

## STANDARD CAPACITANCE TVS ARRAY

### APPLICATIONS

- ✓ USB Port Protection
- ✓ Cellular Phones
- ✓ Control & Monitoring Systems
- ✓ Portable Electronics
- ✓ Wireless Bus Protection

### IEC COMPATIBILITY (EN61000-4)

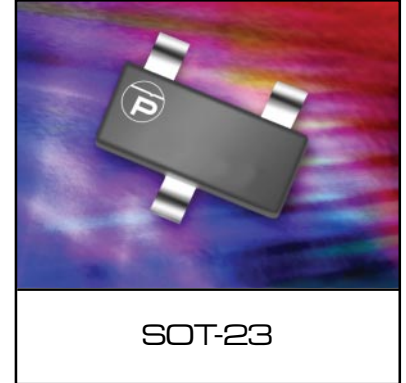
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns

### FEATURES

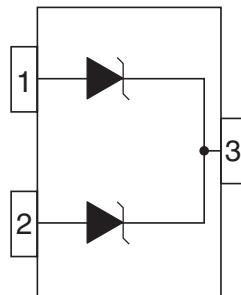
- ✓ ESD Protection > 40 kilovolts
- ✓ Low Clamping Voltage
- ✓ RoHS Compliant in Lead-Free Versions

### 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
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	DEVICE MARKING	RATED STAND-OFF VOLTAGE  $V_{WM}$ VOLTS	MINIMUM BREAKDOWN VOLTAGE (See Note 1) @ 10mA (Positive) $V_{(BR)}$ VOLTS	MINIMUM BREAKDOWN VOLTAGE (See Note 2) @ 10mA (Negative) $V_{(BR)}$ VOLTS	TYPICAL CLAMPING VOLTAGE (See Note 1) ESD = 8kV (Positive) $V_c$ VOLTS	TYPICAL CLAMPING VOLTAGE (See Note 2) ESD = 8kV (Negative) $V_c$ VOLTS	MAXIMUM LEAKAGE CURRENT (See Note 1)  @ $V_{WM}$ $I_b$ $\mu A$	TYPICAL CAPACITANCE  2.5V @ 1 MHz $C_j$ pF
LP05C	LP5	5.5	5.6	-1.2	12	-8	10	30

**Note 1:** Pins 3 to 1 and 3 to 2.

**Note 2:** Pins 1 to 3 and 2 to 3.

**PACKAGE OUTLINE & DIMENSIONS**

### PACKAGE OUTLINE

### SOT-23

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., LP05C-T7.
3. Suffix -T13 = 13 Inch Reel - 10,000 pieces per 8mm tape, i.e., LP05C-T13.
4. Suffix -LF = Lead-Free, Pure Tin Plating, i.e., LP05C-LF-T7.

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

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