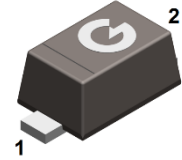


Features

- ESD / transient protection of high speed data lines
 - IEC 61000-4-2 (ESD): ± 30 kV (air), ± 30 kV (contact)
- Working voltage: $V_{RWM} = 5.6V$
- Low clamping voltage
- RoHS compliant with Halogen-free

HF

Cathode 1 Anode 2



SOD-523

Mechanical Data

- Case: SOD-523
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
SD5V6X	SOD-523	3000 pcs / Tape & Reel	5.6

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

Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8 / 20\mu s$)	P_{PP}	350	W
Reverse Working Voltage	V_{RWM}	5.6	V
ESD According to IEC61000-4-2 Air	V_{ESD}	± 30	kV
ESD According to IEC61000-4-2 Contact Discharge	V_{ESD}	± 30	kV

Thermal Characteristics

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

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	6	-	-	V
Reverse Leakage Current	I_R	$V_{RWM} = 5.6V$	-	-	1	μA
Clamping Voltage	V_C	$I_{PP} = 5A, t_p = 8/20\mu s$	-	-	9.8	V
		$I_{PP} = 24A, t_p = 8/20\mu s$	-	-	14.5	V
Junction Capacitance	C_J	$V_R = 0V, f = 1.0MHz$	-	165	200	pF

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

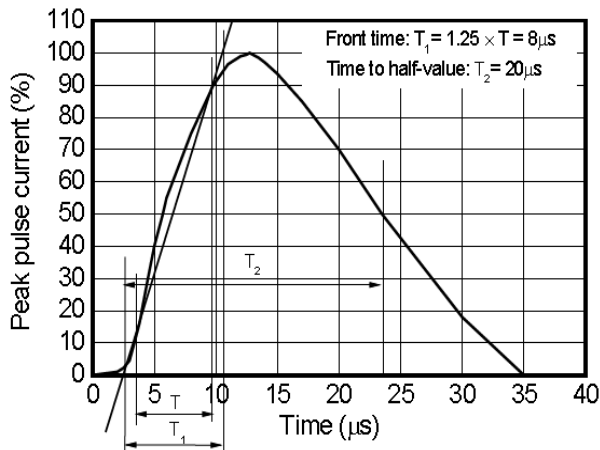


Fig 1 8/20 μs waveform per IEC61000-4-5

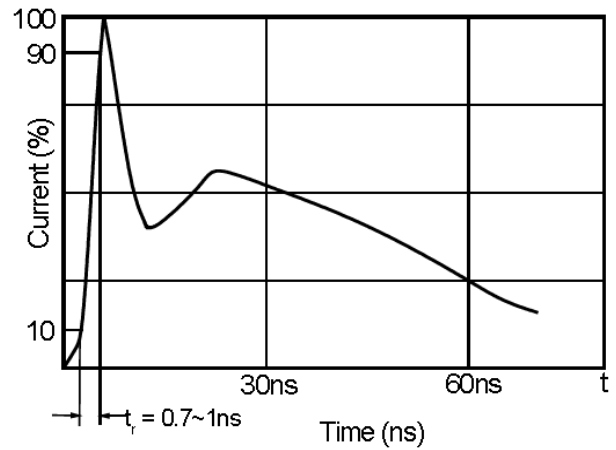


Fig 2 ESD pulse waveform according to IEC61000-4-2

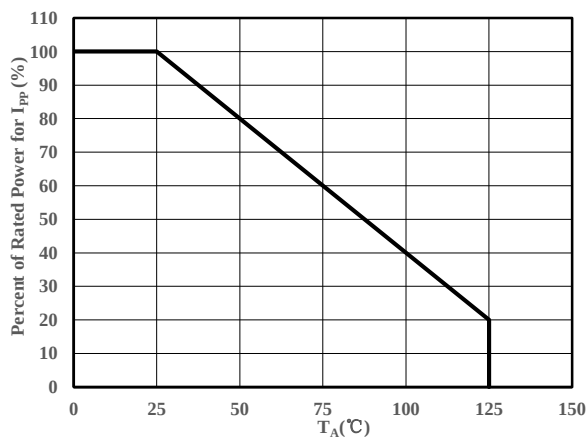


Fig 3 Power Derating Curve

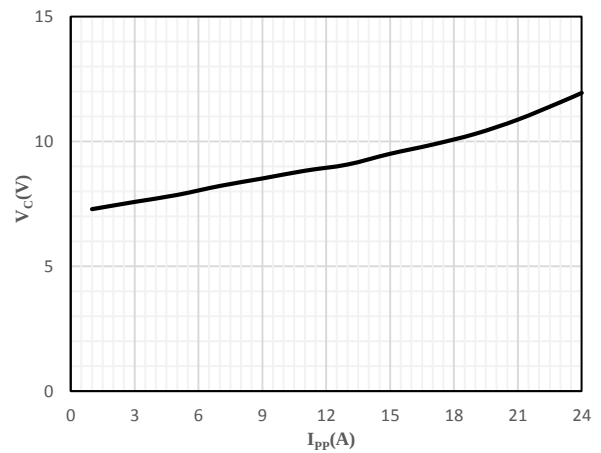


Fig 4 Clamping Voltage vs. Peak Pulse Current

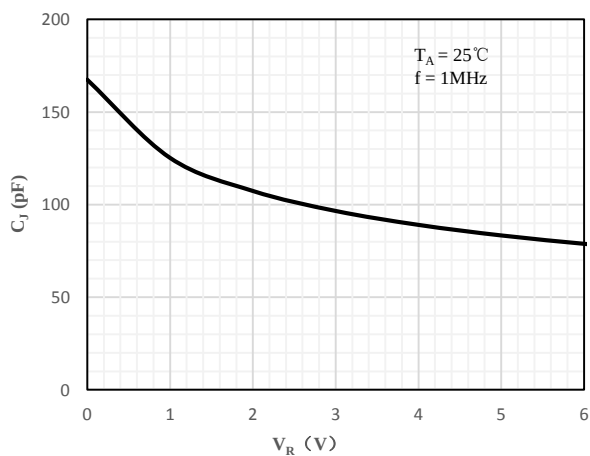
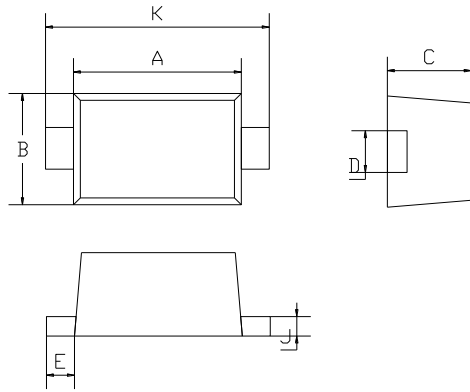


Fig 5 Junction Capacitance vs. Breakdown Voltage

Package Outline Dimensions (Unit: mm)



SOD-523		
Dimension	Min.	Max.
A	1.10	1.30
B	0.70	0.90
C	0.50	0.70
D	0.25	0.35
E	0.15	0.25
J	0.05	0.15
K	1.50	1.70

Package Outline Dimensions (Unit: mm)

SOD-523

