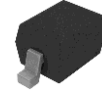
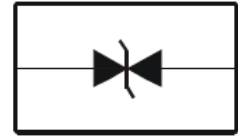


Features

- Low leakage current
- Working voltage: $V_{RWM} = 5V$
- ESD / transient protection of high speed data lines
- IEC 61000-4-2 (ESD): $\pm 30\text{ kV}$ (air), $\pm 30\text{ kV}$ (contact)
- Halogen free
- Qualified to AEC-Q101 standards for high reliability

HF



Mechanical Data

- Case: SOD-323
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

SOD-323

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
TGESD5V0S2B3	SOD-323	3000 pcs / Tape & Reel	S2B

Maximum Ratings (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
IEC 61000-4-2; ESD (Air)	V_{ESD-A}	± 30	kV
IEC 61000-4-2; ESD (Contact)	V_{ESD-C}	± 30	kV
Peak Pulse Power ($t_p = 8/20\mu\text{s}$)	P_{PP}	108	W
Peak Pulse Current ($t_p = 8/20\mu\text{s}$)	I_{PP}	9	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Operating Temperature	T_J	$-55 \sim +125$	$^\circ\text{C}$
Storage Temperature	T_{STG}	$-55 \sim +150$	$^\circ\text{C}$

Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Stand-off Voltage	V_{RWM}		-	-	5	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	6	-	-	V
Reverse Leakage Current	I_R	$V_{RWM} = 5\text{V}$	-	-	200	nA
Clamping Voltage	V_C	$I_{PP} = 1\text{A}$, ($t_p = 8/20\mu\text{s}$)	-	-	8	V
		$I_{PP} = 9\text{A}$, ($t_p = 8/20\mu\text{s}$)	-	-	12	V
Diode Capacitance	C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$	-	15	20	pF

Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

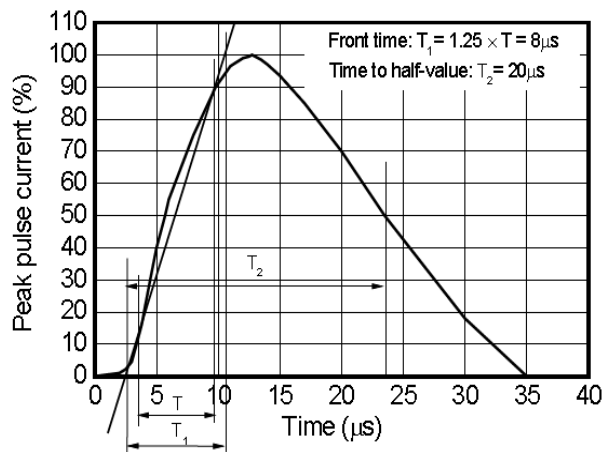


Fig. 1 8/20 μs waveform per IEC61000-4-5

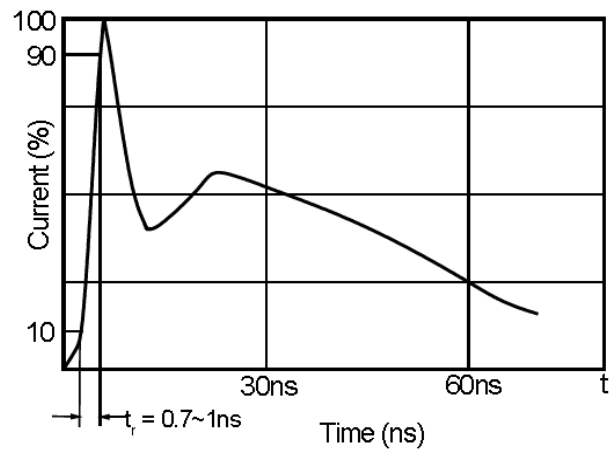


Fig. 2 ESD pulse waveform according to IEC61000-4-2

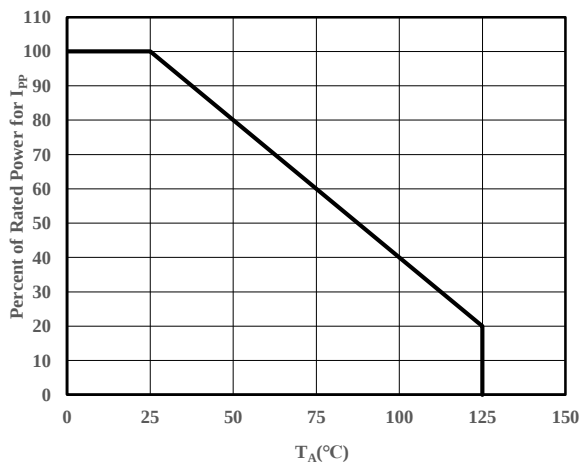
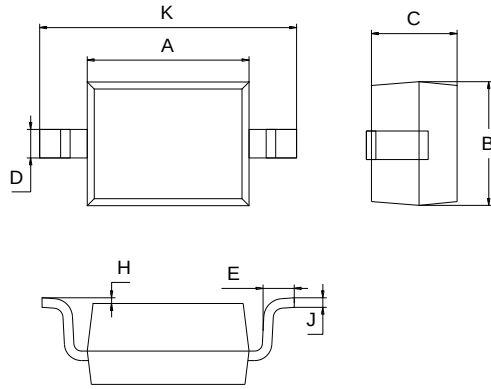


Fig. 3 Power Derating Curve

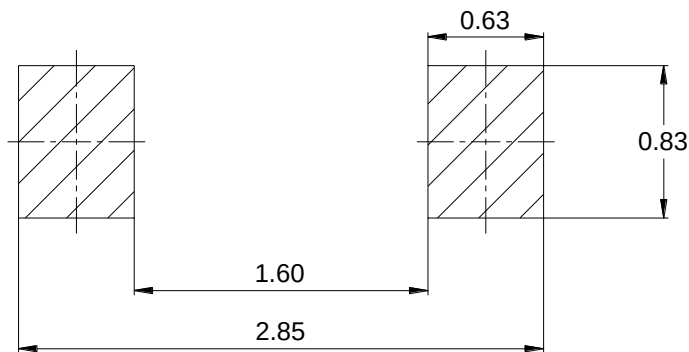
Package Outline Dimensions (Unit: mm)



SOD-323		
Dimension	Min.	Max.
A	1.60	1.80
B	1.20	1.40
C	0.80	0.90
D	0.25	0.35
E	0.22	0.42
H	0.02	0.10
J	0.05	0.15
K	2.55	2.75

Package Outline Dimensions (Unit: mm)

SOD-323



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