



RSB6.8S

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

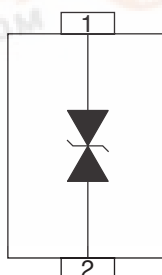
- ✓ ESD Protection > 40 kilovolts
- ✓ 10 Watts Peak Pulse Power per Line ($t_p = 10/1000\mu s$)
- ✓ Bidirectional Configuration
- ✓ Replacement for MLV (0805)
- ✓ Small Surface Mount Package
- ✓ Protects One Data Line
- ✓ Low Clamping Voltage
- ✓ **LOW CAPACITANCE**
- ✓ RoHS Compliant in Lead-Free Versions

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 μA	@ 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

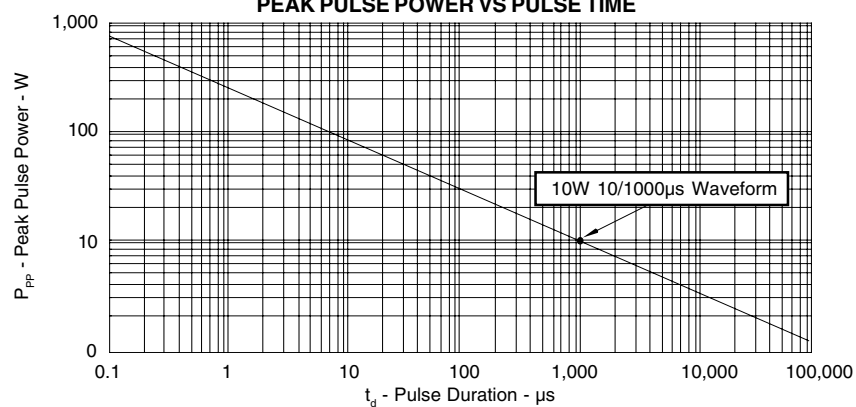


FIGURE 2
PULSE WAVE FORM

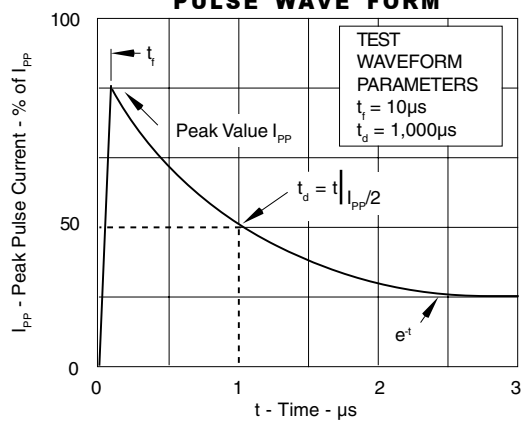
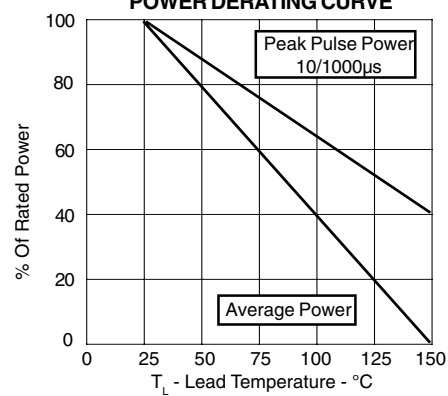
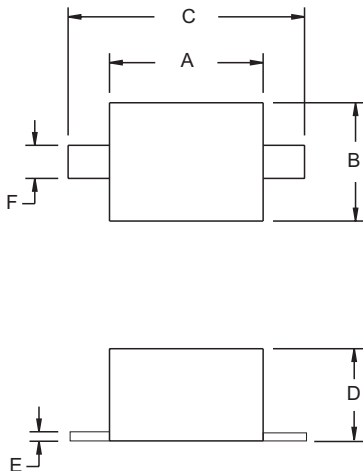
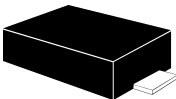
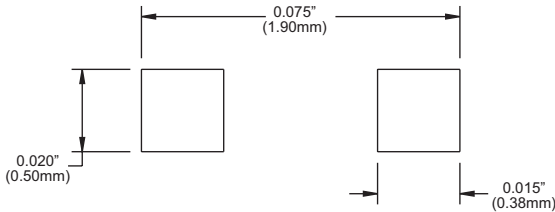


FIGURE 3
POWER DERATING CURVE



PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE 	SC79 PACKAGE 																																							
	PACKAGE DIMENSIONS <table><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><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></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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MOUNTING PAD 	NOTES 1. Controlling Dimensions in Millimeters. 2. 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., <i>RSB6.8S-T73</i>. 3. Suffix-T13 = 13 Inch Reel - 10,000 pieces per 8mm tape, i.e., <i>RSB6.8S-T13</i>. 4. Suffix-LF = Lead-Free, Pure Tin Plating, i.e., <i>RSB6.8S-LF-T73</i>. Outline & Dimensions: Rev 2- 9/05, 06037																																							

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

