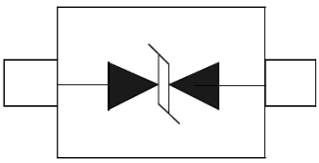
SOD-523



Features

40Watts peak pulse power(tp=8/20us)

Low clamping voltage

Low leakage current

Glass passivated junction

Bidirectional configurations

IEC 61000-4-2 ±10KV contact ± 15KV air

Halogen free and RoHS compliant

Mechanical Data

CASE: SOD-523 Molded Plastic

Molding compound flammability rating: UL 94V-0

Mounting Position:Any

Making Code & Ordering information

Ordercode	Package	Base qty	Deliverymode
PESD5V0U1BB-K	SOD523	5000	Tape and reel

Maximum Ratings & Thermal Characteristics

(Ratings at 25℃ ambient temperature unless otherwise specified.)

Rating	Symbol	Value	Units
Peak Pulse Power (t_p =8/20μs)	P_{PP}	40	Watts
Peak Pulse Current (t_p =8/20μs)(note1)	I_{pp}	3.0	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	15 10	kV
Lead Soldering Temperature	T_L	260(10seconds)	℃
Junction Temperature	T_J	-55 to + 125	℃
Storage Temperature	T_{stg}	-55 to + 125	℃

Electrical Characteristics

(Ratings at 25℃ ambient temperature unless otherwise specified).

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				5.0	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	5.5	6.5		V
Reverse Leakage Current	I_R	V_{RWM}=5V,T=25℃			0.1	μA
Peak Pulse Current	I_{PP}	tp =8/20μs			3.0	A
Clamping Voltage	V_C	I_{PP}=3.0A,t_p=8/20μs			13	V
Junction Capacitance	C_j	V_R = 0V, f = 1MHz		2.7	3.5	pF

Ratings and Characteristic Curves

（Ratings at 25℃ ambient temperature unless otherwise specified).

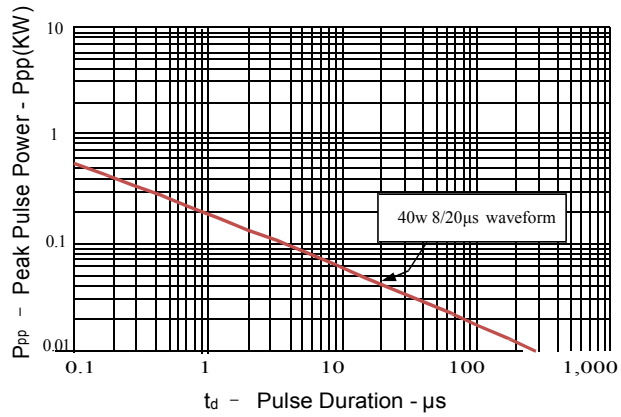


Figure 1: Peak Pulse Power vs. Pulse Time

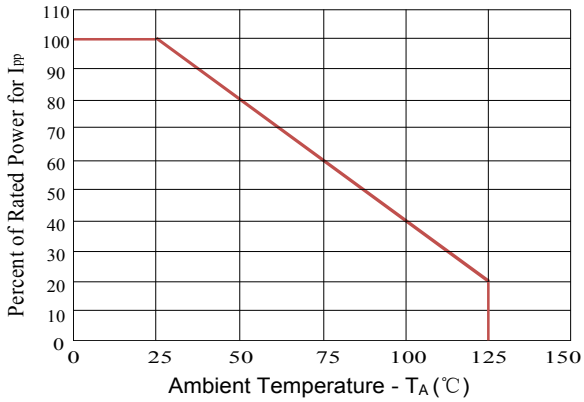


Figure 2: Power Derating Curve

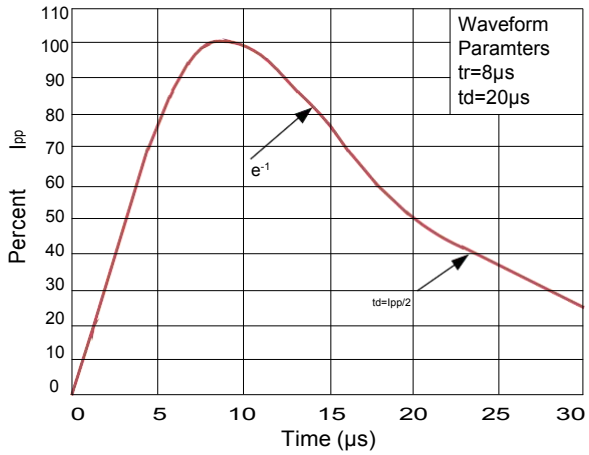


Figure3: Pulse Waveform

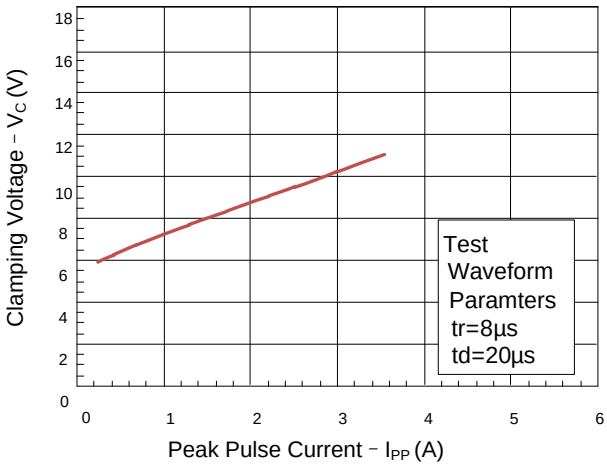
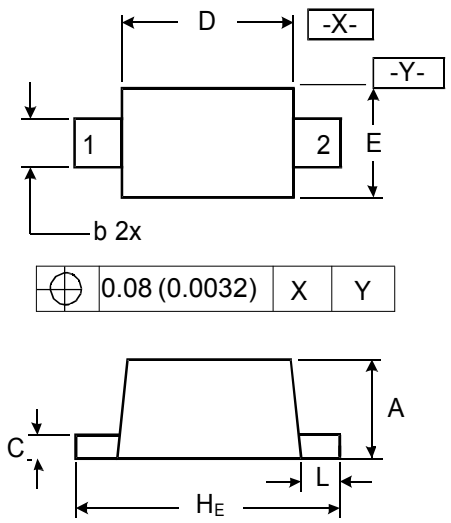


Figure 4: Clamping Voltage vs.Ipp

Package Outline Dimensions: SOD-523



DIMENSIONS

SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	0.50	0.70	0.020	0.028
b	0.25	0.35	0.010	0.014
C	0.07	0.20	0.0028	0.0079
D	1.10	1.30	0.043	0.051
E	0.70	0.90	0.028	0.035
H_E	1.50	1.70	0.059	0.067
L	0.15	0.25	0.006	0.010