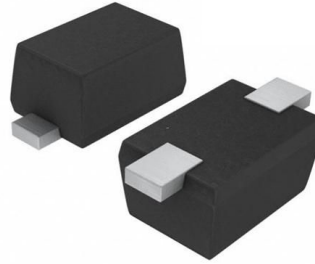


## Features

- Protects one data or power line
- Working voltage: 24V
- 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) 5A (8/20 $\mu\text{s}$ )

SOD-523

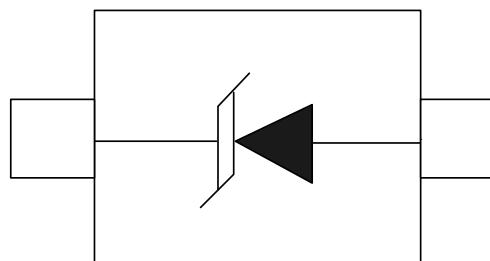
## Applications

- 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 $\mu s$ )	$I_{PP}$	5	A
ESD per IEC 61000-4-2 (Air)	$V_{ESD}$	$\pm 30$	kV
ESD per IEC 61000-4-2 (Contact)		$\pm 30$	
Operating Temperature Range	$T_J$	-55 to +125	$^{\circ}C$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^{\circ}C$

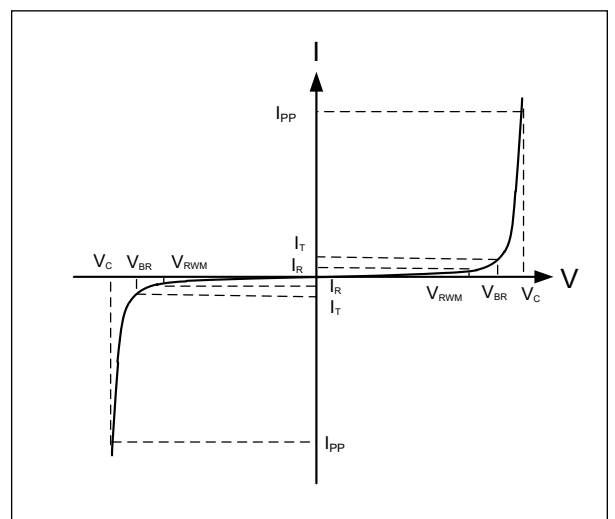
## Electrical Characteristics

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	$V_{RWM}$				24	V
Breakdown Voltage	$V_{BR}$	$I_T = 1mA$	27			V
Reverse Leakage Current	$I_R$	$V_{RWM} = 24V$			10	$\mu A$
Clamping Voltage	$V_C$	$I_{PP} = 1A$ (8 x 20 $\mu s$ pulse)		40		V
Clamping Voltage	$V_C$	$I_{PP} = 5A$ (8 x 20 $\mu s$ pulse)			60	V
Junction Capacitance	$C_J$	$V_R = 0V, f = 1MHz$		40		pF

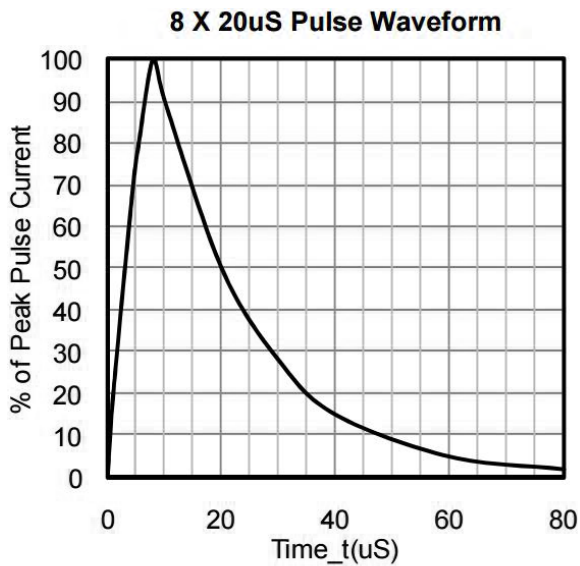
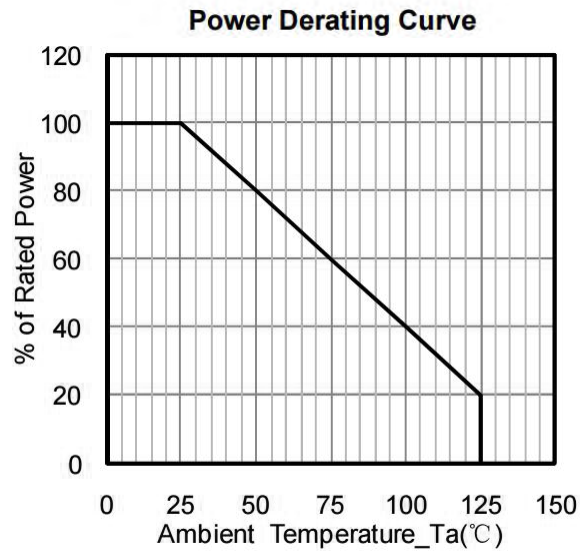
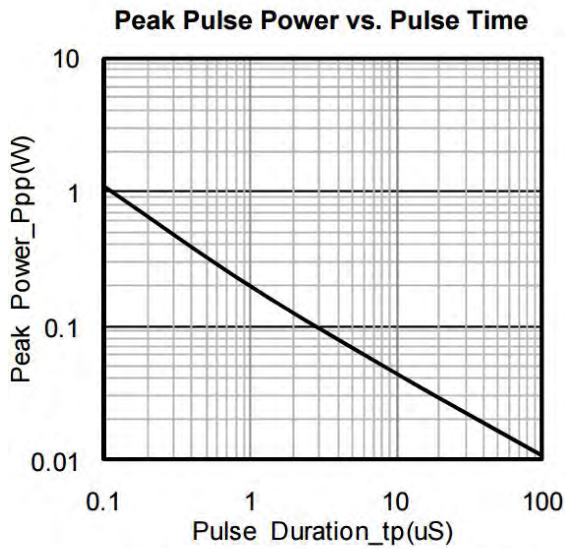
## Electrical Parameters (TA = 25 $^{\circ}C$ unless otherwise noted)

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

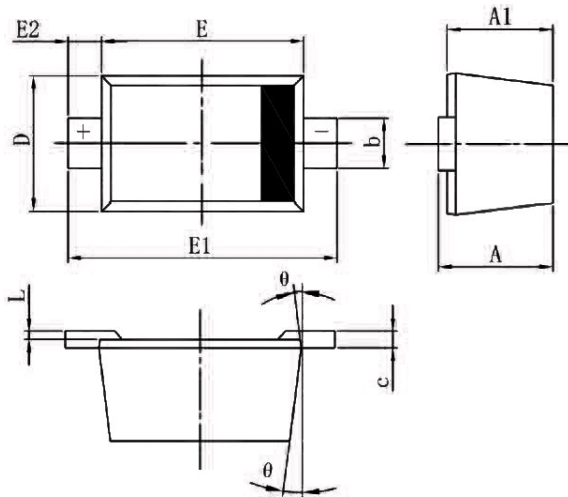
Note: 8/20 $\mu s$  pulse waveform.



## Typical Performance Characteristics

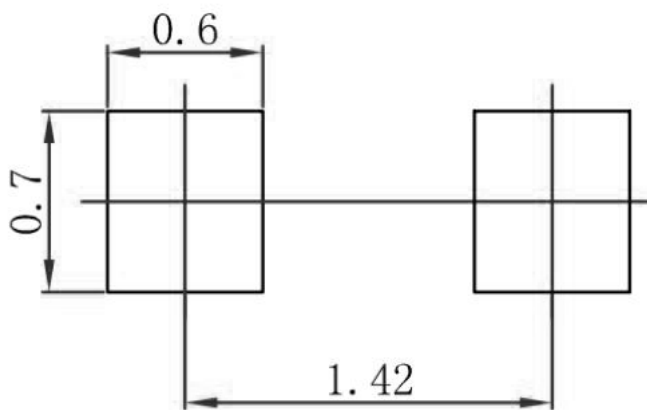


## Package Mechanical Data



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
PTD522H40S24C30	SOD-523	3K	Tape and reel