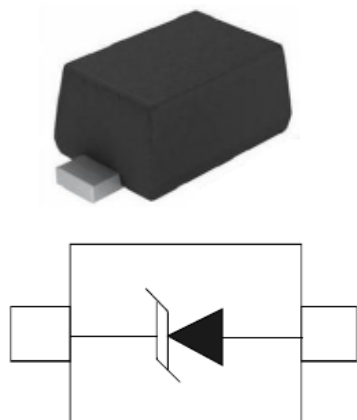


SOD-523



Features

350Watts peak pulse power($t_p=8/20\mu s$)

Low clamping voltage

Low leakage current

Glass passivated junction

Unidirectional configurations

IEC 61000-4-2 $\pm 8KV$ contact $\pm 15KV$ 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
PESD12VS1UB-K	SOD523	5000	Tape and reel

Maximum Ratings & Thermal Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	350	Watts
Peak Pulse Current ($t_p = 8/20\mu s$) (note1)	I_{pp}	10	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	15 8	kV
Lead Soldering Temperature	T_L	260(10seconds)	°C
Junction Temperature	T_J	-55 to + 150	°C
Storage Temperature	T_{stg}	-55 to + 150	°C

Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified).

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				12.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	13.3			V
Reverse Leakage Current	I_R	$V_{RWM}=12V, T=25^\circ C$			1	μA
Clamping Voltage	V_C	$I_{PP}=10A, t_p=8/20\mu s$			35	V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		55		pF

Ratings and Characteristic Curves

(Ratings at 25°C ambient temperature unless otherwise specified).

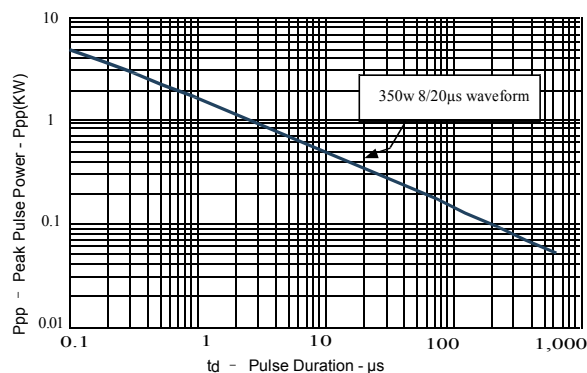


Figure 1: Peak Pulse Power vs. Pulse Time

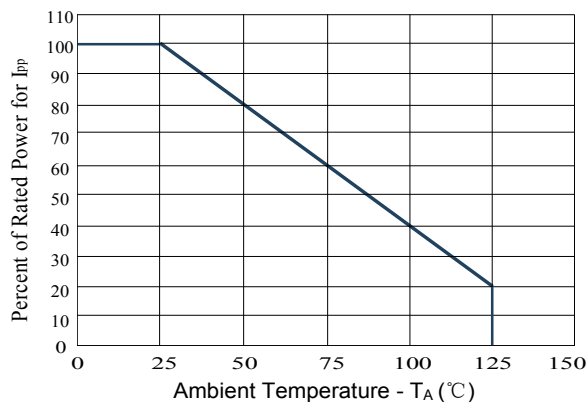


Figure 2: Power Derating Curve

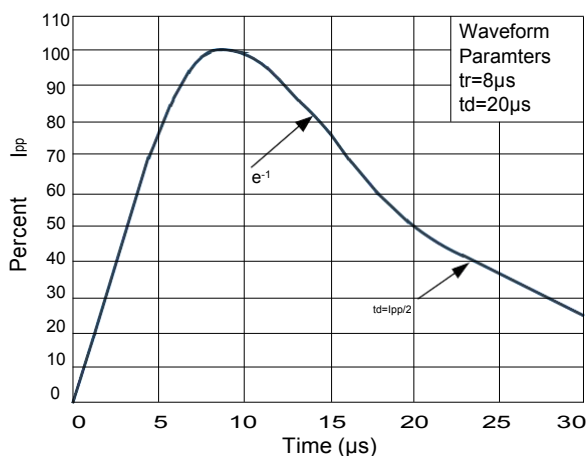


Figure3: Pulse Waveform

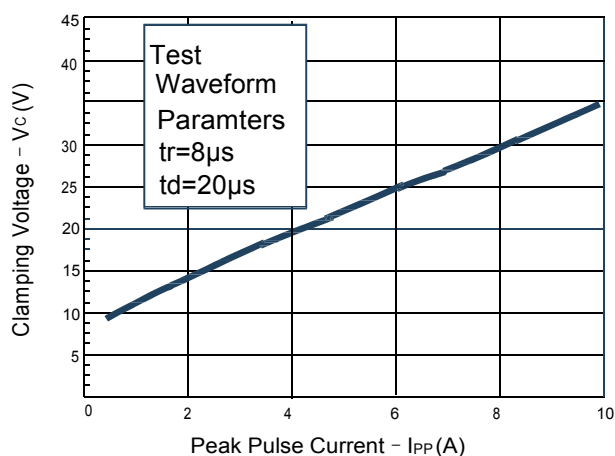
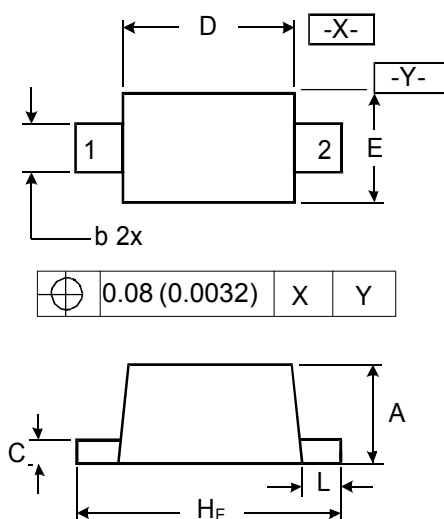


Figure 4: Clamping Voltage vs. Ipp

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
HE	1.50	1.70	0.059	0.067
L	0.15	0.25	0.006	0.010