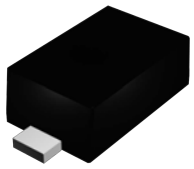
GOOD-ARK SEMICONDUCTOR

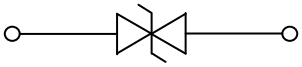
GSEV5B250
ESD Protection Diode

Features

- 58W peak pulse power (tp= 8/20μs)
- SOD-523 package
- Fast response time,typically < 1 ns
- Excellent clamping voltage
- Low leakage current
- IEC 61000-4-2 ±30kV (Air) ESD protection
- IEC 61000-4-2 ±30kV (Contact) ESD protection
- IEC 61000-4-4 40A (5/50ns) EFT protection
- RoHS compliant



SOD-523



Schematic Diagram

Applications

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

Absolute Maximum Ratings

(T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (T_P=8/20μS)	P_{PP}	58	W
Peak Pulse Current (T_P=8/20μS)	I_{PP}	5.0	A
Operating temperature	T_J	-55 to +150	°C
Storage temperature	T_{STG}	-55 to +150	°C

Electrical Characteristics

(T_A=25°C unless otherwise specified)

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

Typical Characteristic Curves

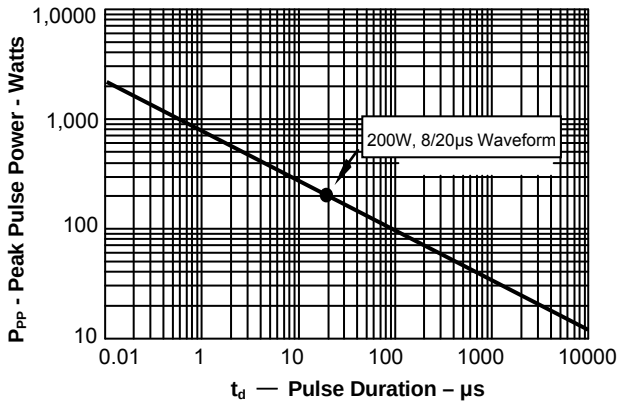


Fig.1 Peak Pulse Power vs Pulse Time

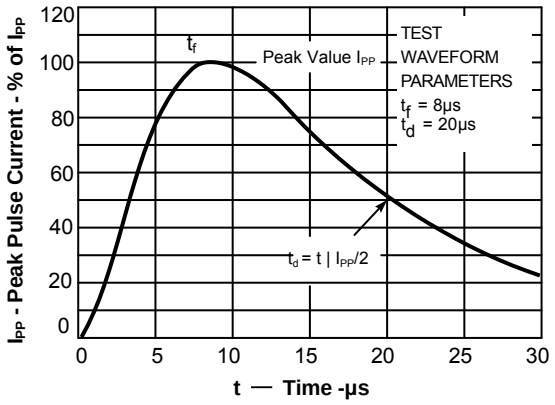


Fig.2 Pulse WaveForm-8/20μs

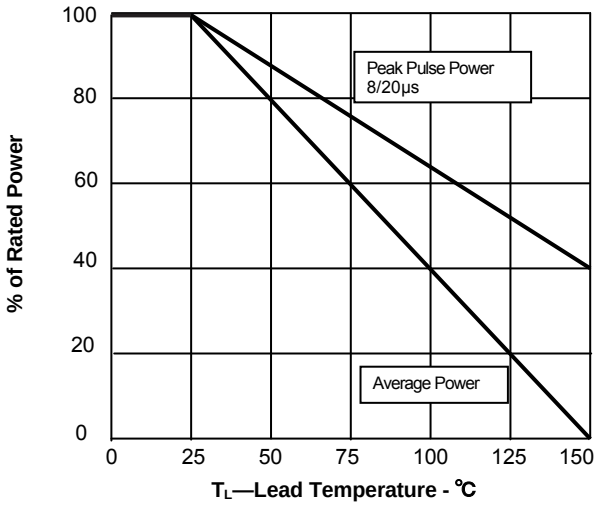


Fig.3 Power Derating Curve

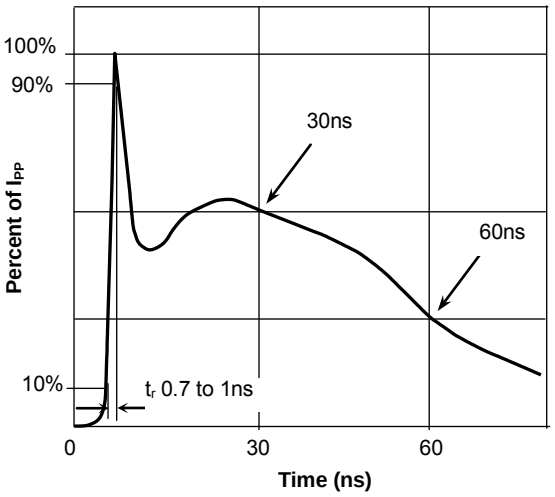
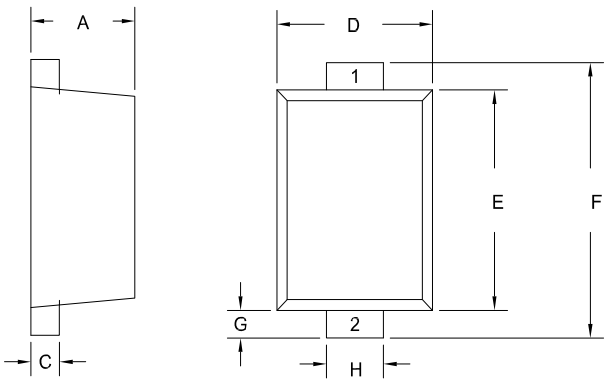


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)

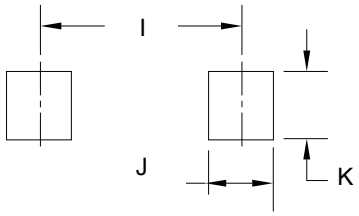
Product Dimensions



SOD-523

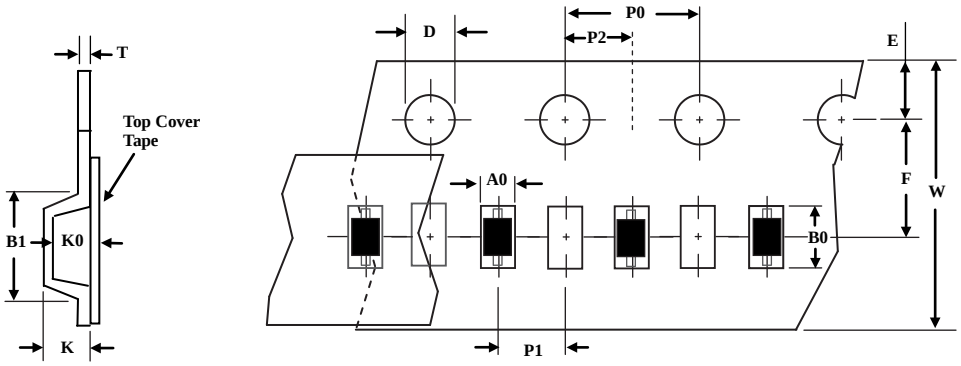
Dim	mm	
	min	max
A	0.50	0.70
C	0.07	0.20
D	0.70	0.90
E	1.10	1.30
F	1.50	1.70
G	0.15	0.25
H	0.25	0.35

Recommended Pad Dimensions



Dim	mm
I	1.35
J	0.35
K	0.39

Package Information



TapeSize(W)	B1 max	D	E	F	K max	P0	P1	P2	T max	W max
8	4.55	1.55±0.05	1.75±0.1	3.5±0.05	2.4	4.0±0.1	2.0±0.05	2.0±0.05	0.6	8.3

Note:1.unit : mm

2. A0, B0, and K0 are determined by component size. The clearance between the components and the cavity must be within 0.05mm min to 0.50 mm max. The component cannot rotate more than 10° within the determined cavity.

Order Information

MPN	Package	Marking	Carrier	Quantity	HSF Status
GSEV5B250	SOD-523	5C	Tape & Reel	8000pcs / Reel	RoHS compliant