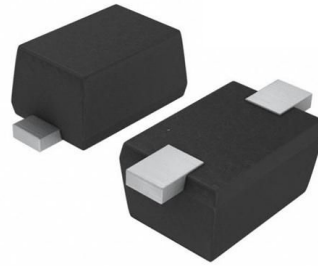


Features

- Protects one data or power line
- Working voltage: 3.3 V
- 2-pin SOD523 package
- RoHS compliant



IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD) $\pm 30\text{kV}$ contact $\pm 30\text{kV}$ air
- IEC 61000-4-5 (Lightning) 27A (8/20 μs)

SOD-523

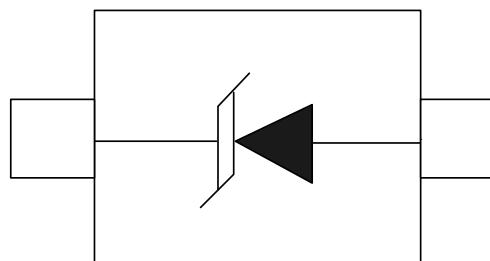
Applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds Portable
- Portable Instrumentation
- Digital Cameras
- Peripherals
- Audio Players
- Keypads, Side Keys, LCD Displays

Mechanical Characteristics

- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below

Schematic & PIN Configuration



SOD-523

Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8/20\mu s$ waveform)	P_{PP}	300	W
Peak Pulse Current (8/20 μs)	I_{PP}	27	A
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	$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}C$

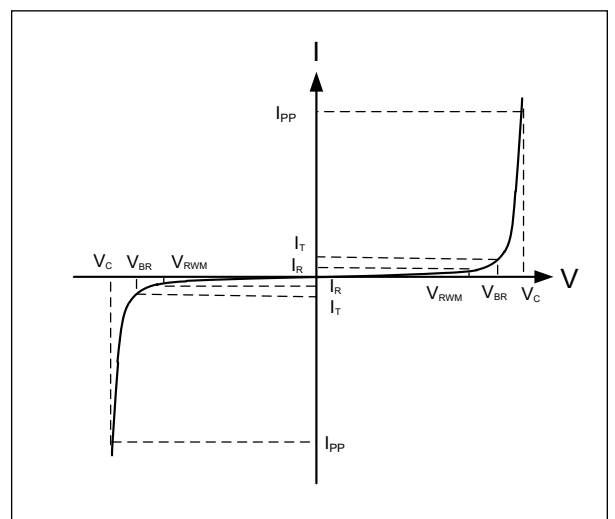
Electrical Characteristics

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				3.3	V
Breakdown Voltage	V_{BR}	$I_T = 1mA$	4.8			V
Reverse Leakage Current	I_R	$V_{RWM} = 3.3V$			45	μA
Clamping Voltage	V_C	$I_{PP} = 1A$ (8 x 20 μs pulse)		7		V
Clamping Voltage	V_C	$I_{PP} = 27A$ (8 x 20 μs pulse)			15	V
Junction Capacitance	C_J	$V_R = 0V$, $f = 1MHz$		150		pF

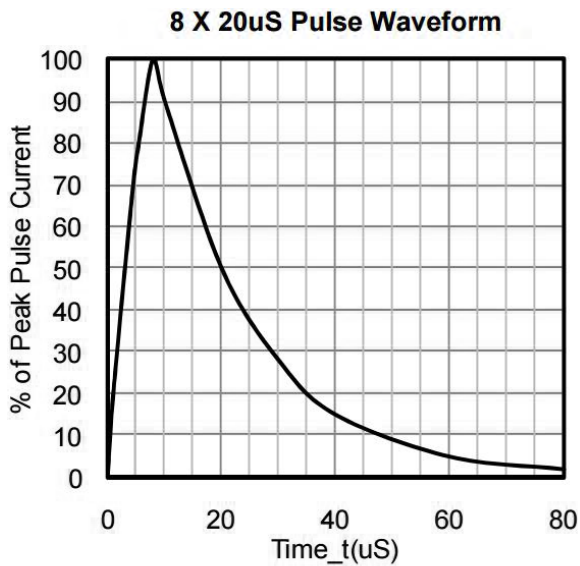
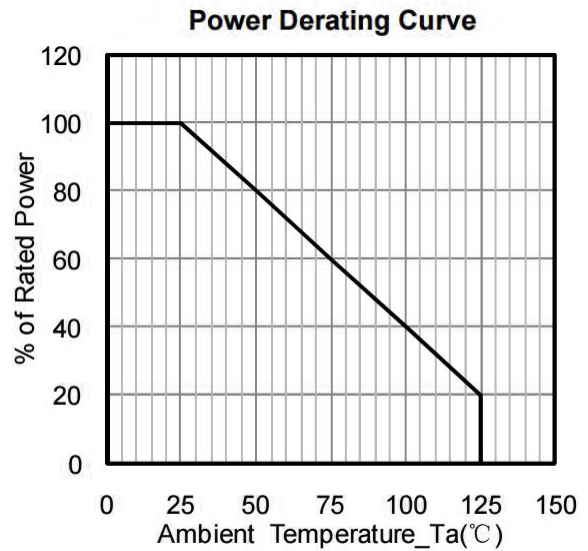
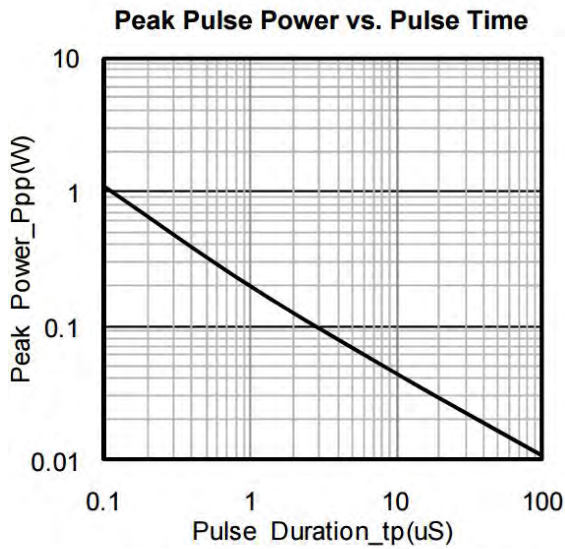
Electrical Parameters (TA = 25 $^{\circ}C$ unless otherwise noted)

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current

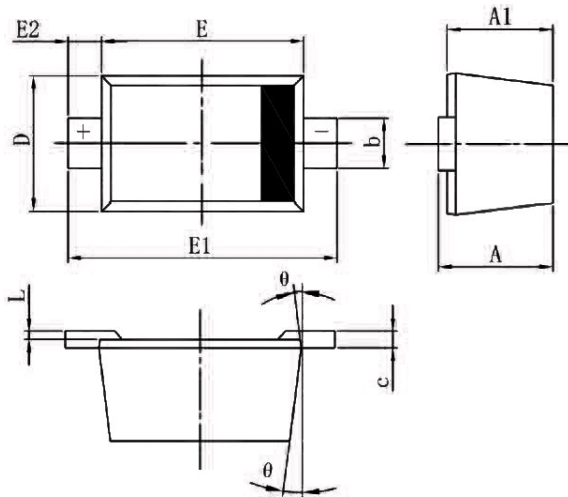
Note: 8/20 μs pulse waveform.



Typical Performance Characteristics

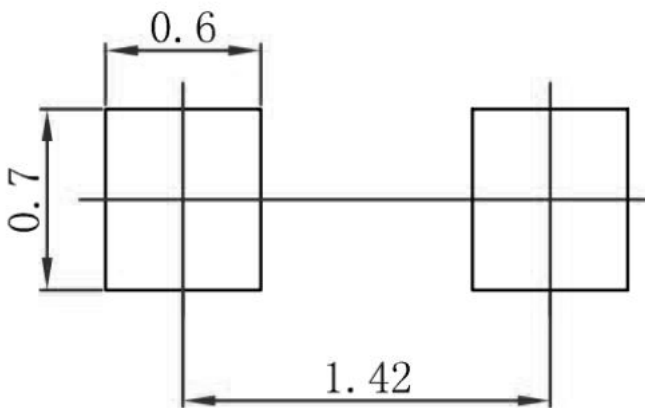


Package Mechanical Data



SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	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	0.20REF			0.008REF		
L	0.010	-	0.070	0.001	-	0.003
Φ	7°REF			7°REF		

Suggested Land Pattern



Package Information

Order code	Package	Base qty	Delivery mode
PTD522H150S3C30	SOD-523	3K	Tape and reel