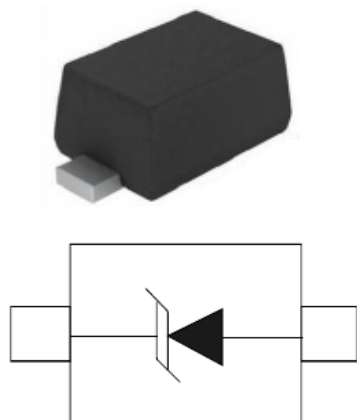



SOD-523

Features

250Watts peak pulse power($t_p=8/20\mu s$)
 Low clamping voltage
 Low leakage current
 Glass passivated junction
 Unidirectional configurations
 IEC 61000-4-2 $\pm 30KV$ contact $\pm 30KV$ 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
	PSD5V05A	SOD523	5000	Tape andreel

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}	250	Watts
Peak Pulse Current ($t_p = 8/20\mu s$) (note1)	I_{pp}	15	A
ESD per IEC 61000-4-2(Air) ESD per IEC 61000-4-2(Contact)	V_{ESD}	30 30	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}				5.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	6.0			V
Reverse Leakage Current	I_R	$V_{RWM}=5.0V, T=25^\circ C$			0.5	μA
Clamping Voltage	V_C	$I_{PP}=15A, t_p=8/20\mu s$		13	18	V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		80		pF



Ratings and Characteristic Curves

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

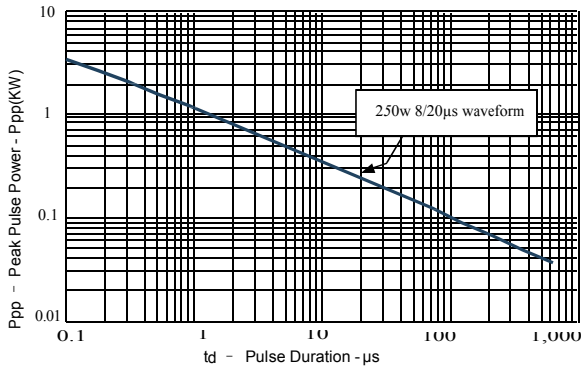


Figure 1: Peak Pulse Power vs. Pulse Time

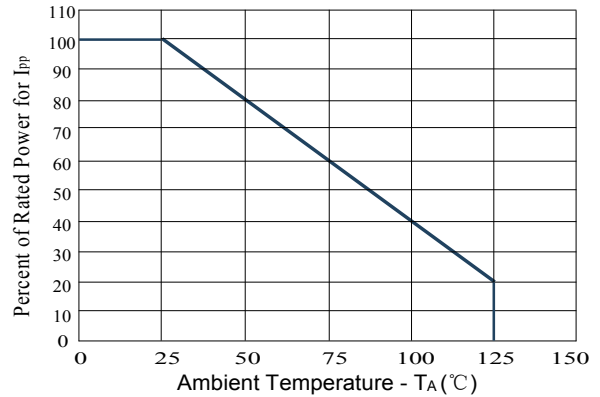


Figure 2: Power Derating Curve

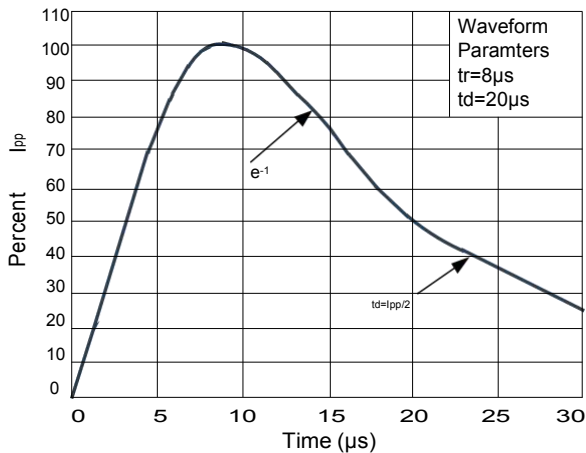


Figure 3: Pulse Waveform

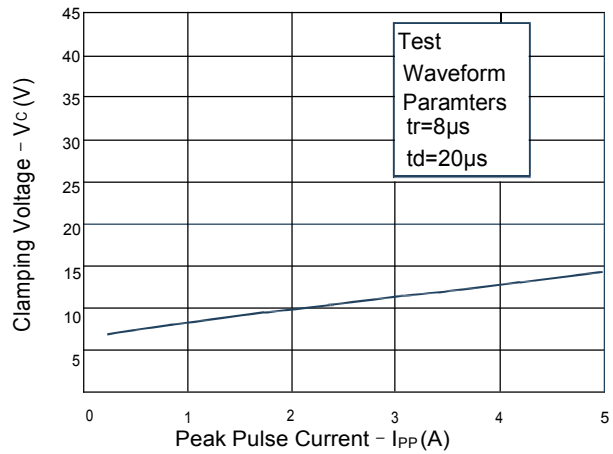
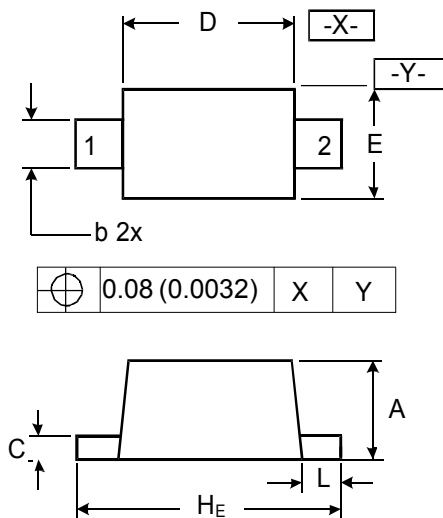


Figure 4: Clamping Voltage vs. I_{pp}

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