

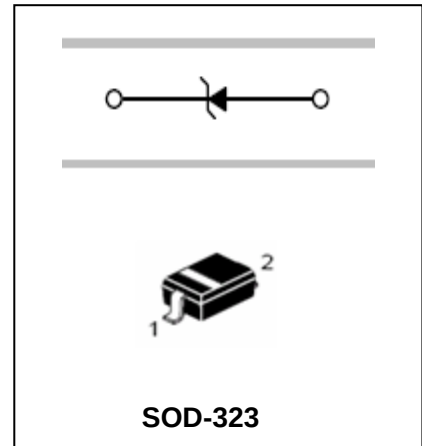
Single Line TVS Diode

TGESD5V0D3

FEATURES

- For sensitive ESD protection
- Excellent clamping capability
- Low leakage
- Fast response, response time less than 1ns
- Halogen free
- Qualified to AEC-Q101 standards for high reliability

HF



APPLICATIONS

- Computers and peripherals
- Communication systems
- Audio and video equipment

ORDERING INFORMATION

Type No.	Marking	Package Code
TGESD5V0D3	N2	SOD-323

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Limits	Unit
IEC61000-4-2(ESD) Air Contact	V_{ESD}	± 15 ± 8	KV
Reverse standoff voltage	V_{RWM}	5	V
Peak pulse power dissipation($t_p=8/20\mu s$)	P_{PP}	260	W
Peak pulse current($t_p=8/20\mu s$)	I_{PP}	15	A
Junction temperature	T_J	150	℃
Storage and operating temperature	$T_{STG} T_{amb}$	-55 to+150	℃
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	480	℃/W

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

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse breakdown voltage	V_{BR}	$I_R=1\text{mA}$	6.2	6.6	7.3	V
Reverse leakage current	I_R	$V_{RWM}=5\text{V}$	-	-	1	μA
Diode capacitance	C_d	$V_R=0\text{V}, f=1\text{MHz}$	-	190	-	pF
Clamping voltage	$V_{(CL)}$	$I_{PP}=5\text{A}$	-	8.5	9.8	V
		$I_{PP}=15\text{A}$	-	11.2	15.5	V

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

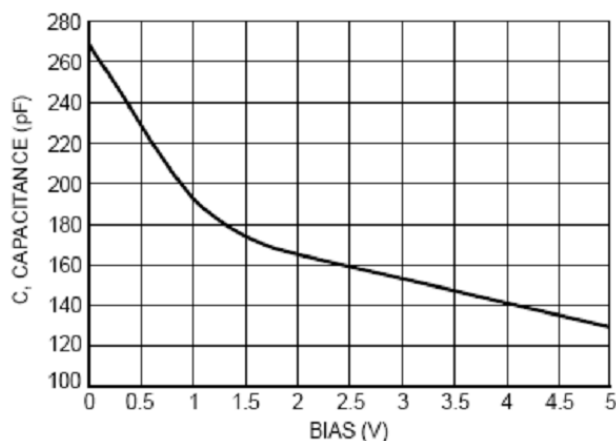


Figure 1. Typical Capacitance versus Bias Voltage

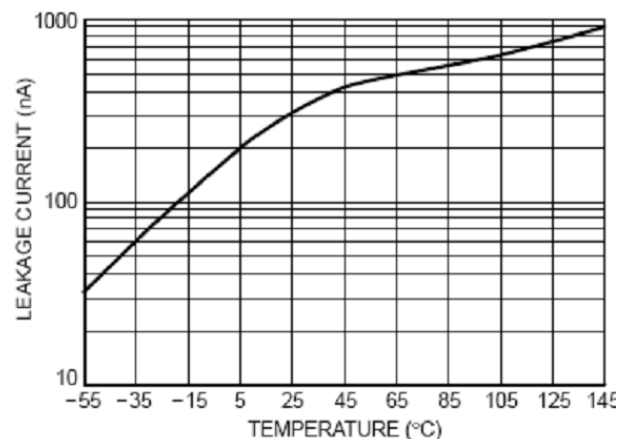


Figure 3. Typical Leakage Current versus Temperature

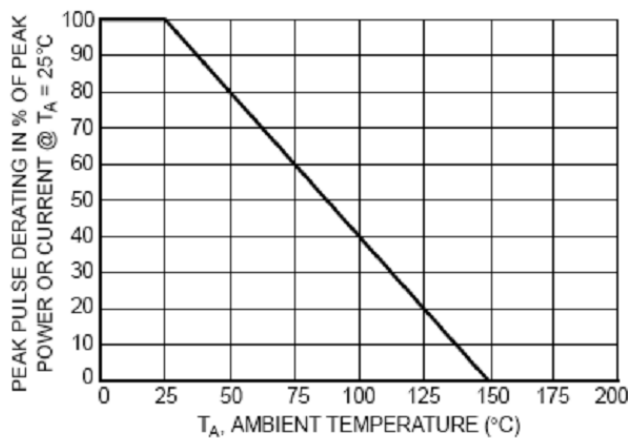


Figure 3. Pulse Derating Curve

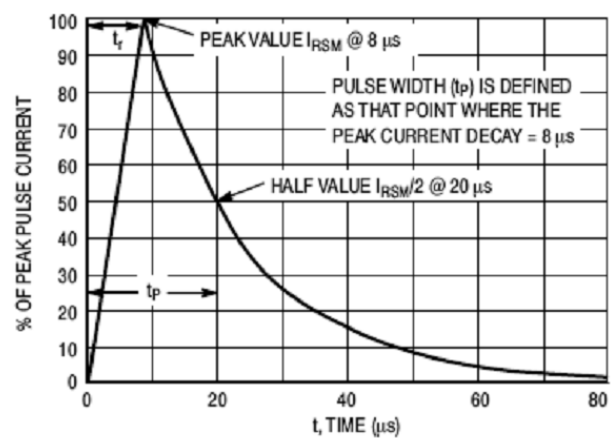


Figure 4. $8 \times 20 \mu\text{s}$ Pulse Waveform

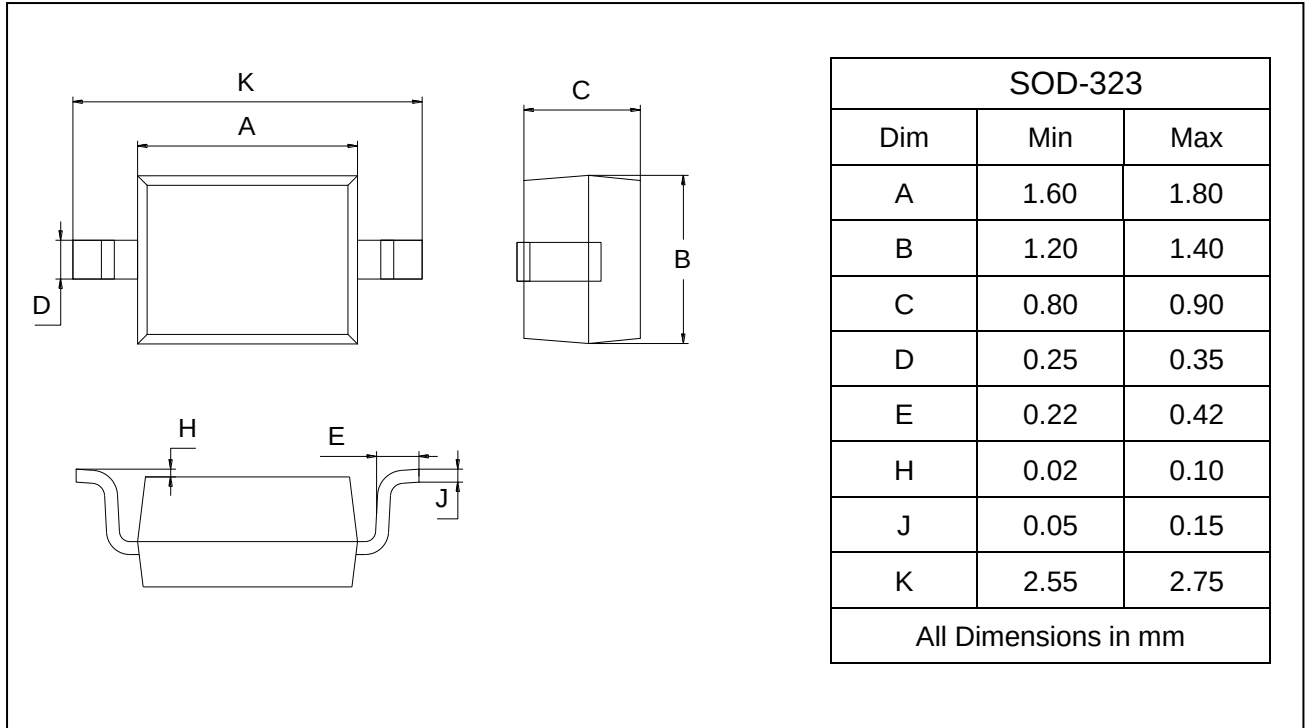
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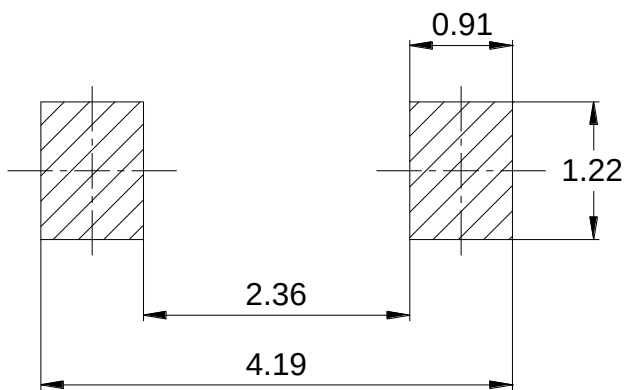
PACKAGE OUTLINE

Plastic surface mounted package

SOD-323



SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

Device	Package	Shipping
TGESD5V0D3	SOD-323	3000 pcs / Tape & Reel