

STANDARD TVS COMPONENTS**APPLICATIONS**

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

IEC COMPATIBILITY (EN61000-4)

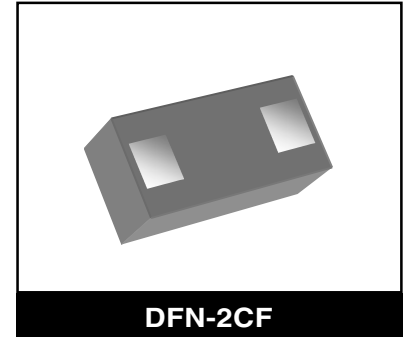
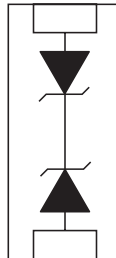
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns

FEATURES

- ✓ ESD Protection > 40 kilovolts
- ✓ 10 Watts Peak Pulse Power per Line ($t_p=10/1000\mu s$)
- ✓ Bidirectional Configuration
- ✓ Protects One Data Line
- ✓ Low Clamping Voltage
- ✓ Low Capacitance
- ✓ Easy Placement for Manufacturing
- ✓ RoHS Compliant

MECHANICAL CHARACTERISTICS

- ✓ DFN-2CF Package
- ✓ Weight 0.8 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**

PRSB6.8CF

DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

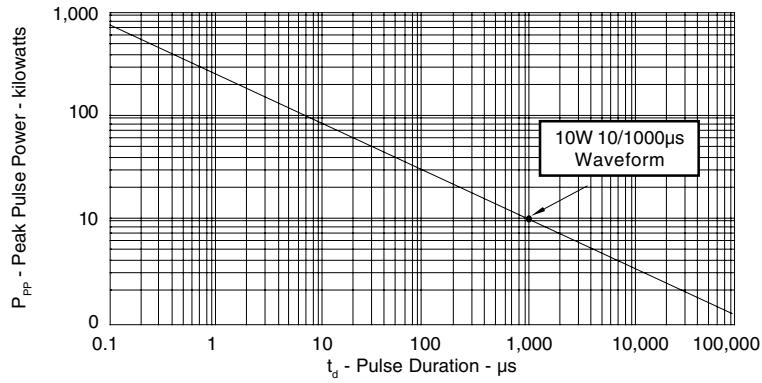
PARAMETER	SYMBOL	VALUE	UNITS
Operating Temperature	T_A	-50 to 150	°C
Storage Temperature	T_{STG}	-55 to 150	°C
Junction Temperature	T_J	150	°C
Peak Pulse Power (tp = 10/1000µs) - See Figure 1	P_{PP}	10	Watts
Power Dissipation	P	150	mW

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified

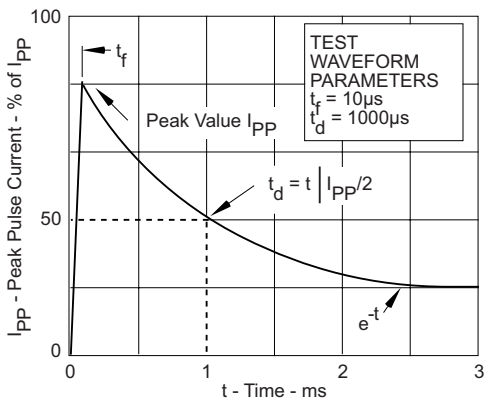
PART NUMBER	DEVICE MARKING CODE	RATED STAND-OFF VOLTAGE V_{WM} VOLTS	MINIMUM BREAKDOWN VOLTAGE @ 1mA $V_{(BR)}$ VOLTS	MAXIMUM BREAKDOWN VOLTAGE @ 1mA $V_{(BR)}$ VOLTS	MAXIMUM LEAKAGE CURRENT @3.5V I_b µA	TYPICAL CAPACITANCE @0V, 1 MHz C pF
PRSB6.8CF	A	4.7	5.7	7.82	0.5	15

GRAPHS

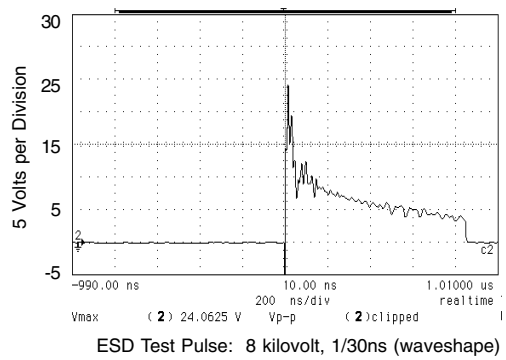
**FIGURE 1
PEAK PULSE POWER VS PULSE TIME**



**FIGURE 2
PULSE WAVE FORM**



**FIGURE 3
OVERSHOOT & CLAMPING VOLTAGE**



PRSB6.8CF

DFN-2CF PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE

MOUNTING PAD

PACKAGE DIMENSIONS

DIM	INCHES			MILLIMETERS		
	MIN	NOR	MAX	MIN	NOR	MAX
A	0.036	0.039	0.042	0.914	0.991	1.067
B	0.020	0.023	0.025	0.508	0.584	0.635
C	0.015	0.017	0.020	0.381	0.432	0.508
H	0.0015	0.002	0.0025	0.038	0.051	0.064
m	0.008	0.009	0.010	0.203	0.228	0.254
L1	0.010	0.012	0.014	0.254	0.304	0.356
L2	0.010	0.012	0.014	0.254	0.304	0.356
L3	0.010	0.012	0.014	0.254	0.304	0.356

NOTES

- Controlling dimensions in inches.
- Decimal tolerances for mounting pad : $\pm 0.003''$ ($\pm 0.08\text{mm}$).
- Maximum size: 0.042" by 0.025"

PAD DIMENSIONS

DIM	MILLIMETERS	INCHES
a	0.762 ± 0.025	0.030 ± 0.001
b	0.356 ± 0.025	0.014 ± 0.001
c	0.381 ± 0.025	0.015 ± 0.001
e	1.473 ± 0.050	0.058 ± 0.002
f	0.559 ± 0.025	0.022 ± 0.001
d	0.25 - 0.30	0.010 - 0.012

TAPE & REEL ORIENTATION

NOTE

- Top view of tape. Solder PADS face down in tape package.

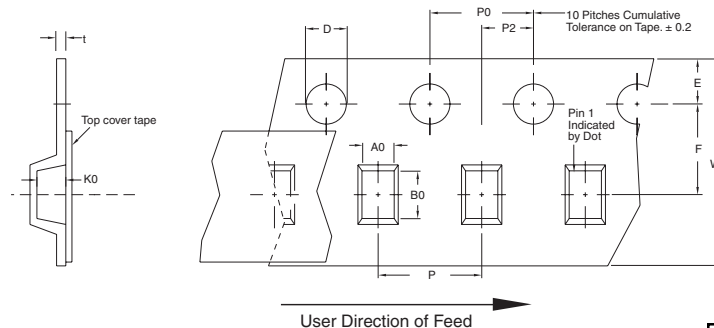
TAPE & REEL ORDERING NOMENCLATURE

- Surface mount product is taped and reeled in accordance with EIA-481.
- Suffix -T75 = 7 Inch Reel - 5,000 pieces per 8mm tape, i.e., *PRSB6.8CF-T75*.
- Suffix -LF = Lead-Free, Pure-Tin Plating, i.e., *PRSB6.8CF-LF*.

Outline & Dimensions: Rev 0 - 1/07, 06072

Tape & Reel Specifications (Dimensions in millimeters)

Reel Dia.	Tape Width	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
178mm (7")/330mm (13")	8mm	0.80 ± 0.10	1.20 ± 0.10	0.70 ± 0.10	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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