

## 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

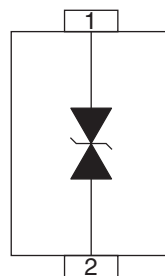
- ✓ ESD Protection > 40 kilovolts
- ✓ 10 Watts Peak Pulse Power per Line (tp=10/1000µs)
- ✓ Bidirectional Configuration
- ✓ Replacement for MLV (0603)
- ✓ Small Surface Mount Package
- ✓ Protects One Data Line
- ✓ Low Clamping Voltage
- ✓ Low Capacitance
- ✓ RoHS Compliant

## MECHANICAL CHARACTERISTICS

- ✓ Molded EIAJ SOD-723 Package
- ✓ Weight 2 milligrams (Approximate)
- ✓ Available in Lead-Free Pure-Tin Plating
- ✓ 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
- ✓ Device Marking: Marking Code



## PIN CONFIGURATION



# RSB6.8G

## DEVICE CHARACTERISTICS

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

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (tp = 10/1000µs) - See Figure 1	P <sub>PK</sub>	10	Watts
Power Dissipation	P	150	mW
Junction Temperature	T <sub>L</sub>	150	°C
Storage Temperature	T <sub>STG</sub>	-55 to 150	°C
Operating Temperature	T <sub>OPR</sub>	-55 to 150	°C

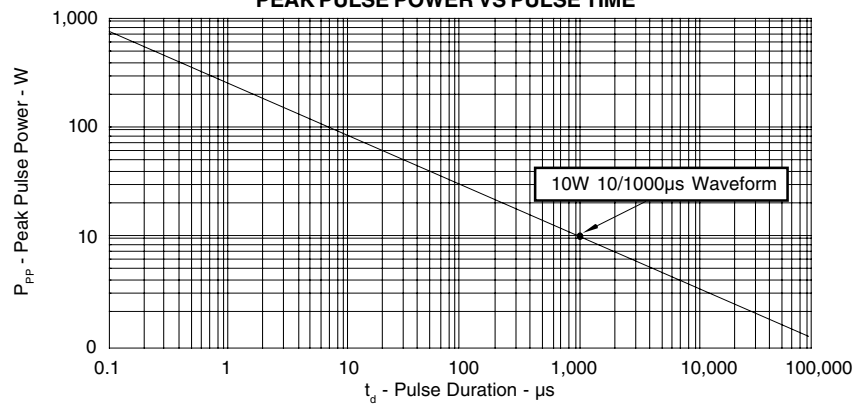
### ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified

PART NUMBER (See Note 1)	DEVICE MARKING	RATED STAND-OFF VOLTAGE	MINIMUM BREAKDOWN VOLTAGE	MAXIMUM LEAKAGE CURRENT	MAXIMUM CAPACITANCE
		V <sub>WM</sub> VOLTS	@ 1mA V <sub>(BR)</sub> VOLTS	@ 3.5V I <sub>b</sub> µA	0V @ 1 MHz C pF
RSB6.8G	A	4.7	5.7	0.5	15

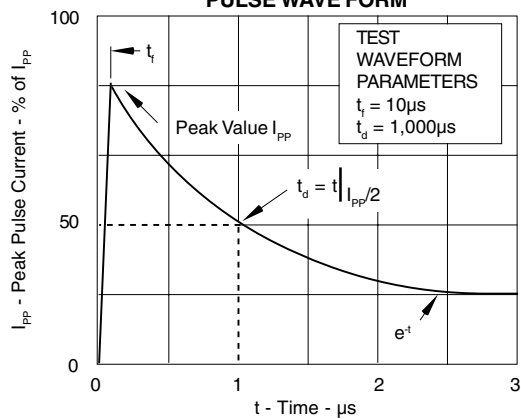
**Note 1:** Bidirectional device. Test both polarities.

## GRAPHS

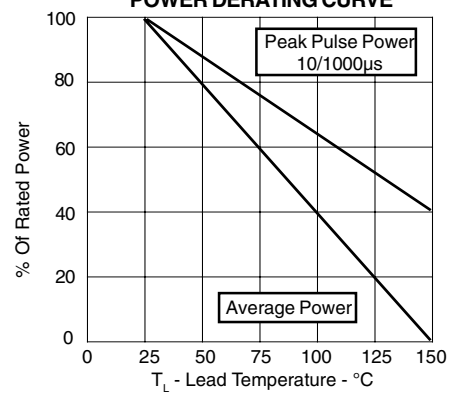
**FIGURE 1  
PEAK PULSE POWER VS PULSE TIME**



**FIGURE 2  
PULSE WAVE FORM**

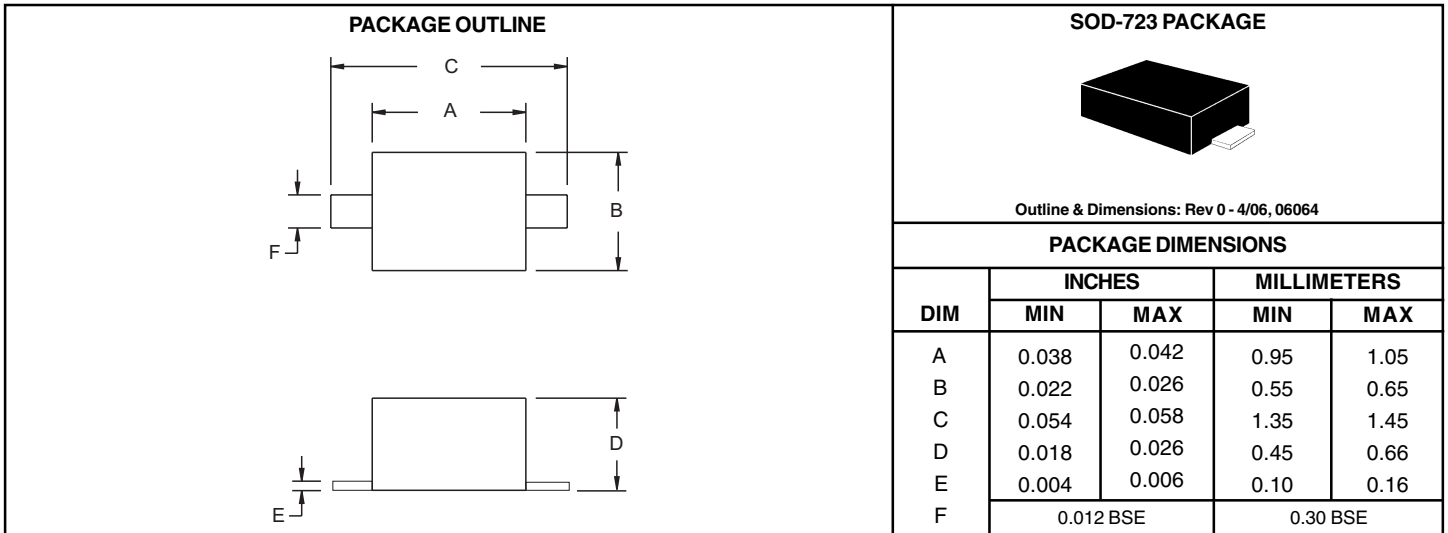


**FIGURE 3  
POWER DERATING CURVE**



# RSB6.8G

## SOD-723 PACKAGE OUTLINE & DIMENSIONS



**TAPE & REEL ORDERING NOMENCLATURE**

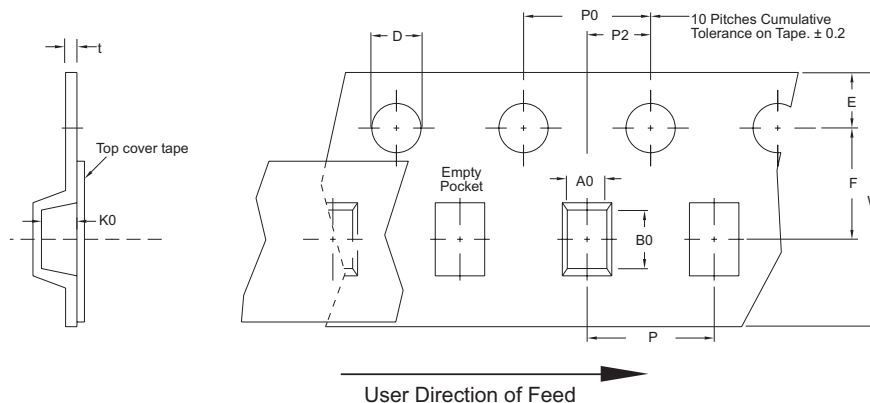
1. Surface mount product is taped and reeled in accordance with EIA-481.
2. Suffix-T7 = 7 Inch Reel - 3,000 pieces per 8mm tape, i.e., *RSB6.8G-T7*.
3. Suffix-T13 = 13 Inch Reel - 10,000 pieces per 8mm tape, i.e., *RSB6.8G-T13*.
4. Suffix - LF = Lead-Free, Pure-Tin Plating, i.e., *RSB6.8G-LF-T7*.

**NOTES**

1. Controlling Dimensions in Millimeters.
2. Dimensions are exclusive of mold flash and metal burrs.

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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