

## LOW CAPACITANCE TVS ARRAY

### 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)

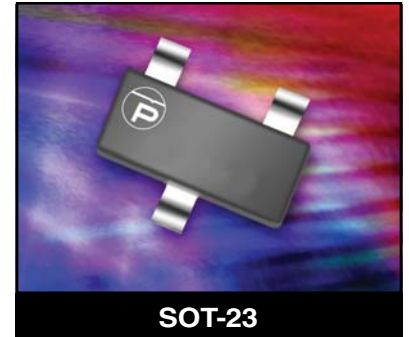
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns

### FEATURES

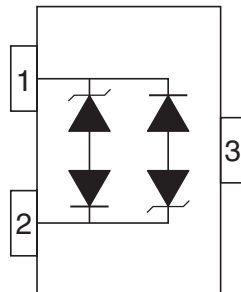
- ✓ ESD Protection > 25 kilovolts
- ✓ Protects One Bidirectional Line
- ✓ Bidirectional Configuration
- ✓ Low Leakage Current < 2.0 $\mu$ A
- ✓ Low Capacitance: 15pF per Line
- ✓ RoHS Compliant

### 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



# ESOT3.3LCC

## DEVICE CHARACTERISTICS

### MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

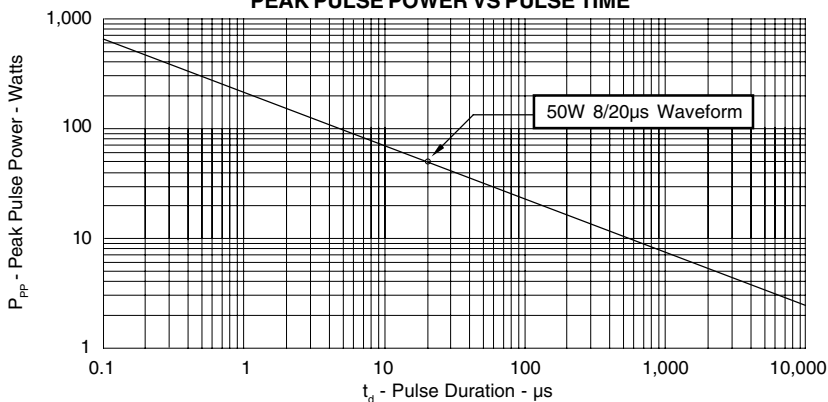
PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power ( $t_p = 8/20\mu s$ ) - See Figure 1	$P_{PP}$	50	Watts
Peak Pulse Current ( $t_p = 8/20\mu s$ )	$I_{PP}$	5	A
Operating Temperature	$T_A$	-55 to 150	°C
Storage Temperature	$T_{STG}$	-55 to 150	°C

### ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified

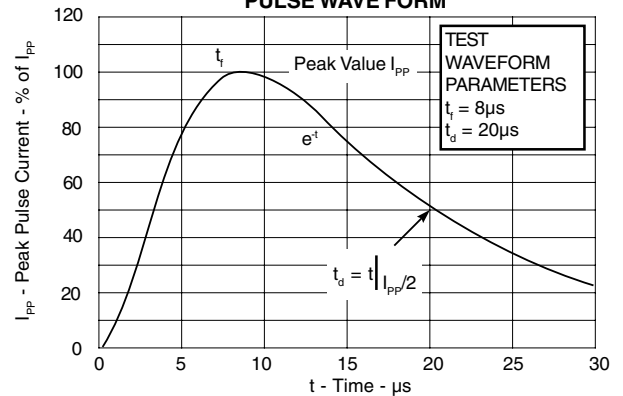
PART NUMBER (See Note 1)	DEVICE MARKING CODE	RATED STAND-OFF VOLTAGE  $V_{WM}$ VOLTS	MINIMUM BREAKDOWN VOLTAGE  @ 1mA $V_{(BR)}$ VOLTS	MINIMUM SNAP BACK VOLTAGE  @ $I_{SB} = 50mA$ $V_{SB}$ VOLTS	MAXIMUM LEAKAGE CURRENT  @ $V_{WM}$ $I_b$ $\mu A$	TYPICAL CAPACITANCE  @ 0V, 1 MHz C pF
ESOT3.3LCC	T3	3.3	3.6	3.3	2	15

**Note 1:** Bidirectional, test in both directions. Pin 3 is not connected.

**FIGURE 1**  
PEAK PULSE POWER VS PULSE TIME



**FIGURE 2**  
PULSE WAVE FORM



# ESOT3.3LCC

## SOT-23 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., *ESOT3.3LCC-T7*.
3. Suffix-T13 = 13 Inch Reel - 10,000 pieces per 8mm tape, i.e., *ESOT3.3LCC-T13*.
4. Suffix - LF = Lead-Free, Pure-Tin Plating, i.e., *ESOT3.3LCC-LF-T7*.

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

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