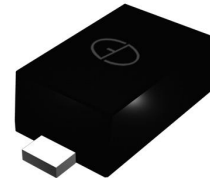


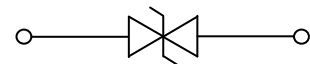
ESD Protection Diode

Features

- 58W peak pulse power ($t_p= 8/20\mu s$)
- SOD-523 package
- Fast response time, typically $< 1\text{ ns}$
- Excellent clamping voltage
- Low leakage current
- IEC 61000-4-2 $\pm 30\text{kV}$ (Air) ESD protection
- IEC 61000-4-2 $\pm 30\text{kV}$ (Contact) ESD protection
- IEC 61000-4-4 40A (5/50ns) EFT protection
- RoHS compliant



Marking: 5C SOD-523



Schematic Diagram

Applications

- Cellular phones
- Portable devices
- Digital cameras
- Power supplies

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Pulse Power ($T_P=8/20\mu\text{S}$)	P_{pp}	58	W
Peak Pulse Current ($T_P=8/20\mu\text{S}$)	I_{pp}	5.0	A
Operating Temperature	T_J	-55-+150	$^\circ\text{C}$
Storage temperature	T_{STG}	-55-+150	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse stand-off voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	5.78		7.82	V
Reverse Leakage Current	I_R	$V_R =5\text{V}$			1	μA
Clamping Voltage	V_C	$I_{PP}=5\text{A}$, $T_P=8/20\mu\text{s}$			11.6	V
Junction Capacitance	C_J	$V_R=0\text{V}, f=1\text{MHz}$		25		pF

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

Fig.1 Peak Pulse Power vs Pulse Time

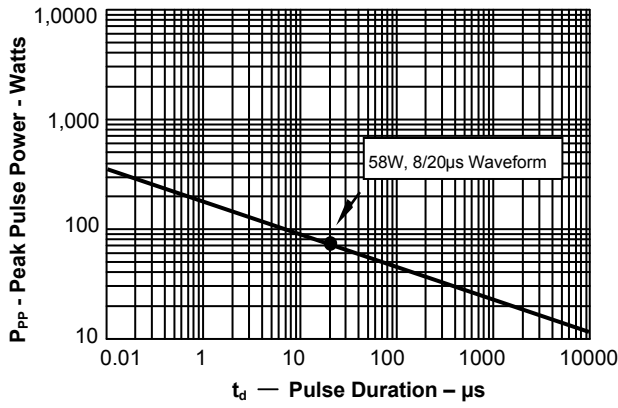


Fig.2 Pulse WaveForm-8/20μs

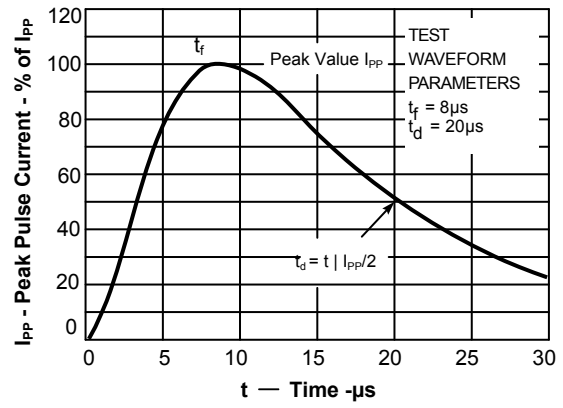


Fig.3 Power Derating Curve

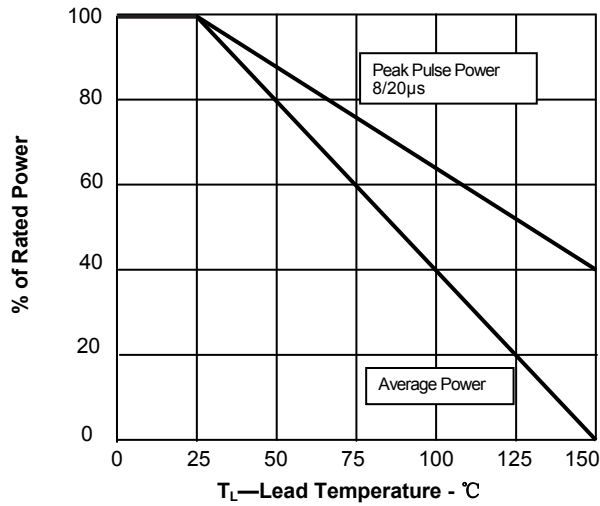
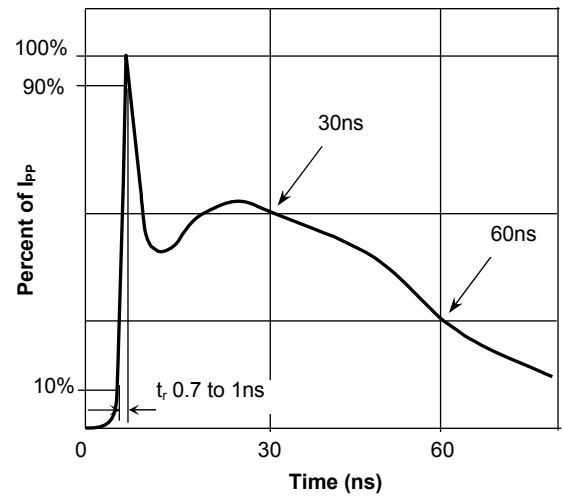
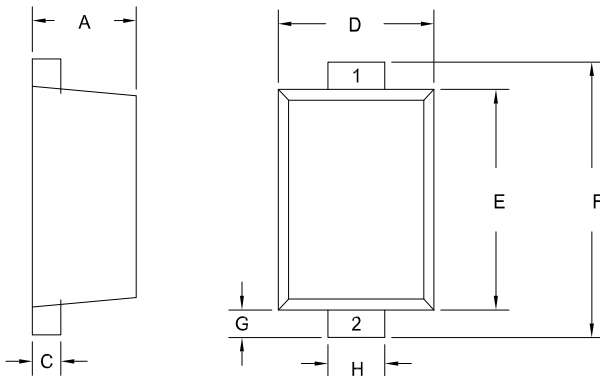


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)



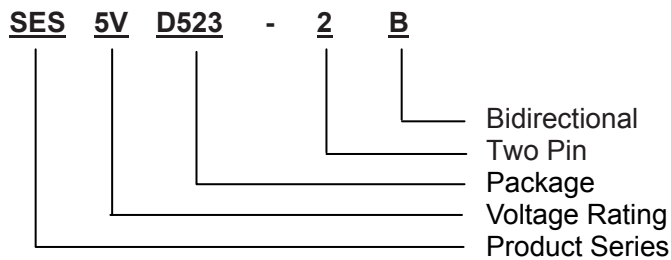
Package Outline Dimensions

in inches (millimeters)



Dim	millimeters	
	min	max
A	0.50	0.70
C	0.07	0.20
D	0.70	0.90
E	1.10	1.30
F	1.50	1.70
G	0.15	0.25
H	0.25	0.35

Part Number System



Revision History

Document Version	Date of release	Description of changes
Rev.A	2017.01.01	First issue

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