

ESD5Z24

Transient Voltage Suppressors ESD Protection Diode

General description

Silicon Diode in a SOD-523 Plastic Package.

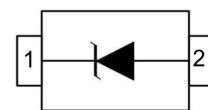
SOD-523 Package



FEATURES

- Working Voltage: 24V
- Low Leakage Current
- IEC61000-4-2 Level 4 ESD Protection
- RoHS Compliant
- Green EMC

Matte Tin(Sn) Lead Finish



Device Marking: 5S

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

Parameter	Symbol	Value	Units
Total Power Dissipation on FR-5 Broad	P_D	150	mW
Storage Temperature	T_{stg}	-55 to +150	°C
Operating Temperature	T_{opt}	-55 to +125	°C
IEC61000-4-2 Air IEC61000-4-2 Contact	V_{ESD}	± 15 ± 8	kV

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

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				24	V
V_{BR}	Reverse Breakdown Voltage	$I_T = 1\text{mA}$	26			V
I_R	Reverse Leakage Current	$V_{\text{RWM}} = 24\text{V}$			1	µA
V_c	Clamping Voltage	$I_{\text{PP}} = 1\text{A}$, $t_p = 8/20\mu\text{s}$			35	V
C_J	Junction Capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$			50	pF

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Ratings And Characteristic Curves

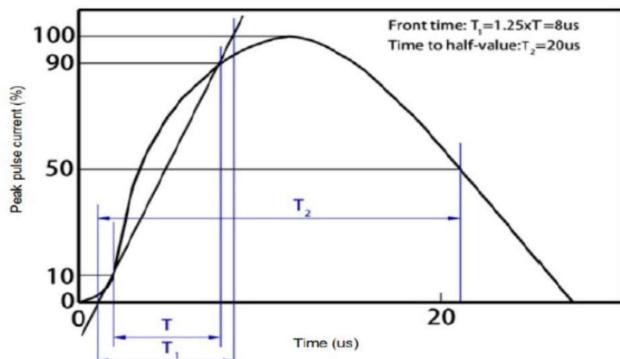


Fig 1 8/20μs Waveform per IEC61000-5

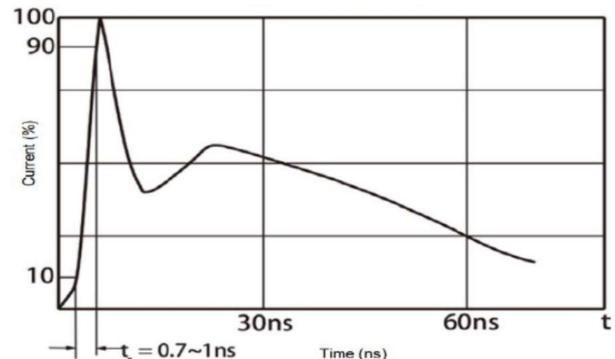


Fig 2 Contact Discharge Current Waveform per IEC 61000-4-2

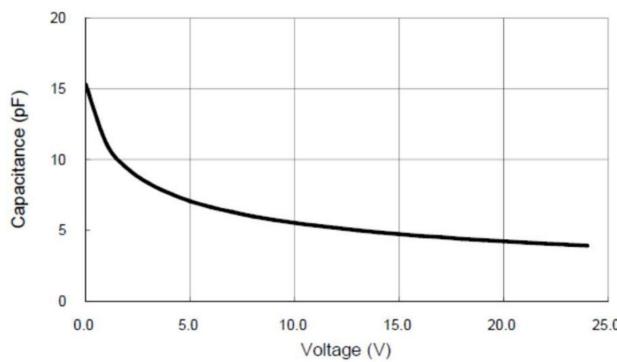


Fig 3 Voltage vs Capacitance

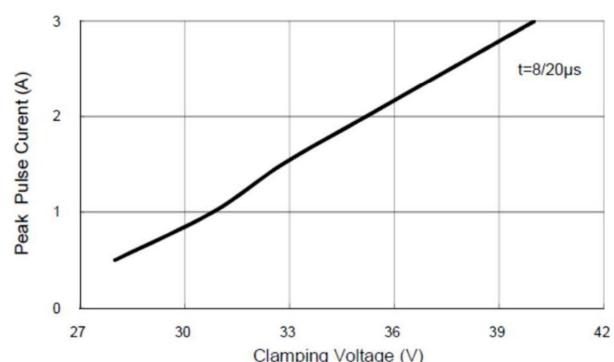
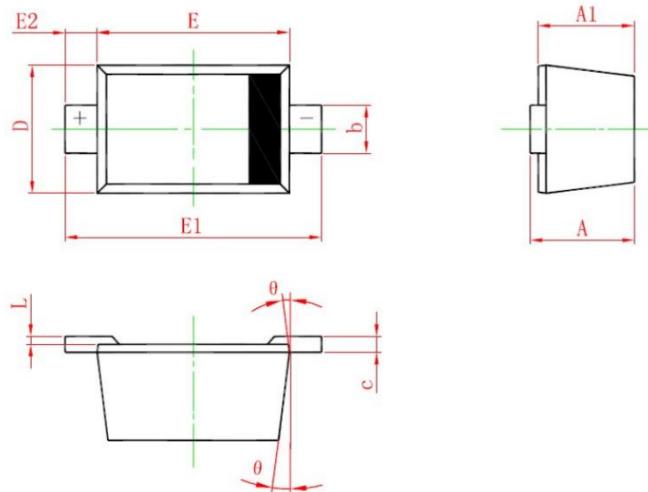


Fig 4 Clamping Voltage vs Peak Pulse Current

SOD-523 PACKAGE OUTLINE Plastic surface mounted package



Symbol	Dimensions in millimeters		Dimensions in inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.031
A1	0.500	0.700	0.020	0.028
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.750	0.850	0.030	0.033
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7° REF		7° REF	

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