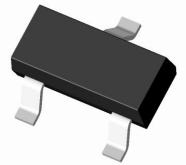


## ESD Protection Diode

### Features

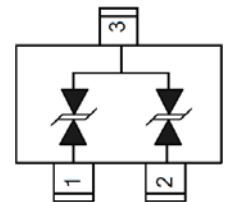
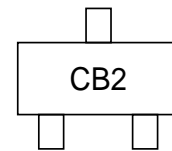
- 250 Watts peak pulse power (  $t_P = 8/20\mu s$  )
- SOT-23 package
- Protects two bidirectional lines
- Fast response time, typically < 1 ns
- Excellent clamping voltage
- Low leakage current
- IEC 61000-4-2  $\pm 20kV$  (Air) ESD protection
- IEC 61000-4-2  $\pm 15kV$  (Contact) ESD protection
- IEC 61000-4-4 40A (5/50ns) EFT protection
- RoHS compliant



Marking: CB2      SOT-23

### Applications

- Cellular Handsets and Accessories
- Portable Electronics
- Control & Monitoring Systems
- Servers, Notebooks
- Set-Top Box
- Communication Systems



Schematic Diagram

### Absolute Maximum Ratings ( $T_A=25^\circ C$ , Unless otherwise specified.)

Parameter	Symbols	Value	Units
Peak Pulse Power ( $t_P=8/20\mu S$ )	$P_{PP}$	250	W
Operating Temperature	$T_J$	-55 to +125	$^\circ C$
Storage temperature	$T_{STG}$	-55 to +150	$^\circ C$

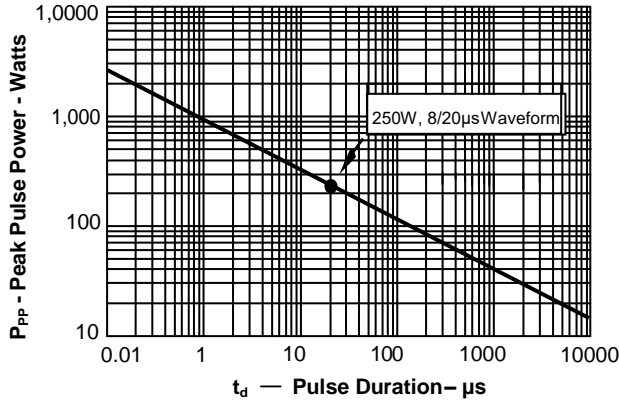
### Electrical Characteristics ( $T_A=25^\circ C$ , Unless otherwise specified.)

Parameter	Symbols	Conditions	Min	Typ	Max	Units
Reverse stand-off Voltage	$V_{RWM}$				24	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T = 1mA$	26.7			V
Reverse Leakage Current	$I_R$	$V_R=24V$			1	$\mu A$
Clamping Voltage	$V_C$	$I_{PP}=5A, T_P=8/20\mu S$			40	V
Junction Capacitance	$C_J$	(pin1,2 to pin3) $V_R=0V, f=1MHz$		15		pF

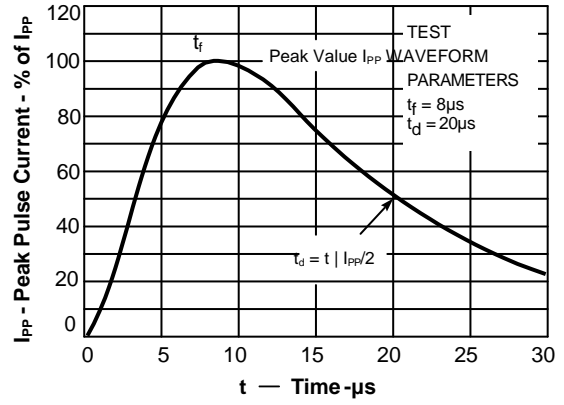
## Ratings and Characteristics Curves

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

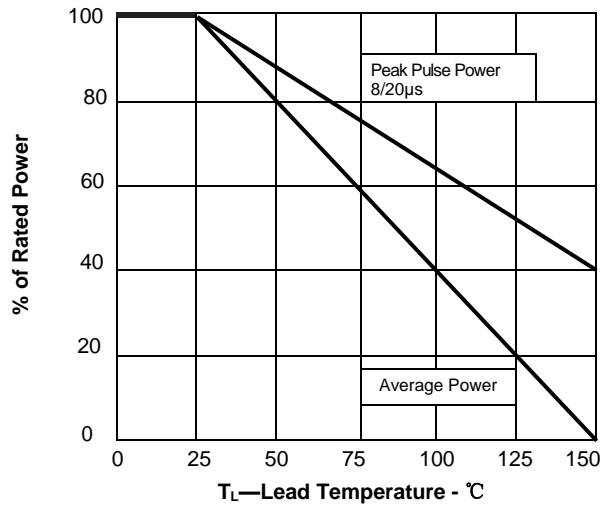
**Fig.1 Peak Pulse Power vs Pulse Time**



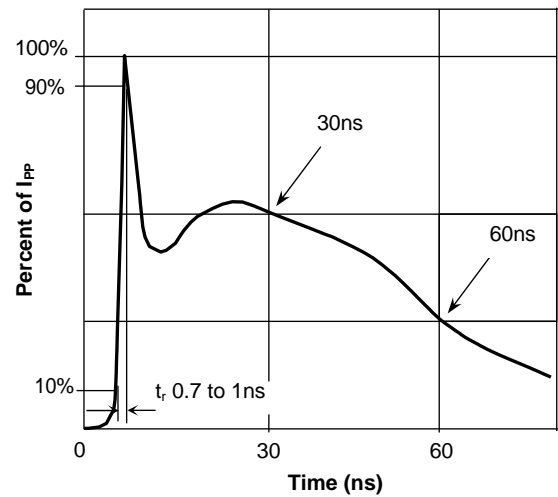
**Fig.2 Pulse Waveform-8/20μs**



**Fig.3 Power Derating Curve**

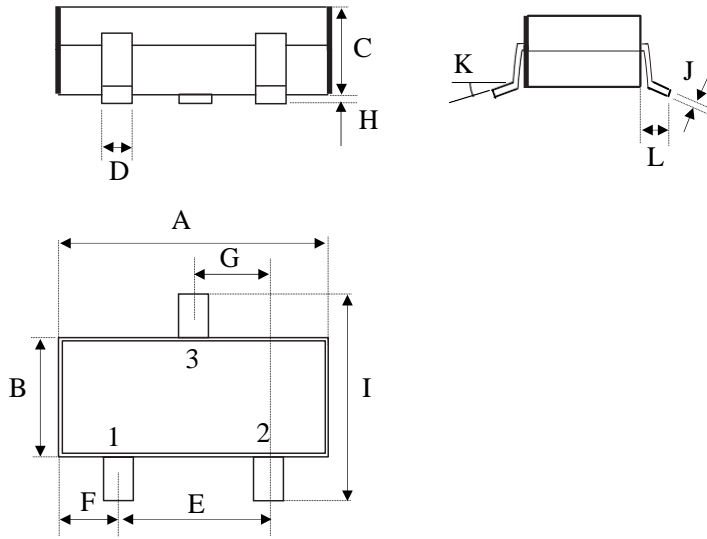


**Fig.4 Pulse Waveform-ESD (IEC61000-4-2)**



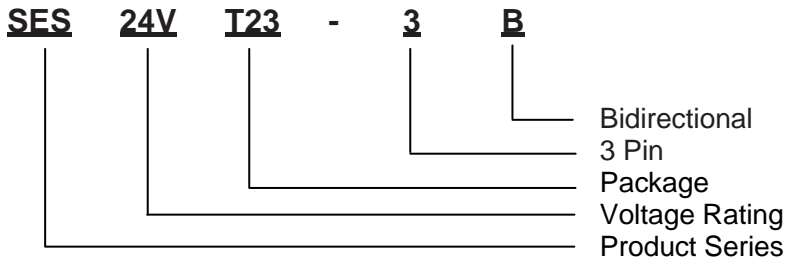
## Package Outline Dimensions

millimeters



Dim	millimeters	
	min	max
A	2.80	3.04
B	1.20	1.40
C	0.89	1.11
D	0.37	0.50
E	1.78	2.04
F	0.45	0.60
G	0.89	1.02
H	0.013	0.100
I	2.10	2.50
J	0.085	0.177
K	0°	10°
L	0.45	0.60

## Part Number System



## Revision History

Document Version	Date of release	Discription of changes
Rev.A	2014.03.25	First issue

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