

**LOW CAPACITANCE TVS ARRAY****APPLICATIONS**

- ✓ Noise Suppression for Data Lines
- ✓ Cellular Phones
- ✓ Personal Digital Assistant (PDA)
- ✓ Digital Cameras
- ✓ Laptop Computers

**IEC COMPATIBILITY (EN61000-4)**

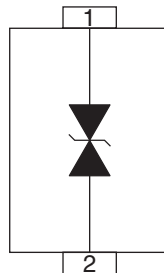
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns

**FEATURES**

- ✓ ESD Protection > 40 kilovolts
- ✓ 10 Watts Peak Pulse Power per Line (tp = 10/1000µs)
- ✓ Bidirectional Configuration
- ✓ Replacement for MLV (0805)
- ✓ Small Surface Mount Package
- ✓ Protects One Data Line
- ✓ Low Clamping Voltage
- ✓ **LOW CAPACITANCE**
- ✓ RoHS Compliant in Lead-Free Versions

**MECHANICAL CHARACTERISTICS**

- ✓ Molded EIAJ SC-79
- ✓ Weight 2 milligrams (Approximate)
- ✓ Available in Tin-Lead or Lead-Free Pure-Tin Plating
- ✓ 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**

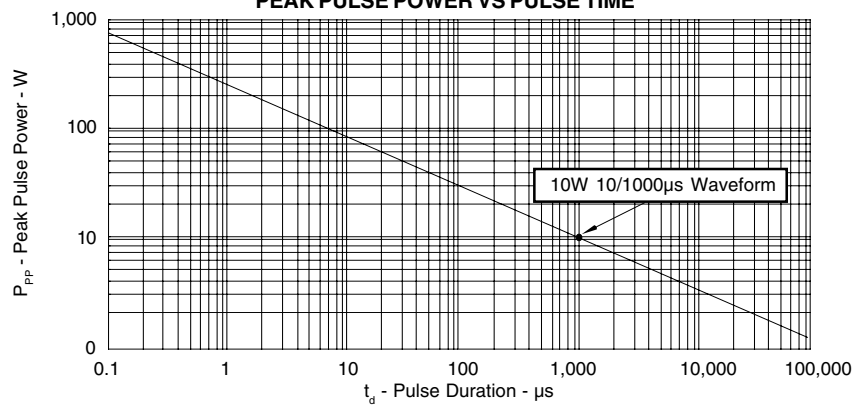
MAXIMUM RATINGS @ 25°C Unless Otherwise Specified			
PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power ( $t_p = 10/1000\mu s$ ) - See Figure 1	$P_{Pk}$	10	W
Power Dissipation	P	150	mW
Junction Temperature	$T_J$	150	°C
Storage Temperature	$T_{stg}$	-55 to 150	°C
Operation Temperature	$T_{opr}$	-50 to 150	°C

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified						
PART NUMBER (See Note 1)	DEVICE MARKING CODE	RATED STAND-OFF VOLTAGE	MINIMUM BREAKDOWN VOLTAGE	MAXIMUM BREAKDOWN VOLTAGE	MAXIMUM LEAKAGE CURRENT	TYPICAL CAPACITANCE
		$V_{WM}$ VOLTS	@ 1mA $V_{(BR)}$ VOLTS	@ 1mA $V_{(BR)}$ VOLTS	@ 3.5V $I_D$ $\mu A$	@ 0V, 1 MHz C pF
RSB6.8S	C5	4.7	5.7	7.82	0.5	30

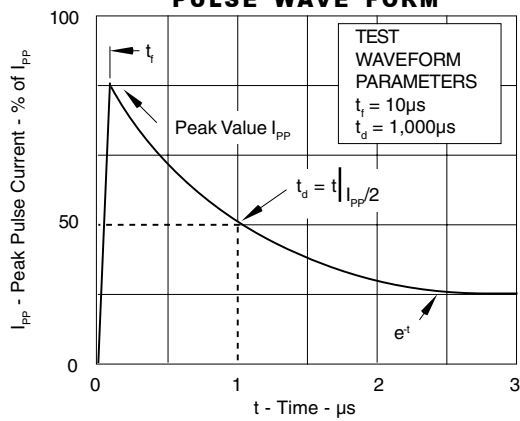
**Note 1:** Bidirectional device. Test both polarities.

GRAPHS

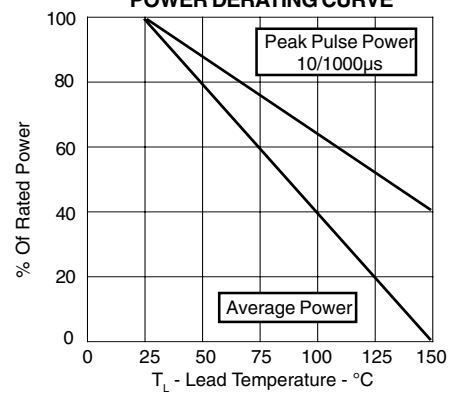
**FIGURE 1  
PEAK PULSE POWER VS PULSE TIME**



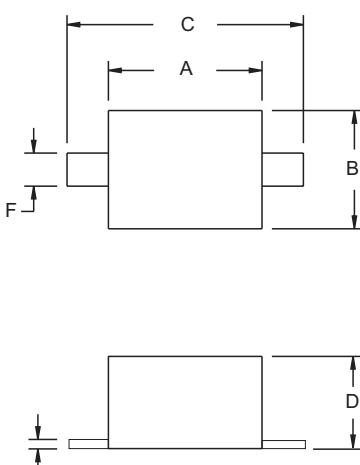
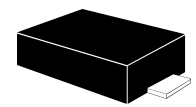
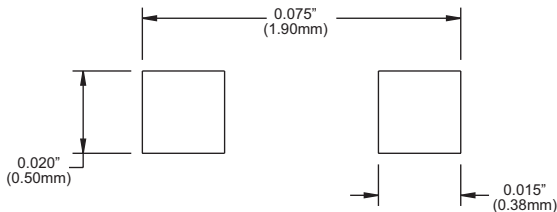
**FIGURE 2  
PULSE WAVE FORM**



**FIGURE 3  
POWER DERATING CURVE**

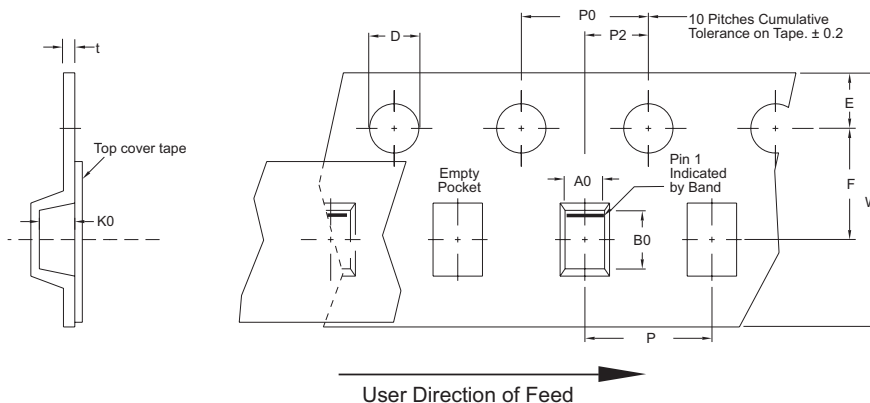


## PACKAGE OUTLINE & DIMENSIONS

<p style="text-align: center;"><b>PACKAGE OUTLINE</b></p> 	<p style="text-align: center;"><b>SC79 PACKAGE</b></p>  <p style="text-align: center;"><b>PACKAGE DIMENSIONS</b></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2">DIM</th> <th colspan="2">INCHES</th> <th colspan="2">MILLIMETERS</th> </tr> <tr> <th>MIN</th> <th>MAX</th> <th>MIN</th> <th>MAX</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>0.043</td> <td>0.049</td> <td>1.10</td> <td>1.30</td> </tr> <tr> <td>B</td> <td>0.028</td> <td>0.035</td> <td>0.70</td> <td>0.90</td> </tr> <tr> <td>C</td> <td>0.059</td> <td>0.066</td> <td>1.50</td> <td>1.70</td> </tr> <tr> <td>D</td> <td>0.020</td> <td>0.028</td> <td>0.50</td> <td>0.70</td> </tr> <tr> <td>E</td> <td>0.003</td> <td>0.008</td> <td>0.08</td> <td>0.20</td> </tr> <tr> <td>F</td> <td colspan="2">0.012 BSE</td> <td colspan="2">0.30 BSE</td> </tr> </tbody> </table>	DIM	INCHES		MILLIMETERS		MIN	MAX	MIN	MAX	A	0.043	0.049	1.10	1.30	B	0.028	0.035	0.70	0.90	C	0.059	0.066	1.50	1.70	D	0.020	0.028	0.50	0.70	E	0.003	0.008	0.08	0.20	F	0.012 BSE		0.30 BSE	
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<p style="text-align: center;"><b>MOUNTING PAD</b></p> 	<p><b>NOTES</b></p> <ol style="list-style-type: none"> <li>Controlling Dimensions in Millimeters.</li> <li>Dimensions are exclusive of mold flash and metal burrs.</li> </ol> <p><b>TAPE &amp; REEL ORDERING NOMENCLATURE</b></p> <ol style="list-style-type: none"> <li>Surface mount product is taped and reeled in accordance with EIA-481.</li> <li>Suffix-T7 = 7 Inch Reel - 3,000 pieces per 8mm tape, i.e., <i>RSB6.8S-T73</i>.</li> <li>Suffix-T13 = 13 Inch Reel - 10,000 pieces per 8mm tape, i.e., <i>RSB6.8S-T13</i>.</li> <li>Suffix-LF = Lead-Free, Pure Tin Plating, i.e., <i>RSB6.8S-LF-T73</i>.</li> </ol> <p style="text-align: right;"><b>Outline &amp; Dimensions: Rev 2- 9/05, 06037</b></p>																																							

Tape & Reel Specifications (Dimensions in millimeters)

Reel Dia.	Tape Width	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
178mm (7")	8mm	1.00 ± 0.10	1.95 ± 0.05	0.75 ± 0.05	1.50 ± 0.10	1.75 ± 0.10	3.50 ± 0.05	8.00 ± 0.30	4.00 ± 0.10	2.00 ± 0.05	4.00 ± 0.10	0.25



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