

ESD5B5WT

Transient Voltage Suppressors

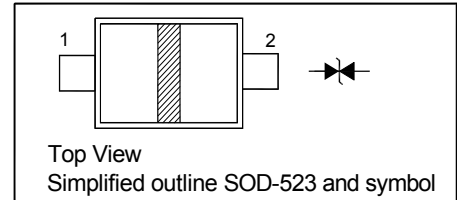
Bi-directional for ESD Protection

Features

- Excellent clamping capability
- Low leakage
- Fast response time

PINNING

PIN	DESCRIPTION
1	Anode
2	Anode

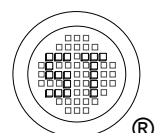


Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Working Peak Reverse Voltage	V_{RWM}	5	V
IEC61000-4-2 (ESD) Air Contact	V_{ESD}	± 30 ± 30	KV
ESD Voltage	-	Per Human Body Model	16
		Per Machine Model	400
Peak Power	P_{PK}	Per 8 X 20 μs Waveform	50
		Per 10 X 1000 μs Waveform	10
Power Dissipation on FR-5 Board	P_{tot}	200	mW
Junction and Storage Temperature Range	T_j, T_{stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
Breakdown Voltage at $I_T = 1 \text{ mA}$	$V_{(BR)R}$	5.8	-	7.8	V
Reverse Current at $V_{RWM} = 5 \text{ V}$	I_R	-	-	1	μA
Total Capacitance at $V_R = 0 \text{ V}, f = 1 \text{ MHz}$	C_{tot}	-	32	-	pF



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Electrical Characteristics Curves

Fig 1. Pulse Waveform

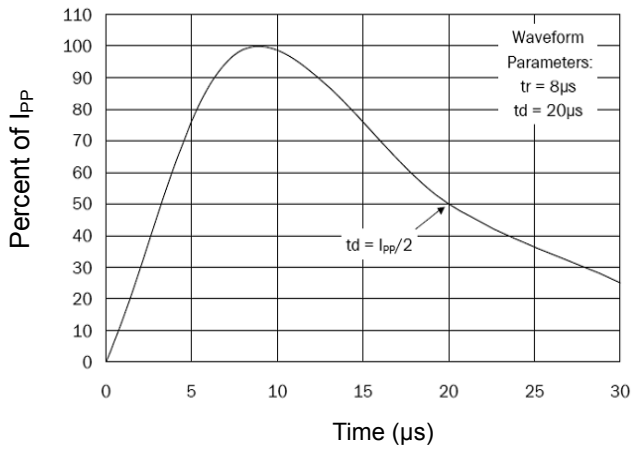


Fig 2. Power Derating Curve

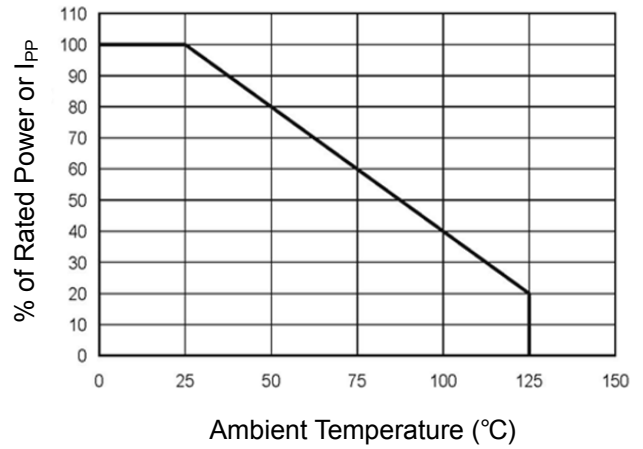


Fig 3. Clamping Voltage Curve (Pin 1 to Pin 2)

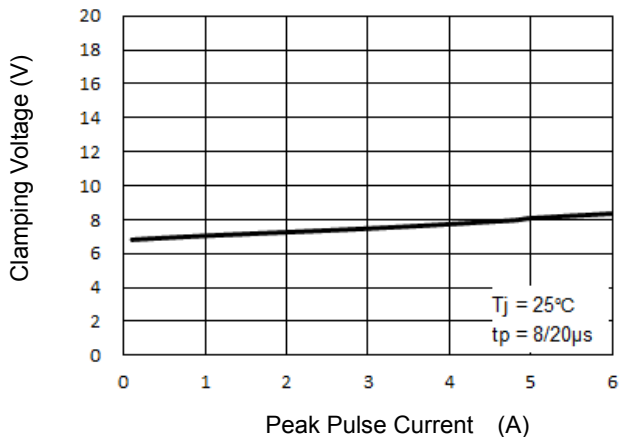


Fig 4. Junction Capacitance (Pin 1 to Pin 2)

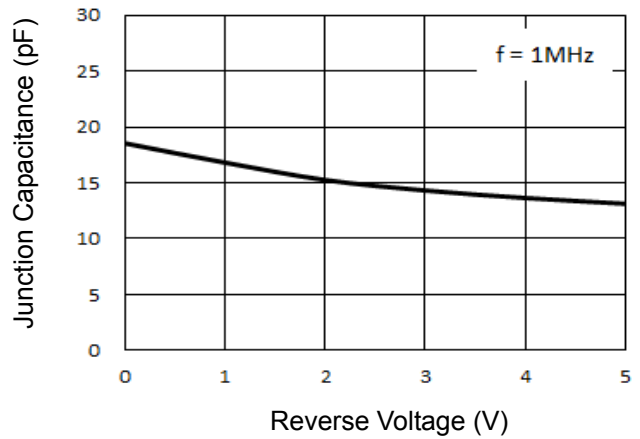


Fig 5. Clamping Voltage Curve (Pin 2 to Pin 1)

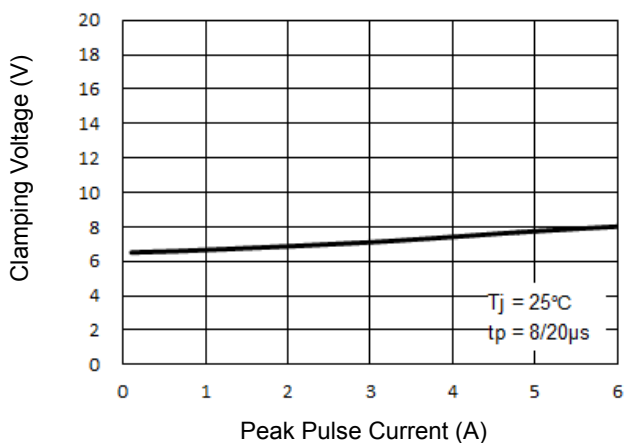
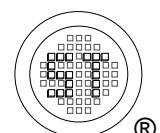
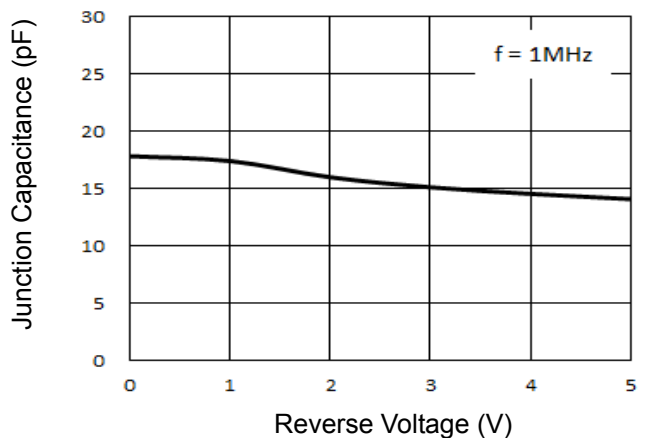


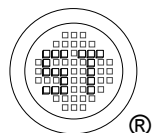
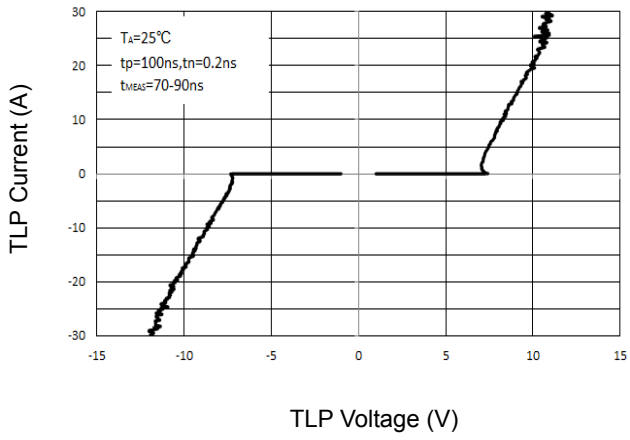
Fig 6. Junction Capacitance (Pin 2 to Pin 1)



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Electrical Characteristics Curves

Fig. 7 TLP Curve

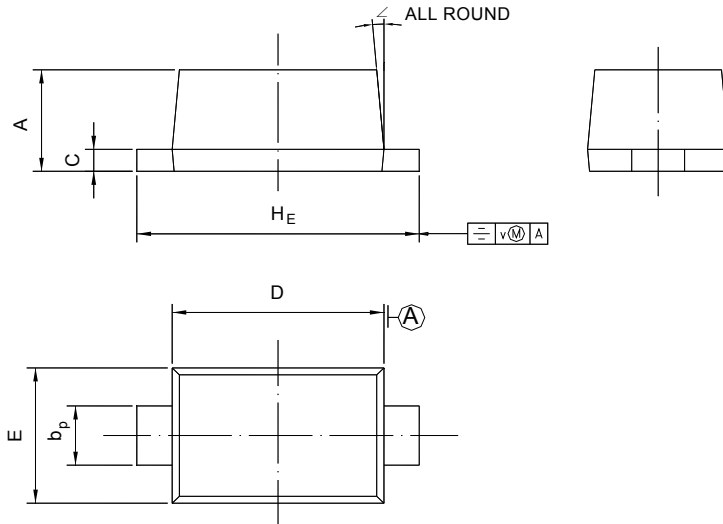


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PACKAGE OUTLINE

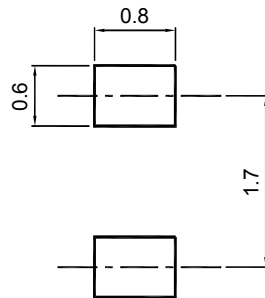
Plastic surface mounted package; 2 leads

SOD-523



UNIT	A	b _p	C	D	E	H _E	V	∠
mm	0.70 0.60	0.4 0.3	0.135 0.100	1.25 1.15	0.85 0.75	1.7 1.5	0.1	5°

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-523	8	4 ± 0.1	0.157 ± 0.004	178	7	4,000

Marking information

" III ": Polarity marking

