

Features

- Stand-off voltage: 15V Max
- Low leakage current
- Ultra low clamping voltage
- Compliant to Halogen-free

Main applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation
- Digital Cameras
- Peripherals
- Audio Players

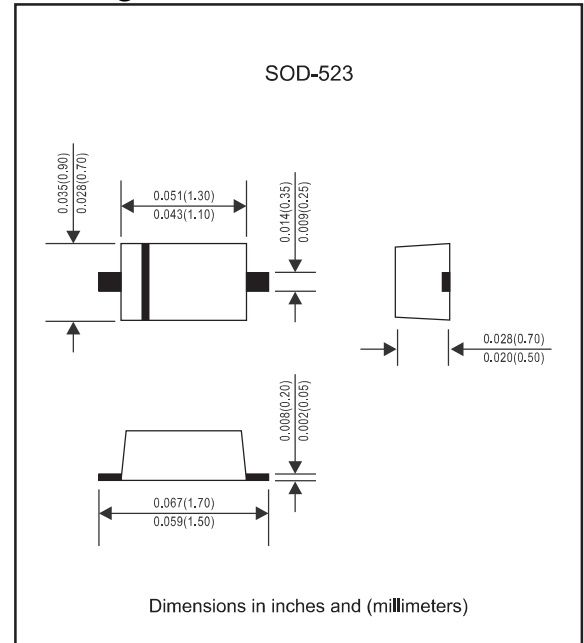
Protection solution to meet

- IEC61000-4-2(ESD): $\pm 30\text{kV}$ (contact)
- IEC61000-4-5(surge): 10A (8/20 μs)

MECHANICAL CHARACTERISTICS

- Package: SOD-523
- Case Material: "Green" Molding Compound
- Lead finish : Matte Tin

Package outline



Absolute maximum ratings

PARAMETER	SYMBOL	LIMITS	UNIT
Peak pulse power ($t_p = 8/20\mu s$)	P_{pk}	400	W
Peak pulse current ($t_p = 8/20\mu s$)	I_{PP}	10	A
ESD according to IEC61000-4-2 air discharge	V_{ESD}	± 30	KV
ESD according to IEC61000-4-2 contact discharge		± 30	
Junction temperature	T_J	155~125	$^{\circ}C$
Storage temperature	T_{STG}	-55~150	$^{\circ}C$

Electrical characteristics ($T_A=25^{\circ}C$ unless otherwise noted)

PARAMETER	Symbol	UNIT	Conditions	Min	Typ	Max
Reverse maximum working voltage	V_{RWM}	V				15
Reverse leakage current	I_R	μA	$V_{RWM} = 15V$			0.5
Reverse breakdown voltage	V_{BR}	V	$I_{BR} = 1mA$	16.5		
Clamping voltage ¹⁾	V_{CL}	V	$I_{PP} = 1A, t_p = 8/20\mu s$			24
		V	$I_{PP} = 10A, t_p = 8/20\mu s$			40
Junction capacitance	C_J	pF	$V_R = 0V, f = 1MHz$		45	55

Notes:

(1). Non-repetitive current pulse, according to IEC61000-4-5.

Ratings and V-I haracteristics curves

Fig.1 8/20 μ s waveform per IEC61000-4-5

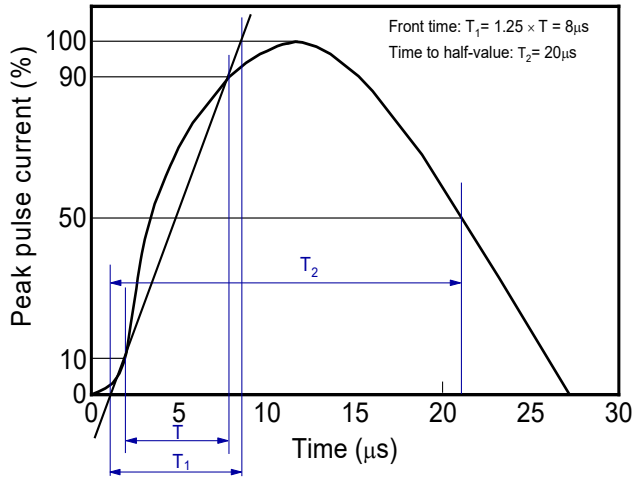


Fig.2 Contact discharge current waveform per IEC61000-4-2

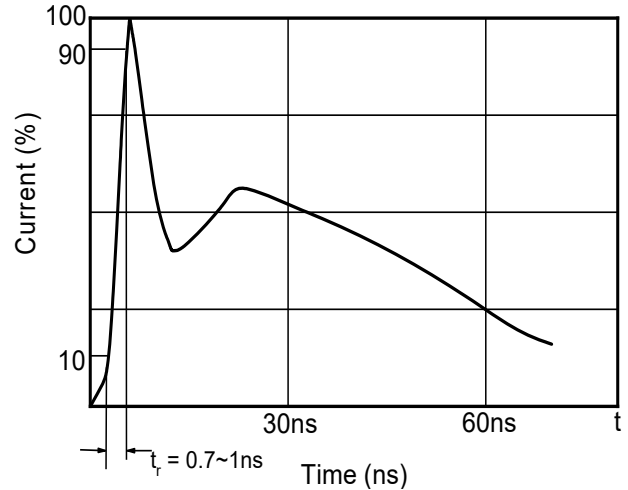


Fig.3 Clamping voltage vs. Peak pulse current

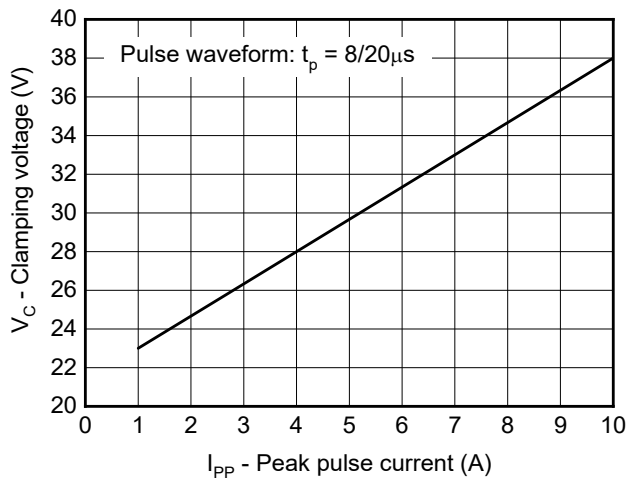


Fig.4 Capacitance vs. Reverse voltage

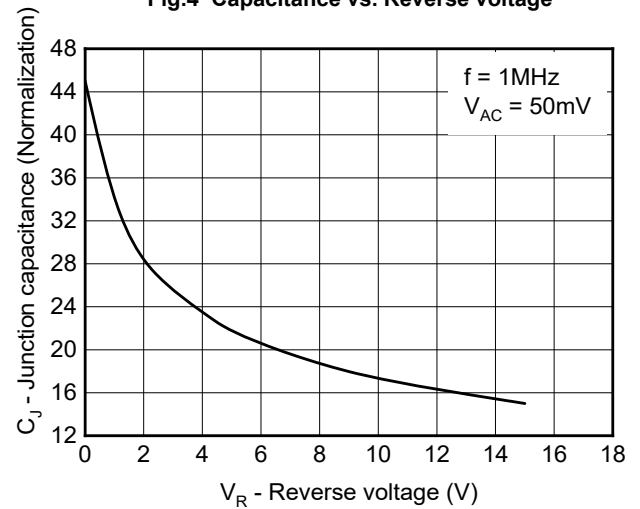


Fig.5 Non-repetitive peak pulse power vs. Pulse time

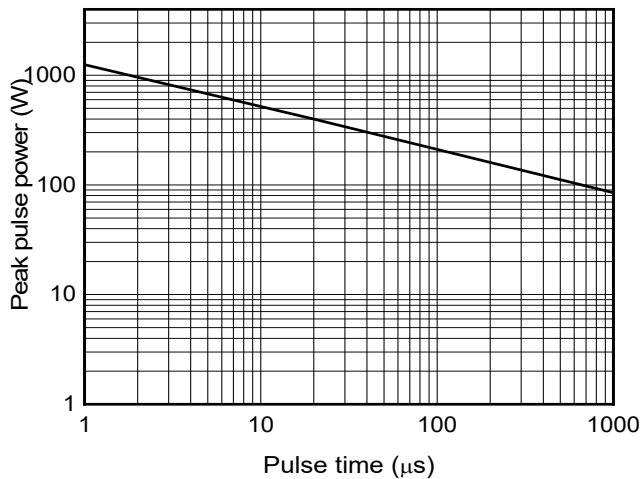
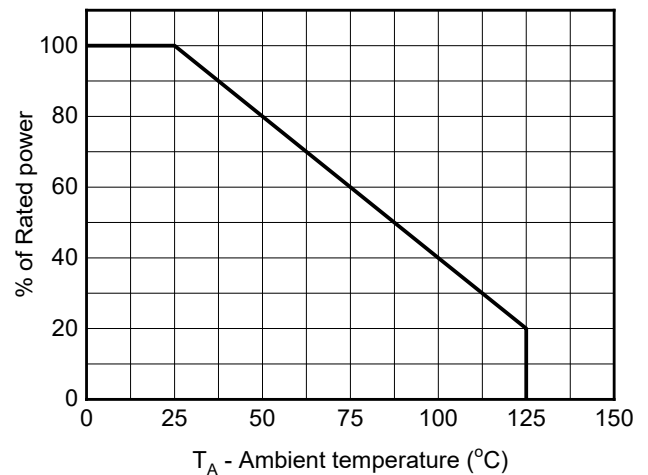
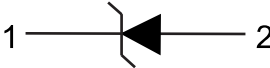


Fig.6 Power derating vs. Ambient temperature



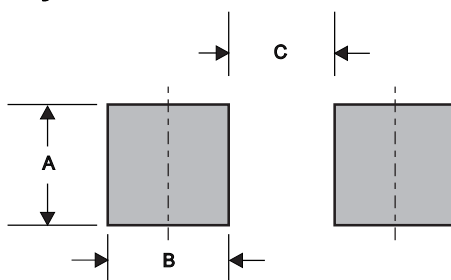
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
ESD5Z15A10	15.

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD-523	0.031 (0.80)	0.024 (0.60)	0.044 (1.12)