

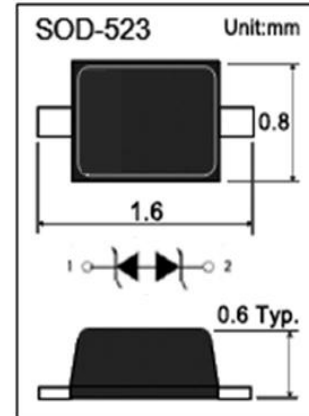
Features

- Bi-Directional Transient Voltage Suppressor
- Low capacitance and Low Leakage
- ESD Protection, IEC61000-4-2 Level 4
- SOD523 Thin SMD
- RoHS compliant
- UL-94 V-0 / Green EMC
- Matte Tin Lead finish (Pb-Free)

Device Marking Code

- Marking:5C

Package



Maximum Ratings(Ta = 25 °C)

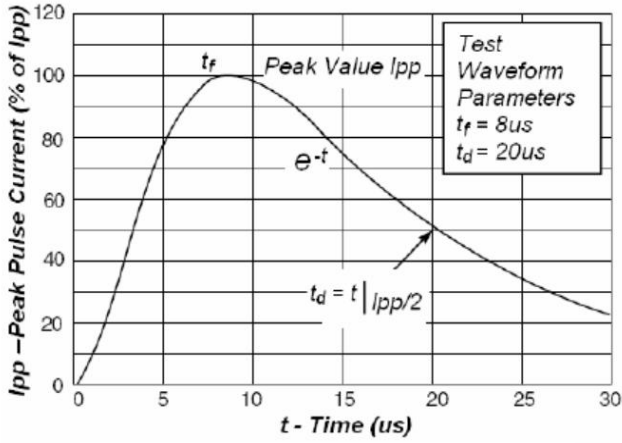
Symbol	Parameter	Value	Units
I_{PP}^{*1}	Maximum Reverse Peak Pulse Current	5.0 ^{*1}	A
$V_{ESD-Air}$	ESD Voltage IEC61000-4-2 Air	±15	kV
$V_{ESD-contact}$	ESD Voltage IEC61000-4-2 Contact	±8	kV
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 to +150	°C
P_D	Power Dissipation	200	mW

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

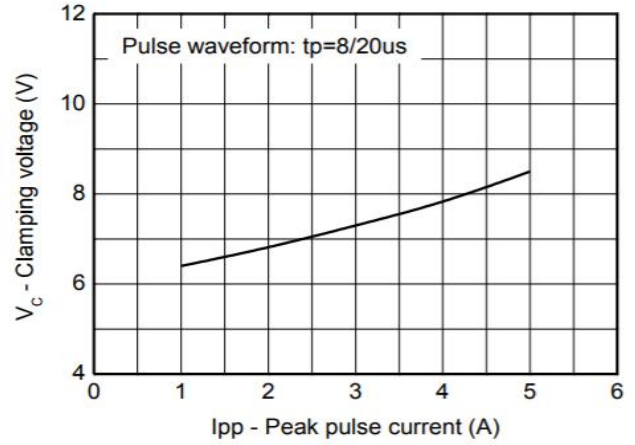
Electrical Characteristics(Ta = 25 °C)

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	$I_{pp}=5A$			11	V
C_D	Diode Capacitance	$V_R = 0V, f = 1MHz$		13		pF

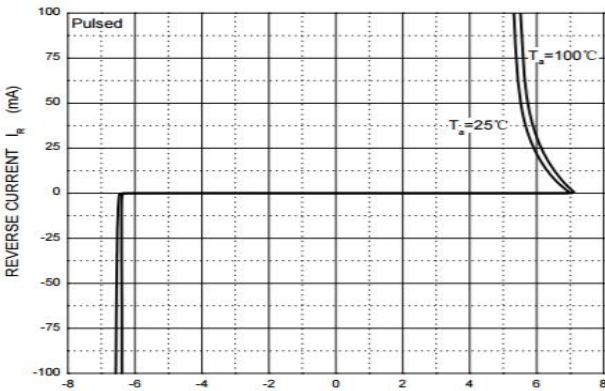
Typical Characteristics



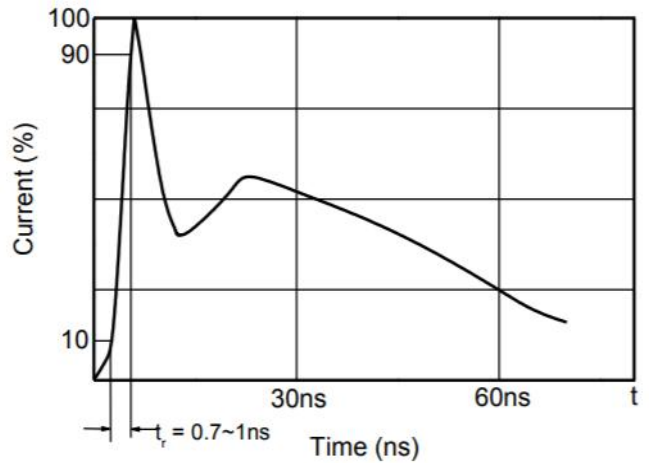
Pulse Waveform



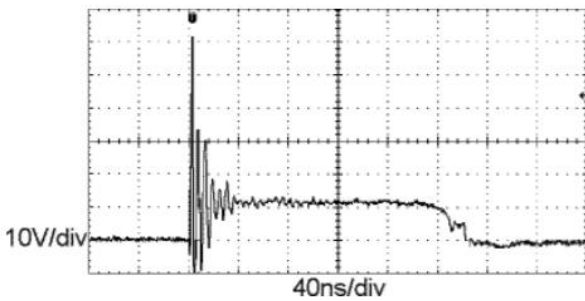
Clamping Voltage VS. Peak Pulse Current



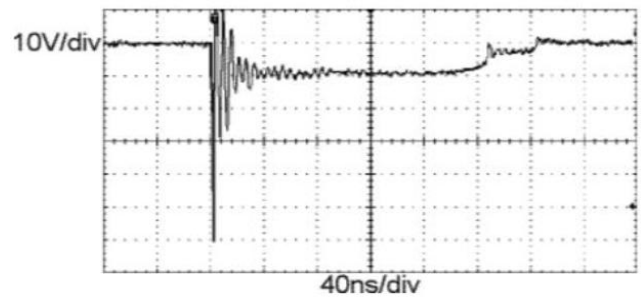
Reverse Voltage V_R (V)
Reverse Characteristics



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

Ordering Information

Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
ESD5Z5CB	SOD523	Tape & Reel 8000pcs /7" Reel	8 mm	4 mm	Conductive	

Package Dimensions

Package outline : SOD-523F

Unit	A	A1	b	c	D	E	E1	E2	L	θ
Max.	0.70	0.70	0.35	0.15	0.85	1.30	1.70	0.25	0.07	7° REF.
Min.	0.51	0.50	0.25	0.08	0.75	1.10	1.50	0.15	0.01	

SOD523 Package Outline

Land Pattern Recommendation

Note:

1. Halogen free, EMC
2. Pb free solder
3. Lead thickness includes solder plating
4. Lead frame: Cu
5. Other Tolerance: ± 0.05
6. Dimensions are exclusive of Burrs, Mold Flash and Tie Bar extrusions
7. Unit: mm