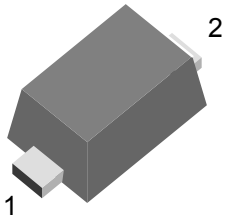
YENYO

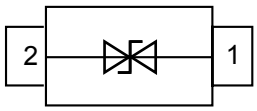
YEUSD520507AB

ESD Protection Diode

Features

- 100Watts peak pulse power (tp = 8/20μs)
- SOD-523FL package
- Bidirectional configurations
- Low clamping voltage
- Low leakage current
- Medium capacitance (Cj=0.7pF typ.)
- Protection one data/power line to:
  IEC 61000-4-2 ±25kV contact ±25kV air
  IEC 61000-4-4 (EFT) 40A (5/50ns)
  IEC 61000-4-5 (Lightning) 7A (8/20μs)





Mechanical Data

- **Case:** SOD-523FL (plastic package).
  Lead free; RoHS compliant; Halogen free
- **Molding Compound Flammability Rating:**
  UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:
  260 °C/10 sec. at terminals

Applications

- Computers and peripherals
- Communication systems
- Notebook
- Cellular handsets and accessories
- Portable electronics
- Audio and video equipment

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

Parameter	Symbol	Value	Unit
Peak Pulse Power (T_P=8/20μS)	P_{PP}	100	W
ESD contact/air discharge (IEC-61000-4-2)	V_{ESD}	25	kV
Peak Pulse Current (t_P = 8/20μS)	I_{PP}	7	A
Junction Temperature	T_J	-55 to +125	℃
Storage temperature	T_{STG}	-55 to +150	℃

Electrical Characteristics

(T_A = 25 °C unless otherwise specified)

Parameter	Symbol	ion	Min	Typ	Max	Unit
Reverse stand-off Voltage	V_{RWM}				5.0	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	6.0	8.0		V
Reverse Leakage Current	I_R	V_R =5.0V			0.5	uA
Clamping Voltage (IEC 61000-4-5)	V_C	I_{PP} =7A			16	V
Clamping Voltage (IEC 61000-4-2)	V_C	V_{ESD}=8kV		13.5		V
Junction Capacitance	C_J	V_R=0V, f=1MHz		0.7		pF

Typical Characteristics (T_{amb} = 25 °C unless otherwise specified)

Fig.1 Peak Pulse Power Rating Curve

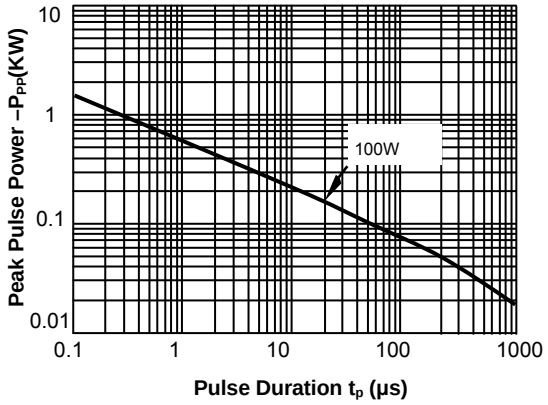


Fig.2 Pulse Derating Curve

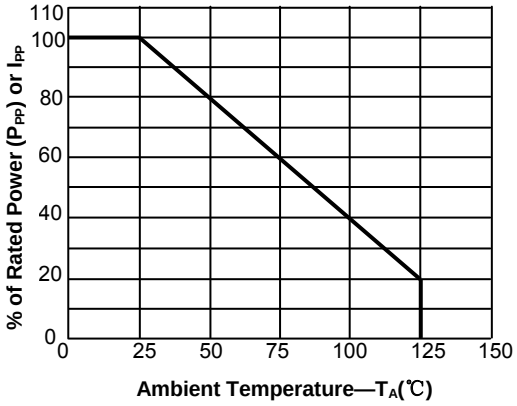


Fig.3 Pulse Waveform-8/20μs

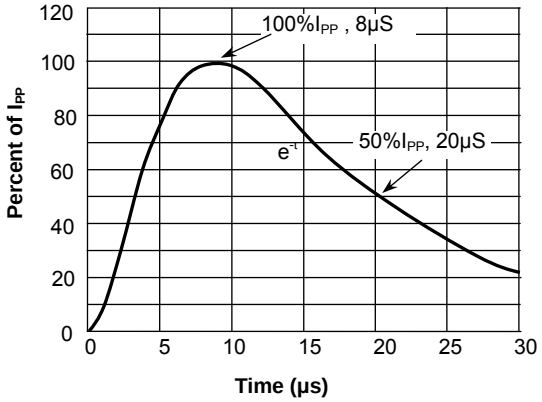
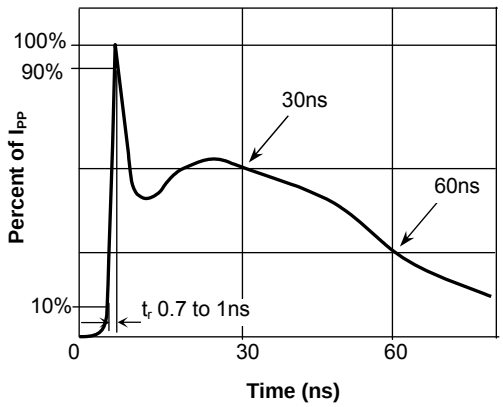
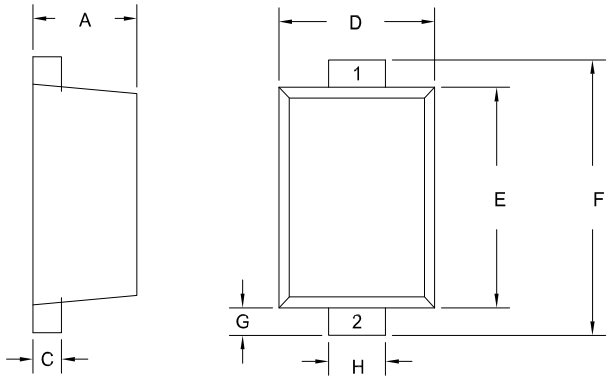


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)

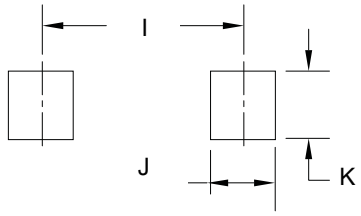


Package Dimensions



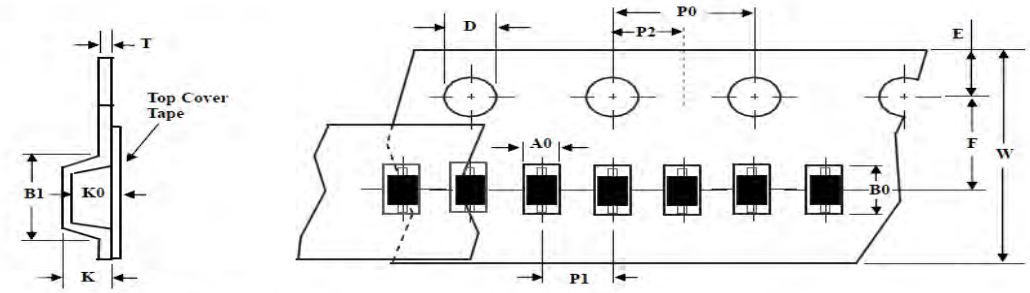
Dim	millmeters	
	min	max
A	0.50	0.70
C	0.07	0.20
D	0.70	0.90
E	1.10	1.30
F	1.50	1.70
G	0.15	0.25
H	0.25	0.35

PAD Dimensions



Dim	millmeters
I	1.47
J	0.53
K	0.5

Pakeage Information

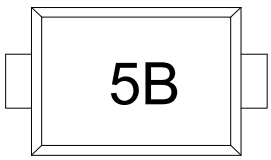


TapeSize(W)	B1 max	D	E	F	K max	P0	P1	P2	T max	W max
8	4.55	1.55±0.05	1.75±0.1	3.5±0.05	2.4	4.0±0.1	2.0±0.05	2.0±0.05	0.6	8.3

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.

Marking



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
YEUSD520507AB	SOD-523FL	Tape and reel	5000pcs / reel	EIA STD RS-481