

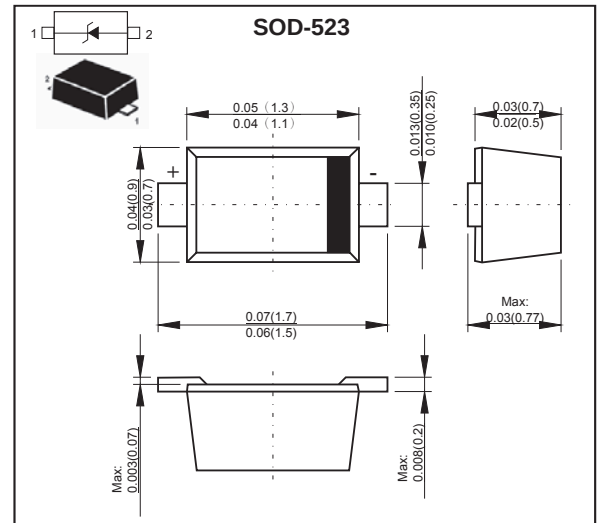
Electrostatic discharge Protection Devices(ESD)

FEATURES

- Bi-Directional Transient Voltage Suppressor
- Low capacitance and Low Leakage
- ESD Protection, IEC61000-4-2 Level 4
- SOD923F Thin SMD
- RoHS compliant
- UL-94 V-0 / Green EMC
- Matte Tin Lead finish (Pb-Free)

MECHANICAL DATA

- Case: SOD-523 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Symbol	Parameter	Value	Units
I_{PP}^{*1}	Maximum Reverse Peak Pulse Current	5.0 ^{*1}	A
$V_{ESD-Air}$	ESD Voltage IEC61000-4-2 Air	±15	kV
$V_{ESD-contact}$	ESD Voltage IEC61000-4-2 Contact	±8	kV
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 to +150	°C
P_D	Power Dissipation	200	mW

*1 $t_p = 8/20 \mu s$

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ C$ unless otherwise noted)

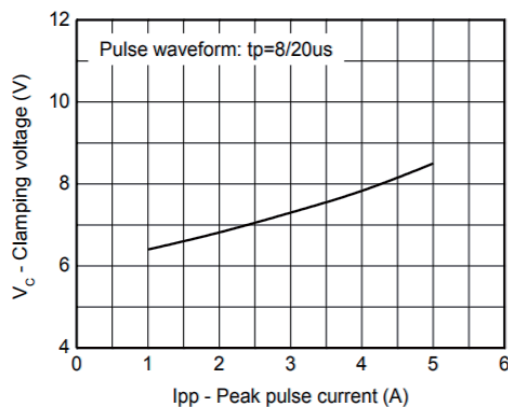
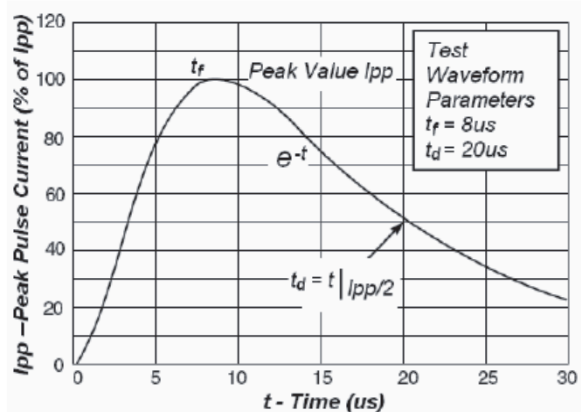
Symbol	Parameter	Conditions	Min	Typ	Max	Units
V_{RWM}	Reverse Working Peak Voltage	—			5.0	V
V_{BR}	Reverse Breakdown Voltage Pin 1 to 2	$I_T = 1mA$	5.6		8.2	V
I_R	Reverse Current	$V_{RWM} = \pm 5V$			1.0	μA
V_C	Clamping Voltage	$I_{PP}=1A$			8	V
V_C	Clamping Voltage	$I_{PP}=5A$			11	V
C_D	Diode Capacitance	$V_R = 0V, f = 1MHz$		13		pF

Marking

ESDB5.0ECM5	5C
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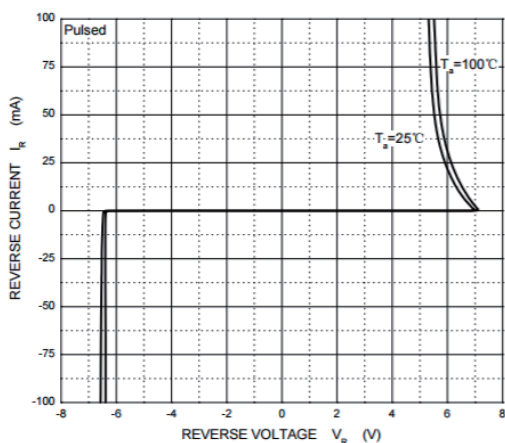
RATINGS AND CHARACTERISTIC CURVES

Typical Characteristics

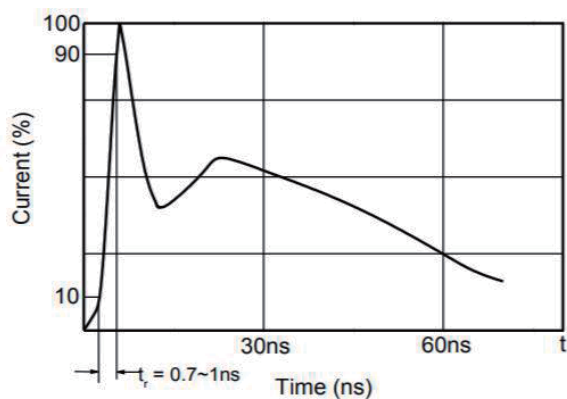


Clamping voltage vs. Peak pulse current

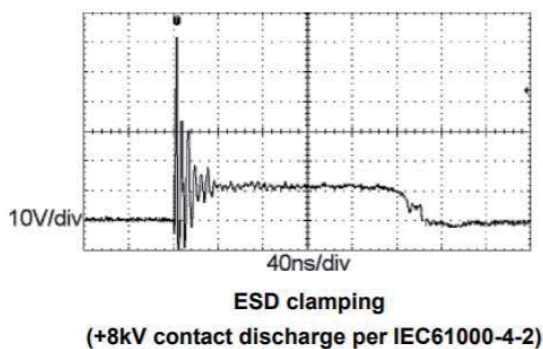
Pulse Waveform



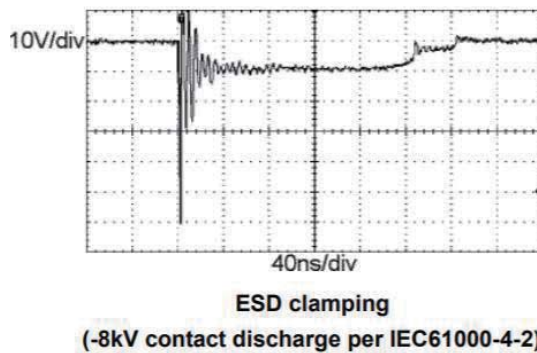
Reverse Characteristics



Contact discharge current waveform per IEC61000-4-2



ESD clamping
(+8kV contact discharge per IEC61000-4-2)



ESD clamping
(-8kV contact discharge per IEC61000-4-2)