

HIGH POWER STANDARD CAPACITANCE TVS ARRAY

APPLICATIONS

- ✓ Laptop Computers
- ✓ Cellular Phones
- ✓ Digital Cameras
- ✓ Personal Digital Assistant (PDA)

IEC COMPATIBILITY (EN61000-4)

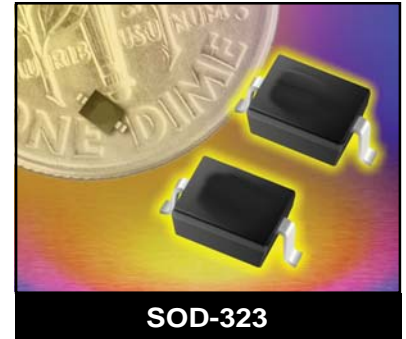
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 45A, 8/20 μ s

FEATURES

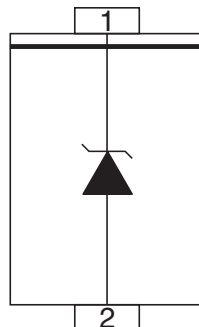
- ✓ 1000 Watts Peak Pulse Power per Line (tp = 8/20 μ s)
- ✓ Unidirectional Configuration
- ✓ Replacement for MLV (0805)
- ✓ Protects One Power Port
- ✓ Low Clamping Voltage
- ✓ RoHS Compliant

MECHANICAL CHARACTERISTICS

- ✓ Molded JEDEC SOD-323 Package
- ✓ Weight 5 milligrams (Approximate)
- ✓ Available in Lead-Free Pure-Tin Plating (Annealed)
- ✓ 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 & Polarity Band (*Unidirectional Only*)



PIN CONFIGURATION



PSD05HP**DEVICE CHARACTERISTICS****MAXIMUM RATINGS @ 25°C Unless Otherwise Specified**

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power ($t_p = 8/20\mu s$) - See Figure 1	P_{PP}	1000	Watts
Operating Temperature	T_L	-55 to 150	°C
Storage Temperature	T_{STG}	-55 to 150	°C

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified

PART NUMBER	DEVICE MARKING	RATED STAND-OFF VOLTAGE V_{WM} VOLTS	MINIMUM BREAKDOWN VOLTAGE @ 1mA $V_{(BR)}$ VOLTS	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @ $I_P = 1A$ V_C VOLTS	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @8/20 μs $V_C @ I_{FP}$	MAXIMUM LEAKAGE CURRENT @ V_{WM} I_b μA	TYPICAL CAPACITANCE 0V @ 1 MHz C pF
PSD05HP	P	5.0	6.0	9.8	15.0V @ 72.0A	20	800

PSD05HP

GRAPHS

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

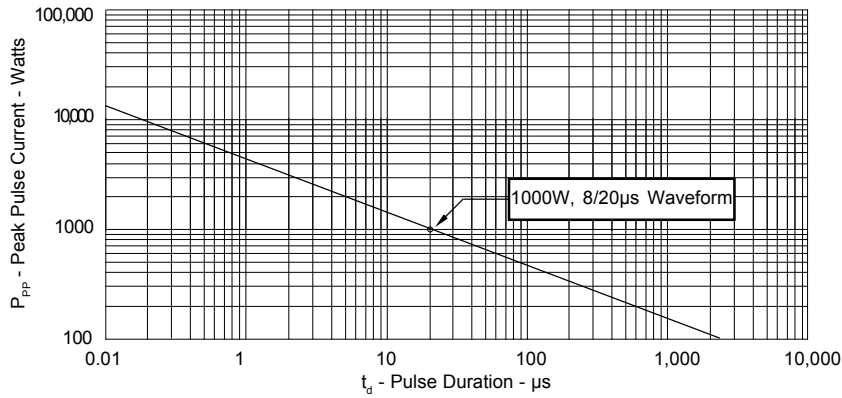


FIGURE 2
PULSE WAVE FORM

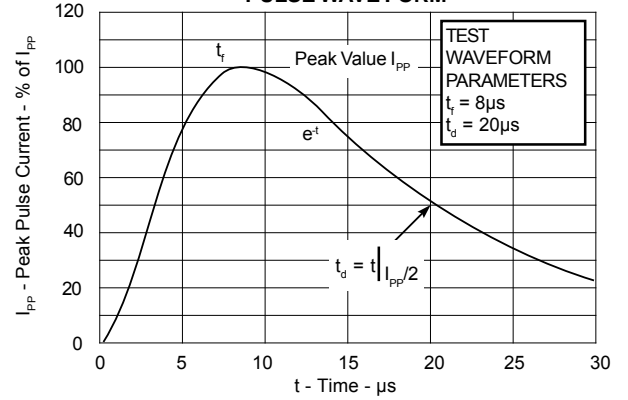
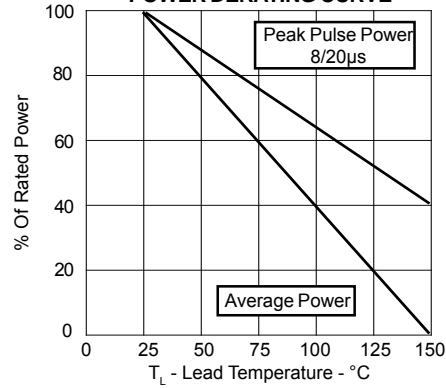
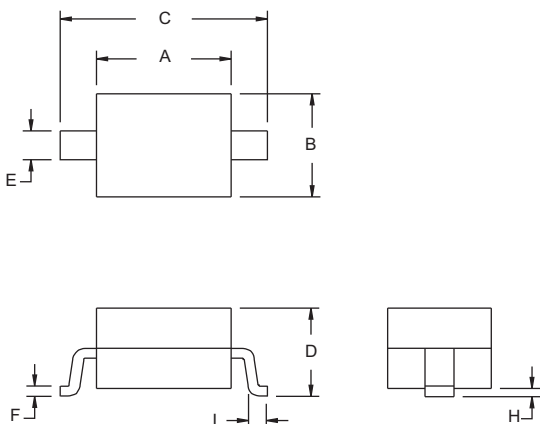



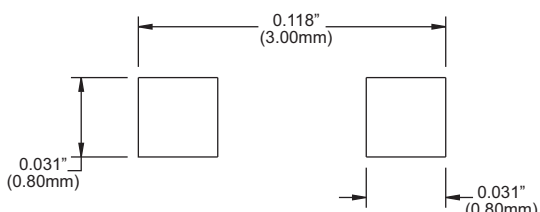
FIGURE 3
POWER DERATING CURVE



PSD05HP

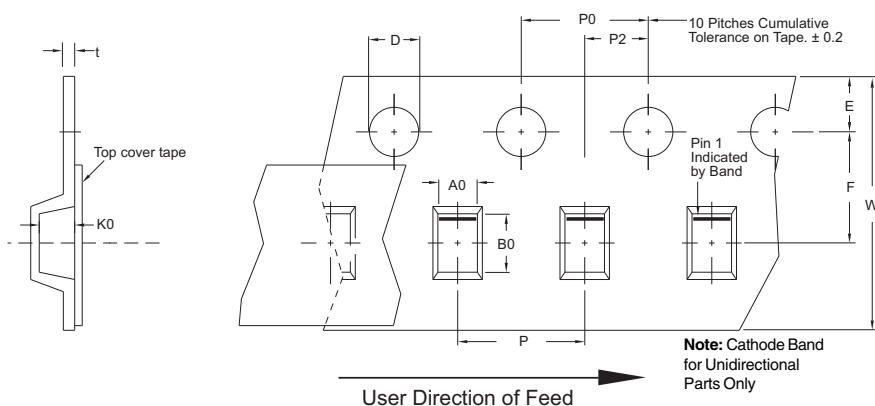
SOD-323 PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE		SOD-323 PACKAGE			
					
PACKAGE DIMENSIONS					
DIM	MILLIMETERS		INCHES		
	MIN	MAX	MIN	MAX	
A	1.60	1.90	0.063	0.075	
B	1.15	1.45	0.045	0.057	
C	2.39	2.70	0.094	0.106	
D	0.80	1.10	0.031	0.043	
E	0.25	0.40	0.010	0.016	
F	0.10	0.20	0.004	0.008	
H	-	0.10	-	0.004	
L	0.20	-	0.08	-	

MOUNTING PAD		NOTES	
		<p>1. Controlling Dimensions in Millimeters. 2. Dimensions are exclusive of mold flash and metal burrs.</p> <p>TAPE & REEL ORDERING NOMENCLATURE</p> <p>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., PSD05HP-T7.</p>	
Outline & Dimensions: Rev 3 - 4/07, 06010			

Tape & Reel Specifications (Dimensions in millimeters)

Reel Dia.	Tape Width	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
178mm (7")	8mm	1.55 ± 0.10	2.90 ± 0.10	1.35 ± 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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