

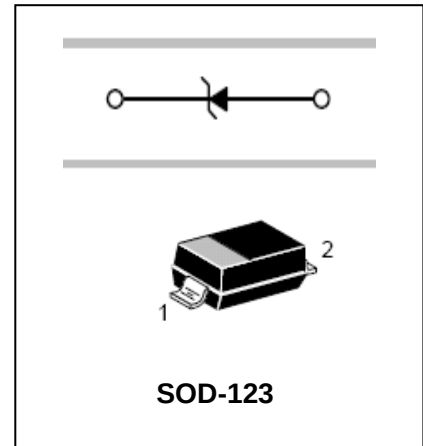
Single Line TVS Diode

GESD5V0D1

FEATURES

- Suitable replacement for MLV'S ESD protection
- Low leakage current
- Low clamping voltage

HF



APPLICATIONS

- Single line TVS diode
- Computers and peripherals
- Communication systems
- Audio and video equipment

ORDERING INFORMATION

Type No.	Marking	Package Code
GESD5V0D1	5U	SOD-123

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Limits	Unit
Reverse standoff voltage	V_{RWM}	5	V
Peak pulse power dissipation($t_p=8/20\mu s$)	P_{PP}	300	W
Peak pulse current($t_p=8/20\mu s$)	I_{PP}	15	A
ESD (electrostatic discharge capability)	V_{PP}	30	kV
Junction temperature	T_J	150	℃
Storage and operating temperature	$T_{STG} T_{amb}$	-55 to+150	℃

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse breakdown voltage	V_{BR}	$I_R=5mA$	6.4	6.8	7.5	V
Reverse leakage current	I_R	$V_{RWM}=5V$			1	μA
Diode capacitance	C_d	$V_R=0V, f=1MHz$			250	pF
Clamping voltage	$V_{(CL)}$	$I_{PP}=1A$			9	V
		$I_{PP}=15A$			20	
Differential resistance	R_{diff}	$I_R=1mA$			400	Ω
		$I_R=1mA$			80	
		$I_R=1mA$			200	
		$I_R=1mA$			225	
		$I_R=0.5mA$			300	

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TYPICAL CHARACTERISTICS @ $T_a=25^{\circ}\text{C}$ unless otherwise specified

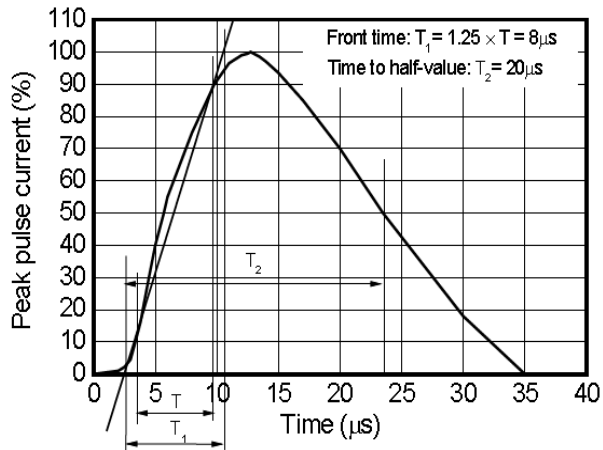


Fig 1 8/20 μs waveform per IEC61000-4-5

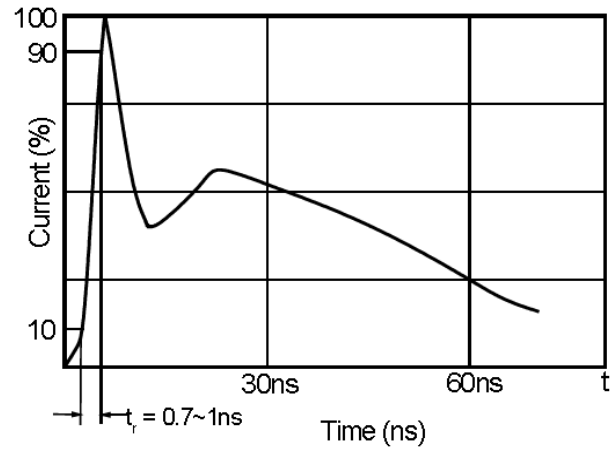


Fig 2 ESD pulse waveform according to IEC61000-4-2

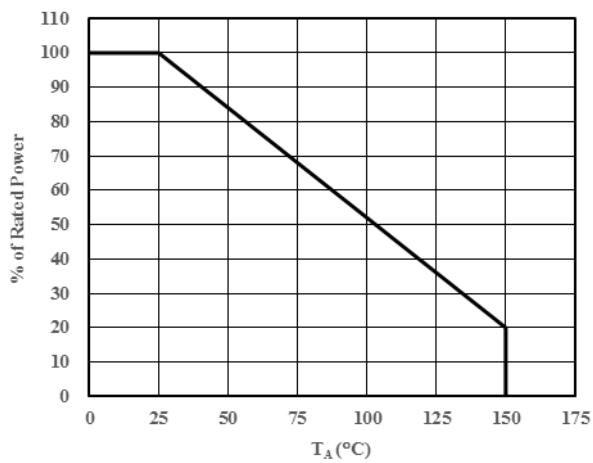


Fig 3 Power Derating Curve

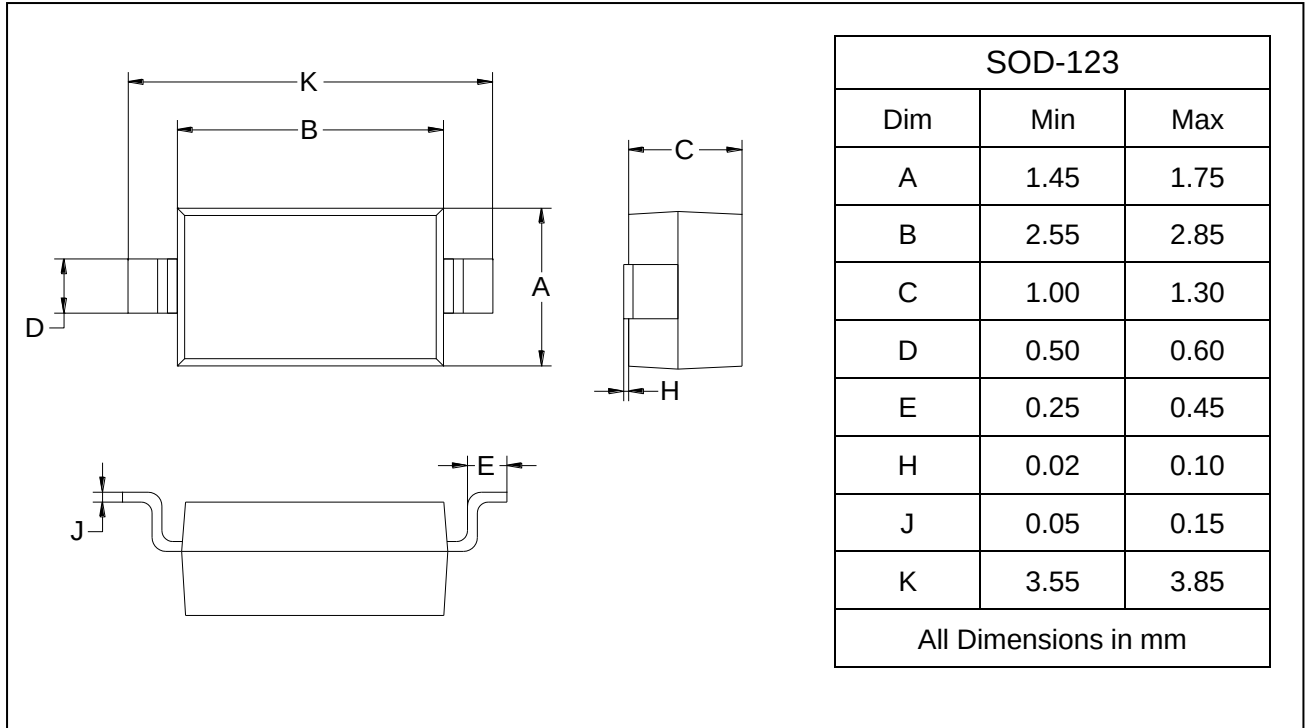
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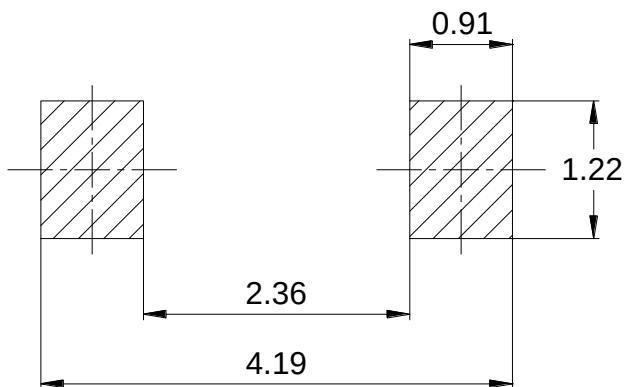
PACKAGE OUTLINE

Plastic surface mounted package

SOD-123



SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

Device	Package	Shipping
GESD5V0D1	SOD-123	3000pcs /Tape & Reel