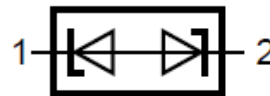


Features

- ESD protection of one automotive LIN-bus line
- Max. peak pulse power: $P_{PP} = 160W$ at $t_p = 8/20\mu s$
- Low clamping voltage: $V_{CL} = 40V$ at $I_{PP} = 1A$
- Halogen free
- Qualified to AEC-Q101 standards for high reliability

HF

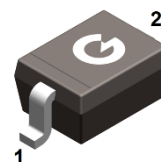


Typical Applications

- LIN-bus
- Automotive applications

Mechanical Data

- Case: SOD-323
- Molding compound, UL flammability classification rating 94V-0
- Terminals: Tin plated leads, solderable per MIL-STD-202, Method 208



SOD-323

Ordering Information

Part Number	Package	Shipping	Marking Code
TGESD1524VB3	SOD-323	3000pcs / Tape & Reel	AM

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

Characteristic	Symbol	Value	Units
Electrostatic discharge voltage (IEC 61000-4-2 contact discharge)	V_{ESD}	30	KV
(IEC 61000-4-2 air discharge)		30	
Peak pulse power dissipation($t_p=8/20\mu s$)	P_{PP}	160	W
Peak pulse current($t_p=8/20\mu s$)	I_{PP}	3	A

Thermal Characteristics

Parameter	Symbol	Value	Units
Junction temperature	T_J	-40 ~ +150	$^\circ C$
Storage and operating temperature	$T_{STG} T_{amb}$	-40 ~ +150	$^\circ C$

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

Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Units
Reverse standoff voltage	V_{RWM}	Pin1 to Pin2 Pin2 to Pin1	-	-	15 24	V
Reverse breakdown voltage	V_{BR}	Pin1 to Pin2@ $I_R=1\text{mA}$ Pin2 to Pin1@ $I_R=1\text{mA}$	17.1 25.4	- -	20.7 30.7	V
Reverse leakage current	I_R	Pin1 to Pin2@ $V_{RWM}=15\text{V}$ Pin2 to Pin1@ $V_{RWM}=24\text{V}$	- -	- -	1 1	μA
Clamping voltage	V_C	Pin1 to Pin2 $I_{PP}=1\text{A}$ $I_{PP}=5\text{A}$	- -	- -	30 40	V
		Pin2 to Pin1 $I_{PP}=1\text{A}$ $I_{PP}=3\text{A}$	- -	- -	45 55	V
Diode capacitance	C_d	$V_R=0\text{V}$, $f=1\text{MHz}$	-	-	17	pF

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

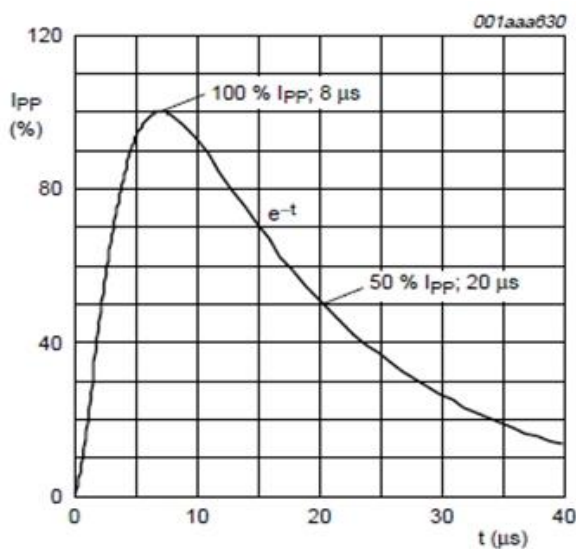


Fig1. 8/20us pulse waveform according to IEC61000-4-5

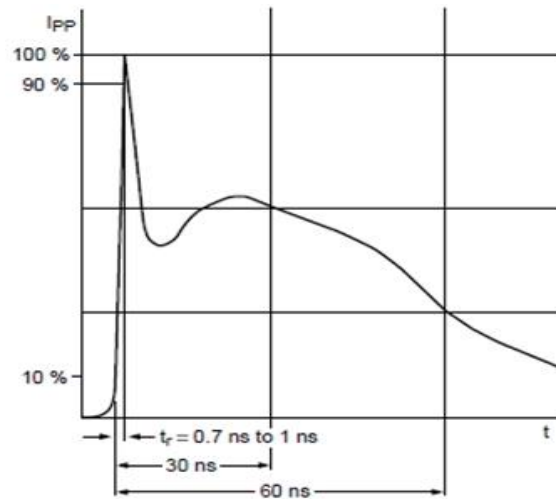
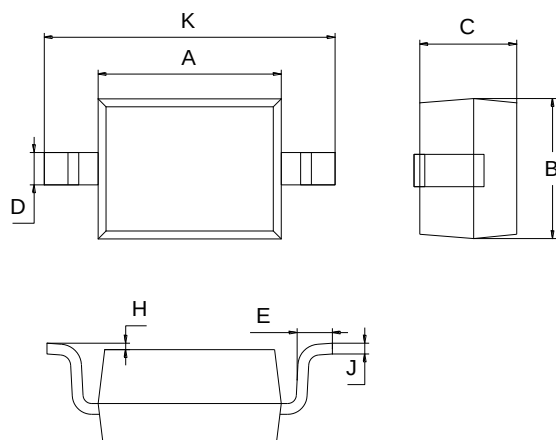


Fig2. ESD pulse waveform according to IEC61000-4-2

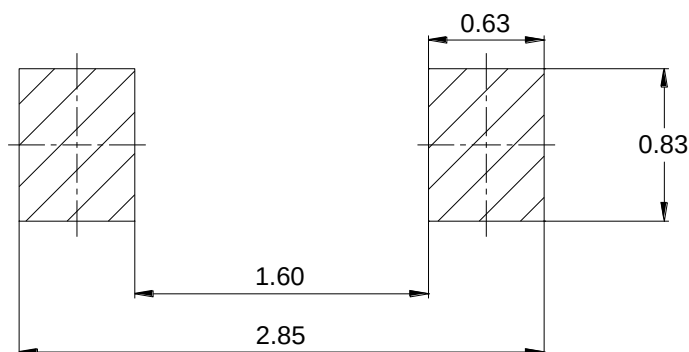
Package Outline Dimensions (unit: mm)

SOD-323



SOD-323		
Dim	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

Mounting Pad Layout (unit: mm)



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