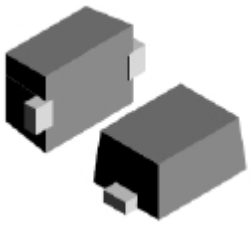
Features

- 200W 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 ±15kV (Air) ESD protection
- IEC 61000-4-2 ±8kV (Contact) ESD protection
- IEC 61000-4-4 40A (5/50ns) EFT protection
- RoHS compliant

ECSD05U1



SOD-523

Schematic Diagram

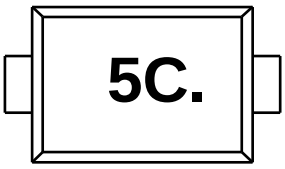
Application

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

Order information

Device	Package	Net Weight	Carrier	Quantity	HSF Status
ECSD05U1	SOD-523	0.0014g	Tape & Reel	8000pcs / Reel	RoHS compliant

Marking



Absolute Maximum Ratings

(T_A=25℃, Unless otherwise specified.)

Parameter	Symbol	Value	Unit
Peak Pulse Power (T_P=8/20μS)	P_{PP}	200	W
Operating temperature	T_J	-55 to 150	℃
Storage temperature	T_{STG}	-55 to 150	℃

Electrical Characteristics (TA=25℃)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	5.6		7.8	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
Clamping Voltage	V_C	I_{PP}=9.4A，T_P=8/20μS			18.6	V
Junction Capacitance	C_J	V_R=0V,f=1MHz		25		pF

Typical Characteristic Curves

Fig.1 Peak Pulse Power vs Pulse Time

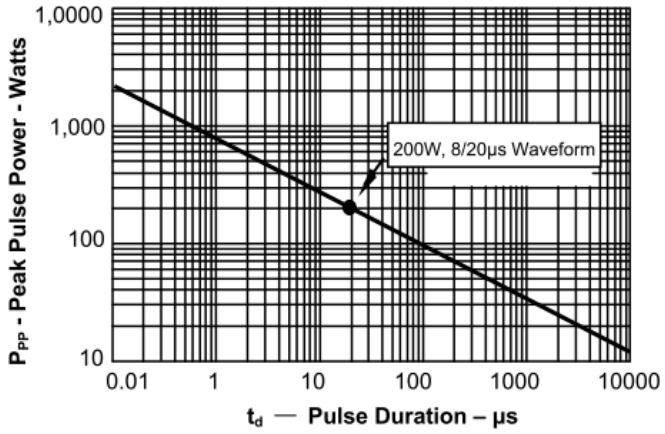


Fig.2 Pulse WaveForm-8/20μs

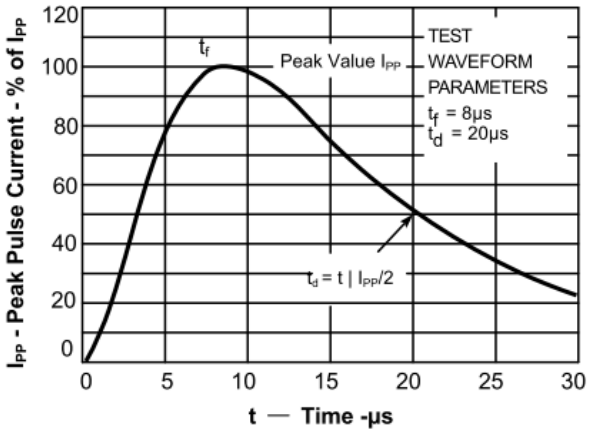


Fig.3 Power Derating Curve

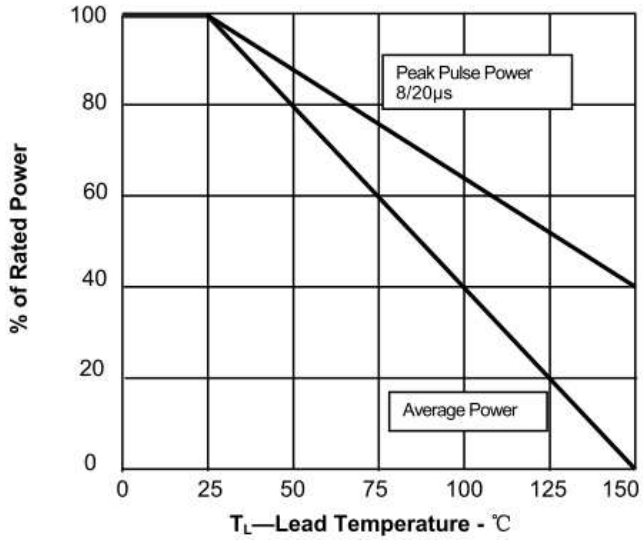
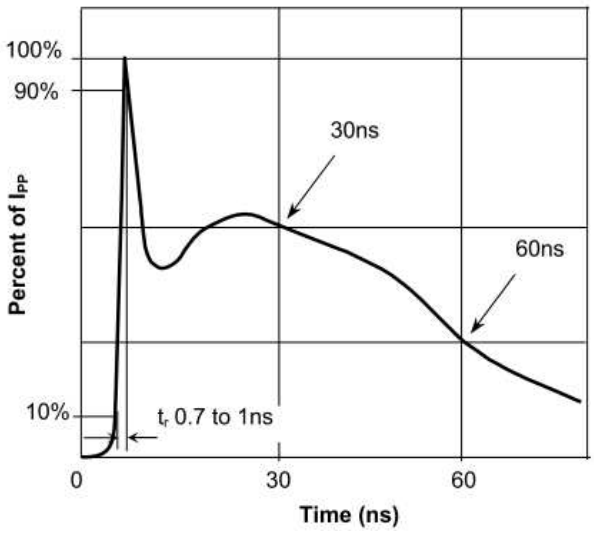
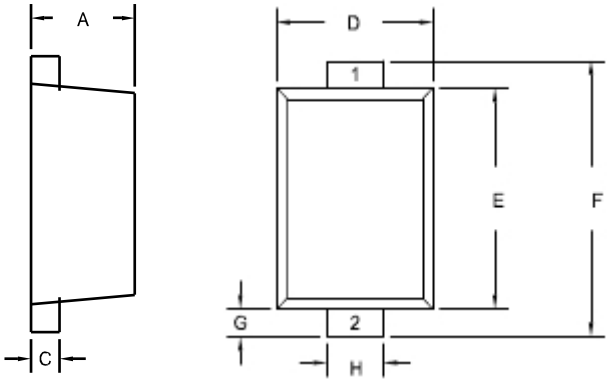


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)

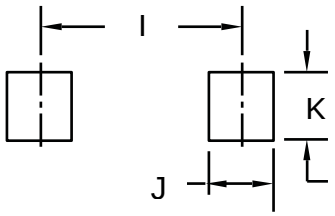


Package Dimensions



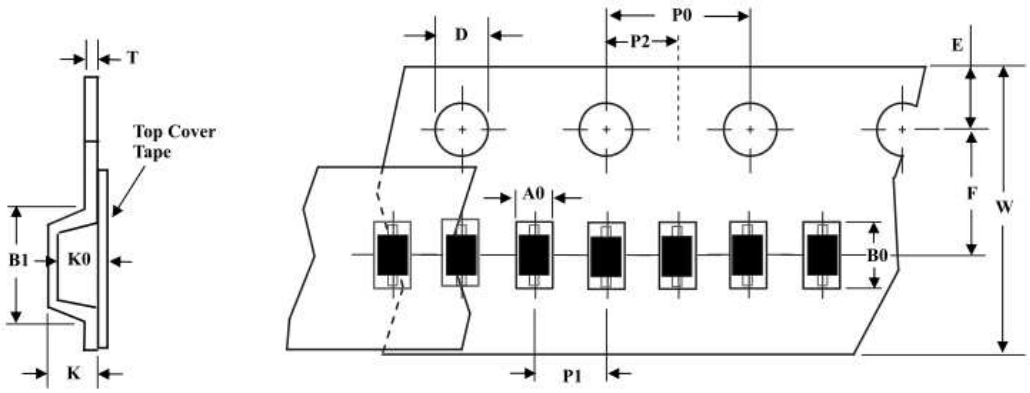
Dim	millmeters	
	min	max
A	0.50	0.70
C	0.07	0.20
D	0.70	0.90
E	1.10	1.30
F	1.50	1.70
G	0.15	0.25
H	0.25	0.35

PAD Dimensions



Dim	millmeters
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.