

STANDARD TVS COMPONENTS

APPLICATIONS

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

IEC COMPATIBILITY (EN61000-4)

- ✓ 61000-4-2 (ESD)
- ✓ 61000-4-4 (EFT)

FEATURES

- ✓ ESD Protection
- ✓ 50 Watts Peak Pulse Power per Line ($t_p=8/20\mu s$)
- ✓ Unidirectional Configuration
- ✓ Protects One Data Line
- ✓ Low Clamping Voltage
- ✓ Low Capacitance
- ✓ Easy Placement for Manufacturing
- ✓ RoHS Compliant
- ✓ Ultra Thin Package: 0.016" (Max) Height, 0.015" (Typical)

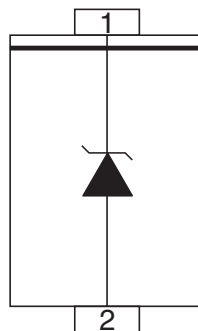
MECHANICAL CHARACTERISTICS

- ✓ SOD-923 Package
- ✓ Lead-Free Pure-Tin Plating
- ✓ Solder Reflow Temperature:
Pure-Tin - Sn, 100: 260-270°C
- ✓ Flammability Rating UL 94V-0
- ✓ 8mm Tape and Reel Per EIA Standard 481
- ✓ Device Marking: Marking Code

PRELIMINARY



PIN CONFIGURATION



PRSB6.8U

DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

PARAMETER	SYMBOL	VALUE	UNITS
Operating Temperature	T_A	-50 to 125	°C
Storage Temperature	T_{STG}	-55 to 150	°C
Peak Pulse Power ($t_p = 8/20\mu s$) - See Figure 1	P_{PP}	50	Watts

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified

PART NUMBER	DEVICE MARKING CODE	RATED STAND-OFF VOLTAGE	MINIMUM BREAKDOWN VOLTAGE	MAXIMUM LEAKAGE CURRENT	TYPICAL CAPACITANCE
		V_{WM} VOLTS	@ 1mA $V_{(BR)}$ VOLTS	@ V_{WM} I_b μA	@ 0V, 1 MHz C pF
PRSB6.8U	B	5.0	6.0	1	40

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

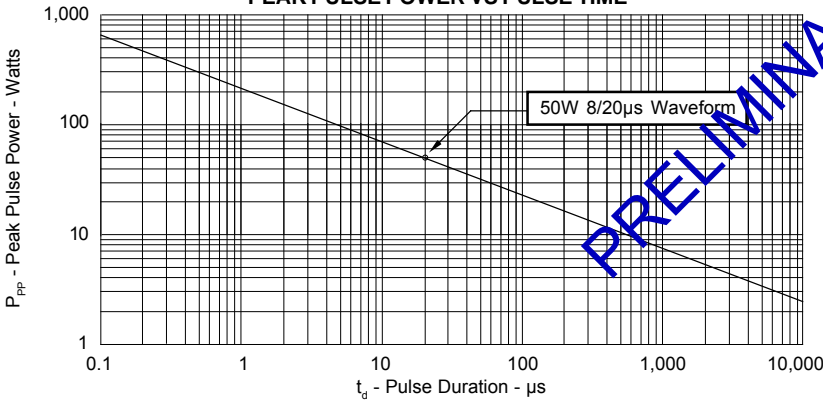


FIGURE 2
PULSE WAVE FORM

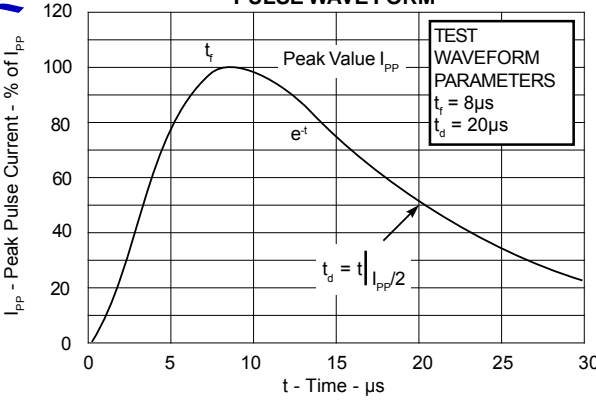
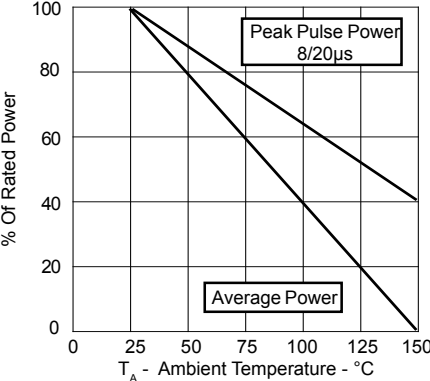


FIGURE 3
POWER DERATING CURVE



PRSB6.8U

SOD-923 PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE & PAD LAYOUT

PACKAGE DIMENSIONS						
	MILLIMETERS			INCHES		
DIM	MIN	NOM	MAX	MIN	NOM	MAX
A	0.34	0.37	0.40	0.013	0.015	0.016
b	0.15	0.20	0.25	0.006	0.008	0.010
c	0.07	0.12	0.17	0.003	0.005	0.007
D	0.75	0.80	0.85	0.030	0.031	0.033
E	0.55	0.60	0.65	0.022	0.024	0.026
He	0.95	1.00	1.05	0.037	0.039	0.041
L	0.05	0.10	0.15	0.002	0.004	0.006

NOTES

- Controlling Dimensions in Inches.
- Dimensions are exclusive of mold flash and metal burrs.

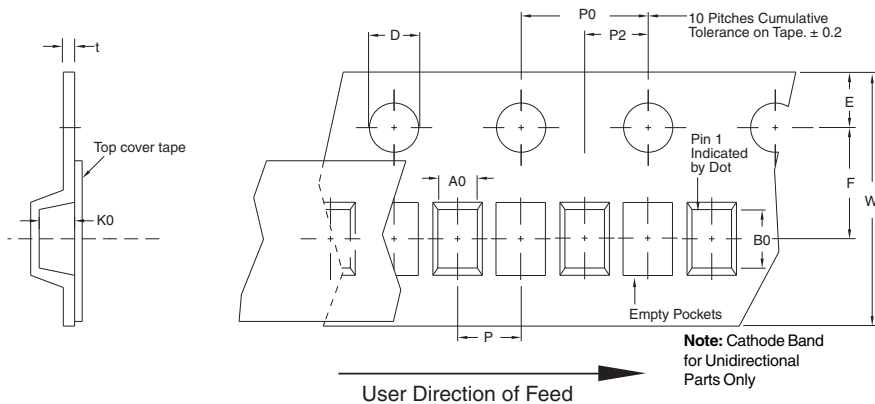
TAPE & REEL ORDERING NOMENCLATURE

- Surface mount product is taped and reeled in accordance with EIA-481.
- Suffix-T7 = 7 Inch Reel - 5,000 pieces per 8mm tape, i.e., PRSB6.8U-T7.
- Suffix-T710 = 7 Inch Reel - 10,000 pieces per 8mm tape, i.e. PRSB6.8U-T710.

Outline & Dimensions: Rev0 - 8/08, 060??

Tape & Reel Specifications (Dimensions in millimeters)

Reel Dia.	Tape Width	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
178mm (7")	8mm	0.70±0.05	1.12±0.05	0.5±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	2.00 ±0.10	0.25



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