

STANDARD CAPACITANCE TVS ARRAY**APPLICATIONS**

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

IEC COMPATIBILITY (EN61000-4)

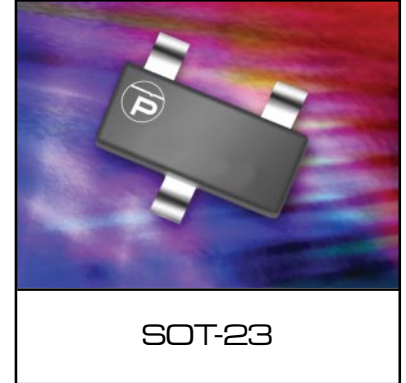
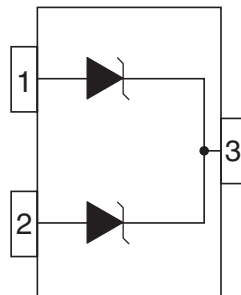
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns

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 μA	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 Top view dimensions: A (total width), L (pin 1 width), B (pin 1 to pin 2 distance), S (pin 2 to pin 3 distance), V (pin 1 to pin 2 distance), G (pin 2 to pin 3 distance). Side view dimensions: C (package height), H (pin 1 height), J (pin 2 height), K (pin 3 height). End view dimensions: D (pin 1 width), H (pin 1 height). Lead angle: 0° - 10°.	SOT-23 PACKAGE DIMENSIONS <table><tr><th rowspan="2">DIM</th><th colspan="2">MILLIMETERS</th><th colspan="2">INCHES</th></tr><tr><th>MIN</th><th>MAX</th><th>MIN</th><th>MAX</th></tr><tr><td>A</td><td>2.80</td><td>3.04</td><td>0.1102</td><td>0.1197</td></tr><tr><td>B</td><td>1.20</td><td>1.40</td><td>0.0472</td><td>0.0551</td></tr><tr><td>C</td><td>0.89</td><td>1.11</td><td>0.0350</td><td>0.0440</td></tr><tr><td>D</td><td>0.37</td><td>0.50</td><td>0.0150</td><td>0.0200</td></tr><tr><td>G</td><td>1.78</td><td>2.04</td><td>0.0701</td><td>0.0807</td></tr><tr><td>H</td><td>0.013</td><td>0.100</td><td>0.0005</td><td>0.0040</td></tr><tr><td>J</td><td>0.085</td><td>0.177</td><td>0.0034</td><td>0.0070</td></tr><tr><td>K</td><td>0.45</td><td>0.60</td><td>0.0180</td><td>0.0236</td></tr><tr><td>L</td><td>0.89</td><td>1.02</td><td>0.0350</td><td>0.0401</td></tr><tr><td>S</td><td>2.10</td><td>2.50</td><td>0.0830</td><td>0.0984</td></tr><tr><td>V</td><td>0.45</td><td>0.60</td><td>0.0177</td><td>0.0236</td></tr></table>	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
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MOUNTING PAD Pad dimensions: 0.037" (0.95mm) for the top two pads, 0.079" (2.00mm) for the bottom pad, 0.033" (0.85mm) for the pad width.	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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