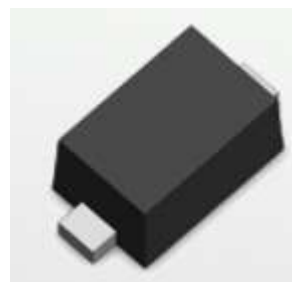


Bidirectional TVS Diode

Features

- Ultra low leakage: nA level
- Operating voltage: 12V
- Low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 30\text{kV}$
 - Contact discharge: $\pm 30\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning) 5A (8/20 μs)
- RoHS Compliant

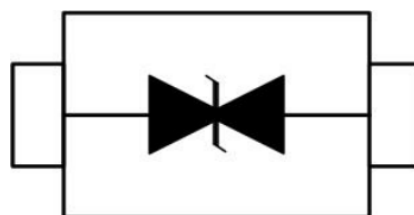
Dimensions SOD-523



Applications

- Cellular Handsets & Accessories
- Keypads, Side Keys, Audio Ports
- Portable Instrumentation'
- Notebooks, Desktops, and Servers
- Digital Lines
- Tablet PC

Pin Configuration



Mechanical Characteristics

- Package: SOD-523
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 3,000 pcs
- Reel Size: 7 inch
- Device Marking: AXB

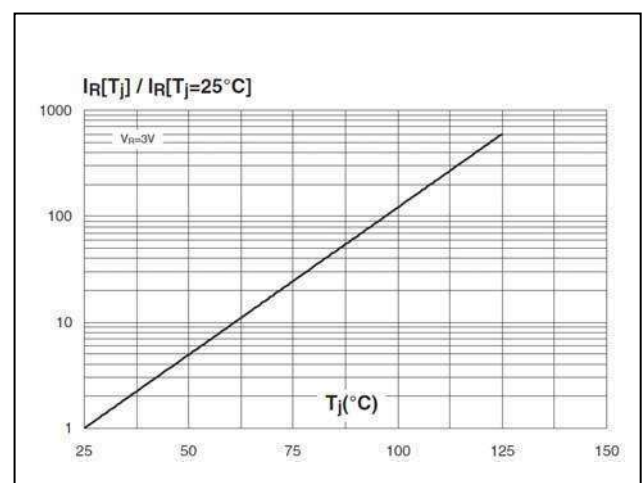
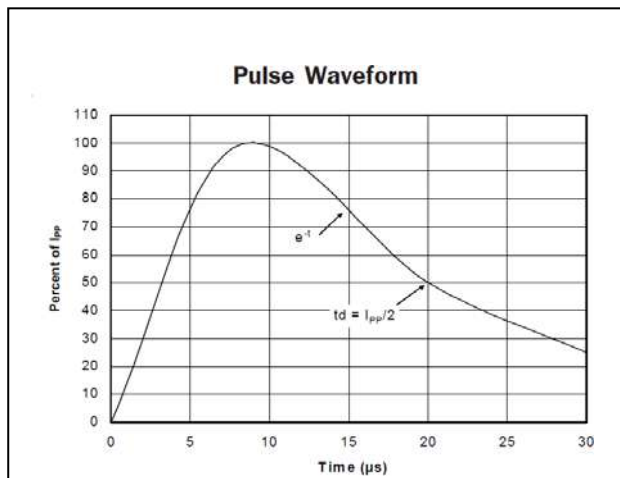
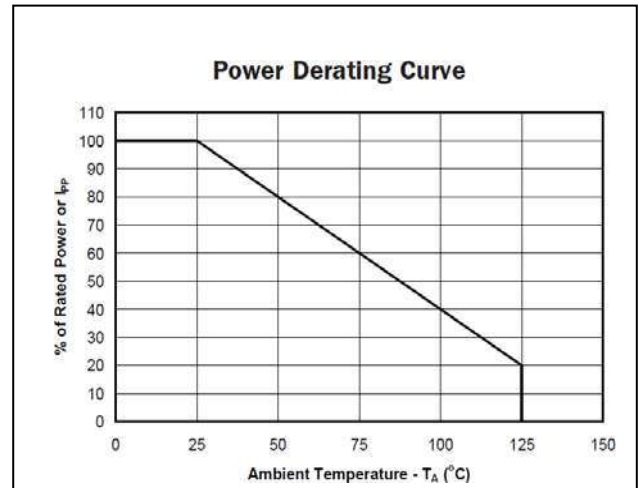
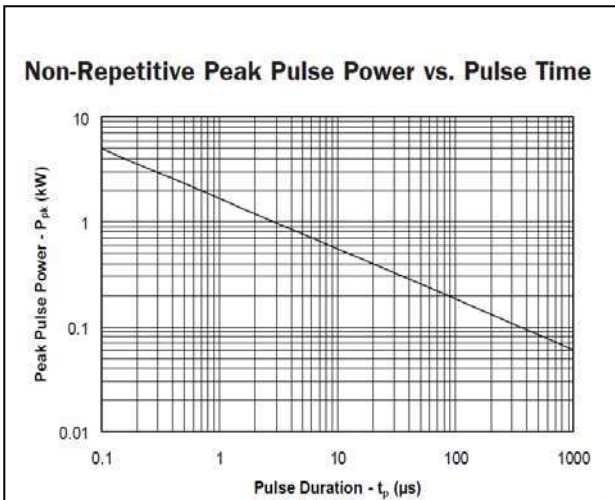
Absolute Maximum Ratings ($T_{\text{amb}}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	P _{pp}	150	W
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 30	Kv
ESD per IEC 61000-4-2 (Contact)		± 30	
Operating Temperature Range	T _J	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	T _{STJ}	-55 to +150	$^{\circ}\text{C}$

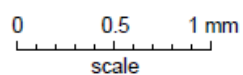
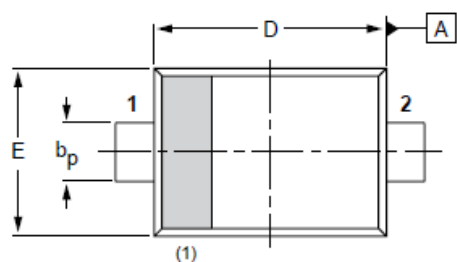
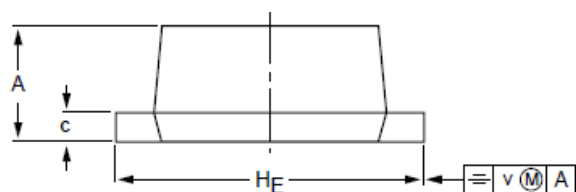
Electrical Characteristics(TA=25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				12	V
Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	13.2			V
Reverse Leakage Current	I_R	$V_{RWM} = 12\text{V}$			1	μA
Clamping Voltage	V_C	$I_{PP} = 1\text{A}$ (8 x 20 μs pulse)			19.8	V
Clamping Voltage	V_C	$I_{PP} = 5\text{A}$ (8 x 20 μs pulse)			25	V
Junction Capacitance	C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$		30		pF

Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)



SOD-523 Package Outline & Dimensions



DIMENSIONS (mm are the original dimensions)

UNIT	A	b _p	c	D	E	H _E	v
mm	0.65 0.58	0.34 0.26	0.17 0.11	1.25 1.15	0.85 0.75	1.65 1.55	0.1