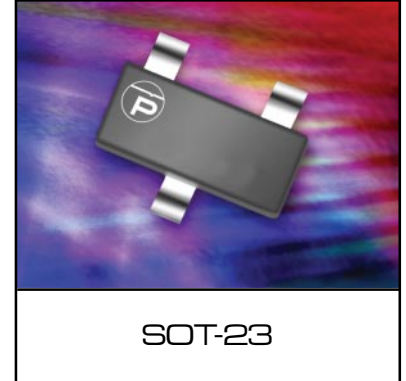
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns

FEATURES

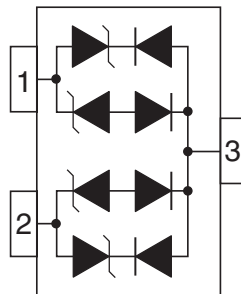
- ✓ ESD Protection > 25 kilovolts
- ✓ 100 Watts Peak Pulse Power per Line (tp = 8/20µs)
- ✓ Protects Two (2) Bidirectional Lines
- ✓ Bidirectional Configuration
- ✓ Low Leakage Current < 1.0µA
- ✓ **LOW CAPACITANCE: 6pF PER LINE**
- ✓ RoHS Compliant on Lead-Free Versions

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}	100	Watts
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{PP}	2	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 & 2)	DEVICE MARKING CODE	RATED STAND-OFF VOLTAGE	MINIMUM BREAKDOWN VOLTAGE	MAXIMUM LEAKAGE CURRENT	TYPICAL CAPACITANCE PER LINE
		V_{WM} VOLTS	@ 1mA $V_{(BR)}$ VOLTS	@ V_{WM} I_D μA	@ 0V, 1MHz C pF
ESOT24LCC-2	24L	24.0	26.6	1	6

Note 1: Test between pins 1 to 3 and 2 to 3 in both directions.

Note 2: Per IEC 61000-4-2, ESD $\pm 25kV$.

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

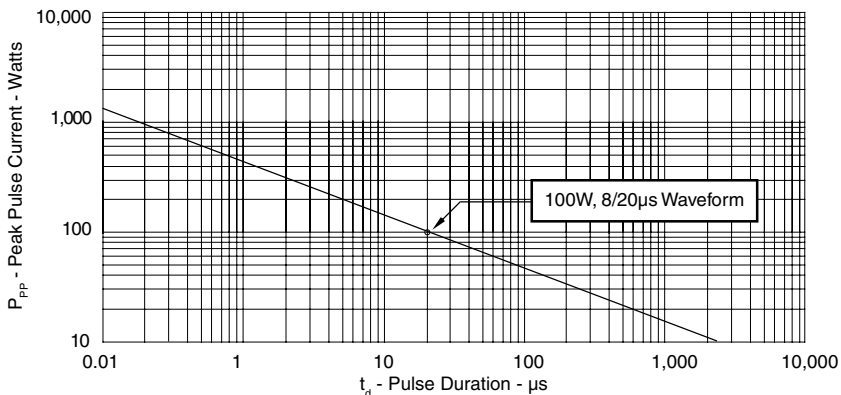
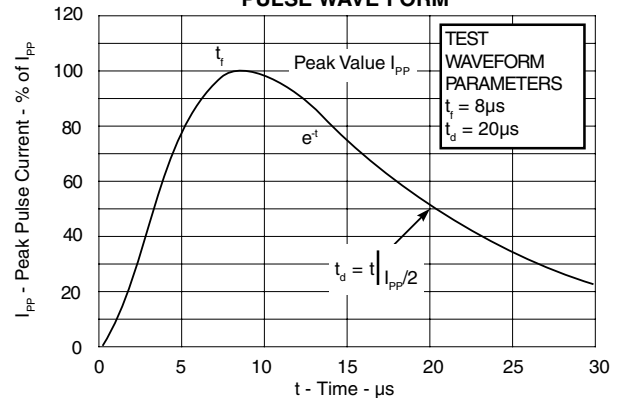
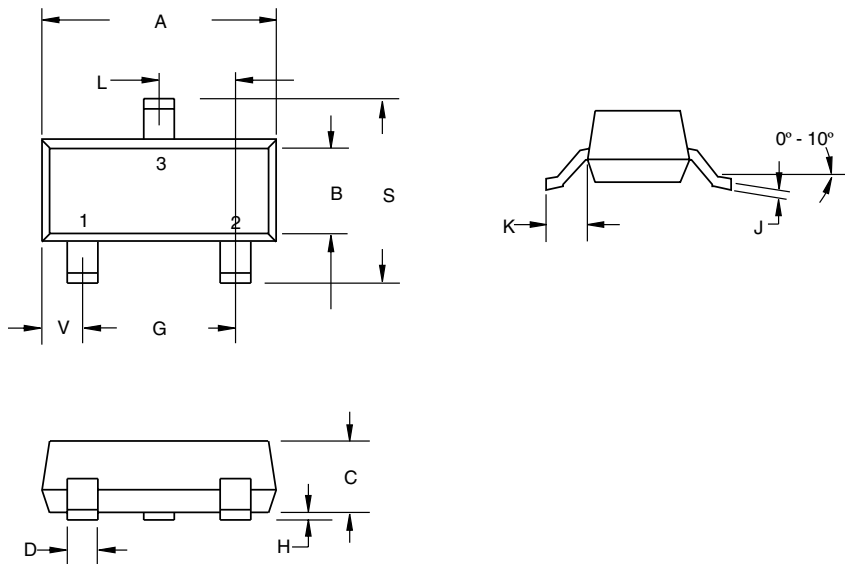


FIGURE 2
PULSE WAVE FORM

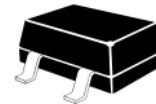


PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE



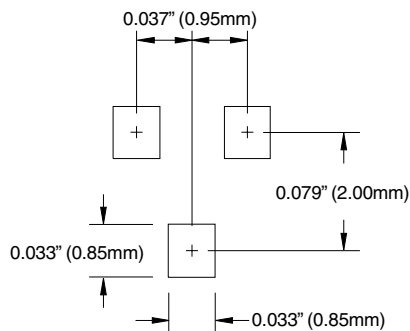
SOT-23



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., *ESOT24LCC-2-T7*.
3. Suffix -T13 = 13 Inch Reel - 10,000 pieces per 8mm tape, i.e., *ESOT24LCC-2-T13*.
4. Suffix -LF = Lead-Free, Pure-Tin Plating, i.e., *ESOT24LCC-2-LF-T13*.

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

COPYRIGHT © ProTek Devices 2005

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