

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)

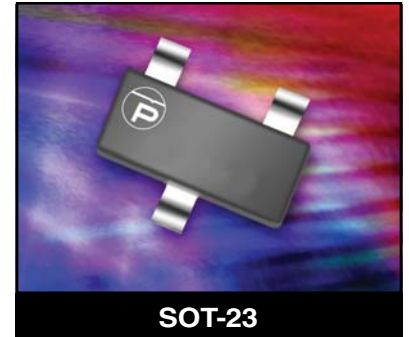
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns

FEATURES

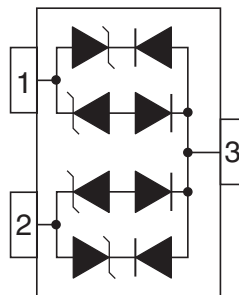
- ✓ ESD Protection > 25 kilovolts
- ✓ 100 Watts Peak Pulse Power per Line (tp=8/20µs)
- ✓ Protects Two (2) Bidirectional Lines
- ✓ Bidirectional Configuration
- ✓ Low Leakage Current < 1.0µA
- ✓ Low Capacitance: 6pF per Line
- ✓ RoHS Compliant

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



ESOT24LCC-2

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_A	-55 to 150	°C
Storage Temperature	T_{STG}	-55 to 150	°C

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified

PART NUMBER (See Notes 1 & 2)	DEVICE MARKING CODE	RATED STAND-OFF VOLTAGE V_{WM} VOLTS	MINIMUM BREAKDOWN VOLTAGE @ 1mA $V_{(BR)}$ VOLTS	MAXIMUM LEAKAGE CURRENT @ V_{WM} I_b μA	TYPICAL CAPACITANCE @ 0V, 1 MHz 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 6100-4-2, ESD $\pm 25kV$.

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

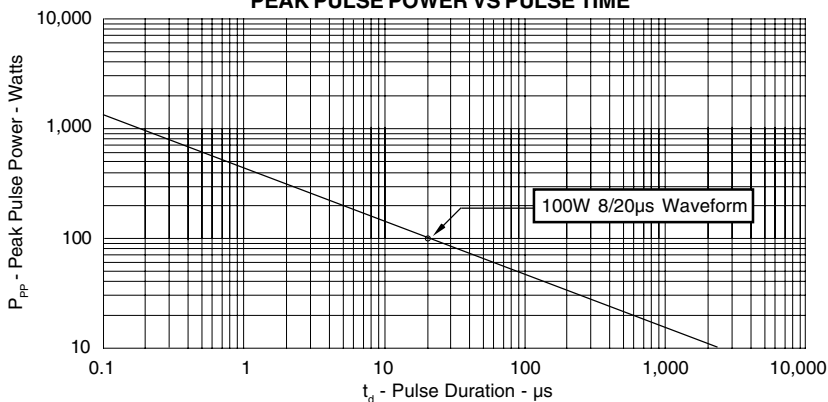
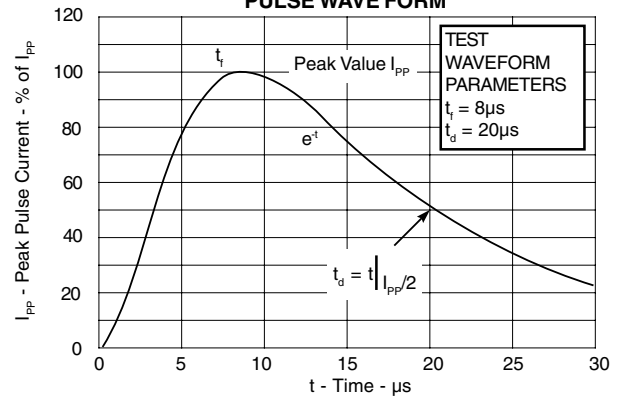


FIGURE 2
PULSE WAVE FORM



ESOT24LCC-2

SOT-23 PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE

The package outline drawings show a rectangular component with three pins. Dimensions include: A (total length), B (width), C (height), D (pin width), G (pin pitch), H (pin height), J (lead length), K (lead thickness), L (lead width), S (total height), and V (pin offset).

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

The mounting pad layout shows three pads with dimensions: 0.037" (0.95mm) between pads, 0.079" (2.00mm) from pad to edge, and 0.033" (0.85mm) for individual pad width and spacing.

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-T7*.

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

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