

DESCRIPTION

The ESD5Z5C is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time, make these parts ideal for ESD protection on designs where board space is at a premium.

APPLICATIONS

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

FEATURES

- ✧ Small Body Outline Dimensions.
- ✧ Low Body Height.
- ✧ Peak Power up to 200Watts @ 8 x20 μ s Pulse.
- ✧ Low Leakage current.
- ✧ Response Time is Typically < 1 ns.

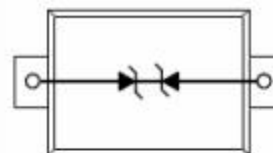
COMPLIES WITH THE FOLLOWING STANDARDS

- ✧ IEC61000-4-2.
- ✧ Level 4 15 kV (air discharge)
8 kV(contact discharge) .
- ✧ MIL STD 883E - Method 3015-7 Class 3
25 kV HBM (Human Body Model) .

SOD-523



PIN CONFIGURATION

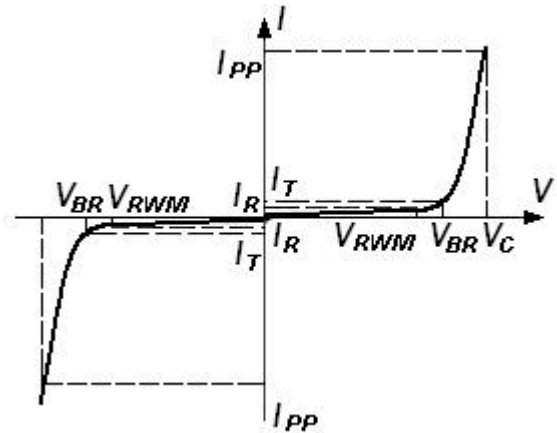


DEVICE CHARACTERISTICS
Absolute Ratings ($T_{amb}=25^{\circ}C$)

Symbol	Parameter	Value	Units
P_{pp}	Peak Pulse Power ($t_p=8/20\mu s$)	200	W
T_L	Maximum lead temperature for soldering during 10s	260	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55 to +155	$^{\circ}C$
$T^{\circ}p$	Operating Temperature Range	-40 to +125	$^{\circ}C$
T_j	Maximum junction temperature	150	$^{\circ}C$
	IEC61000-4-2 (ESD) air discharge contact discharge	± 15 ± 8	kV
	IEC61000-4-4 (EFT)	40	A
	ESD Voltage Per Human Body Model	16	kV
	Per Machine Model	400	V

ELECTRICAL PARAMETER

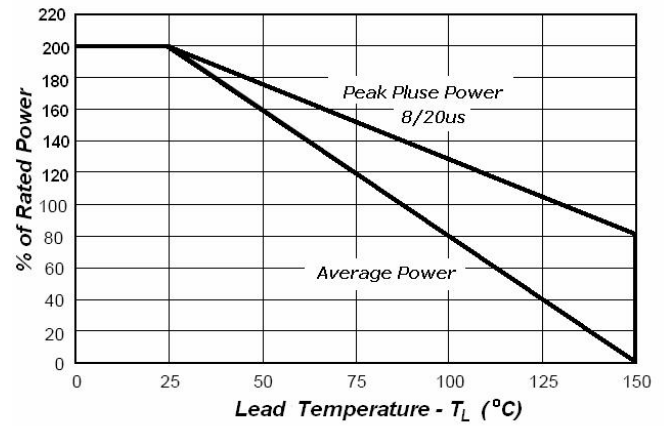
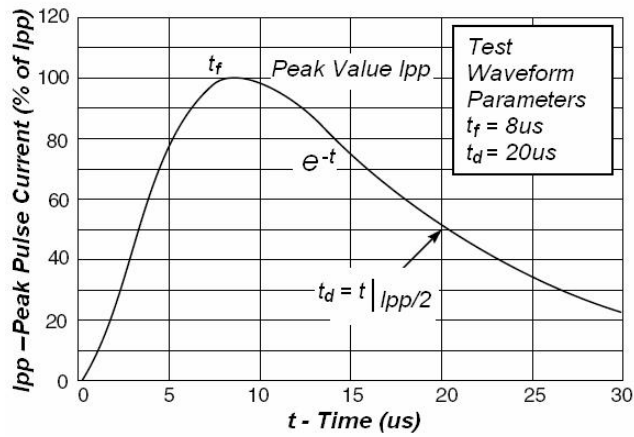
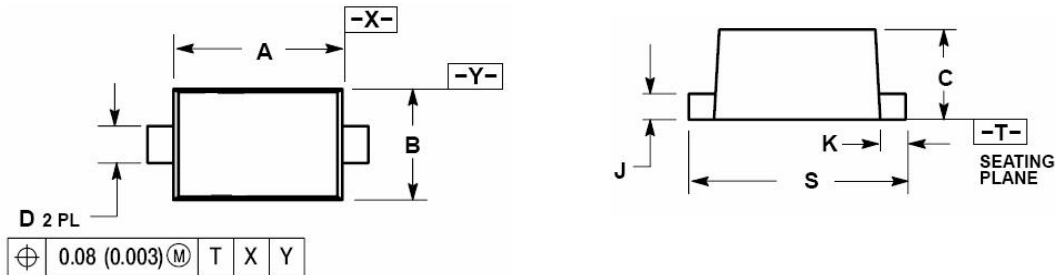
Symbol	Parameter
I_{pp}	Maximum Reverse Peak Pulse Current
V_c	Clamping Voltage @ I_{pp}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
I_T	Test Current
V_{BR}	Breakdown Voltage @ I_T


Electrical Characteristics Ratings at $25^{\circ}C$ ambient temperature unless otherwise specified. $V_F = 0.9V$ at $I_F = 10mA$

Part Numbers	V_{BR}			I_T	V_{RWM}	I_R	V_F	I_F	C
	Min.	Typ.	Max.				Max.	Typ.	Typ. 0v bias
	V	V	V				V	mA	pF
ESD5Z5C	5.6	6.7	7.8	1	5.0	1	1.25	200	30

*Surge current waveform per Figure 1.

1. V_{BR} is measured with a pulse test current I_T at an ambient temperature of $25^{\circ}C$.

TYPICAL CHARACTERISTICS

SOD-523 MECHANICAL DATA


Dim	Millimeters			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	1.10	1.20	1.30	0.043	0.047	0.051
B	0.70	0.80	0.90	0.028	0.032	0.035
C	0.50	0.60	0.70	0.020	0.024	0.028
D	0.25	0.30	0.35	0.010	0.012	0.014
J	0.07	0.14	0.20	0.0028	0.0055	0.0079
K	0.15	0.20	0.25	0.006	0.008	0.010
S	1.50	1.60	1.70	0.059	0.063	0.067

Website: <http://www.jksemi.com>

For additional information, please contact your local Sales Representative.

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