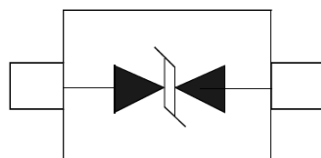



**SOD-523**

**Features**

 75Watts peak pulse power( $t_p=8/20\mu s$ )

Low clamping voltage

Low leakage current

Glass passivated junction

Bidirectional configurations

 IEC 61000-4-2  $\pm 25KV$  contact  $\pm 25KV$  air

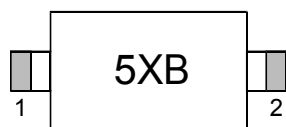
Halogen free and RoHS compliant

**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
PSD5V05C	SOD523	5000	Tape andreel

**Maximum Ratings & Thermal Characteristics**

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

Rating	Symbol	Value	Units
Peak Pulse Power ( $t_p = 8/20\mu s$ )	$P_{PP}$	75	Watts
Peak Pulse Current ( $t_p = 8/20\mu s$ ) (note1)	$I_{pp}$	5	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	$V_{ESD}$	25 25	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	$I_R$	$V_{RWM}=5V, T=25^\circ C$			0.2	$\mu A$
Clamping Voltage	$V_C$	$I_{PP}=5A, t_p=8/20\mu s$			15	V
Junction Capacitance	$C_j$	$V_R = 0V, f = 1MHz$		8	10	pF



## Ratings and Characteristic Curves

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

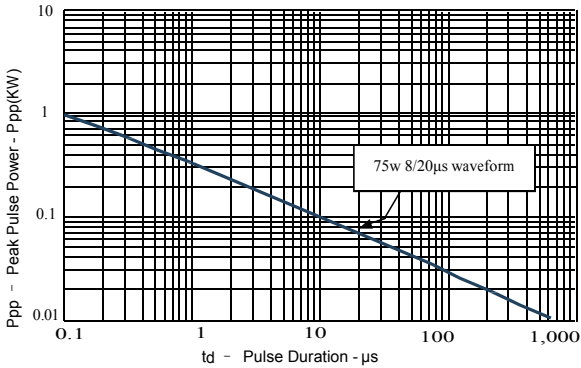


Figure 1: Peak Pulse Power vs. Pulse Time

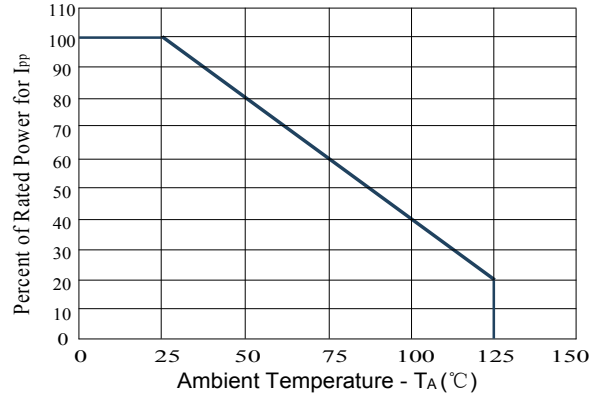


Figure 2: Power Derating Curve

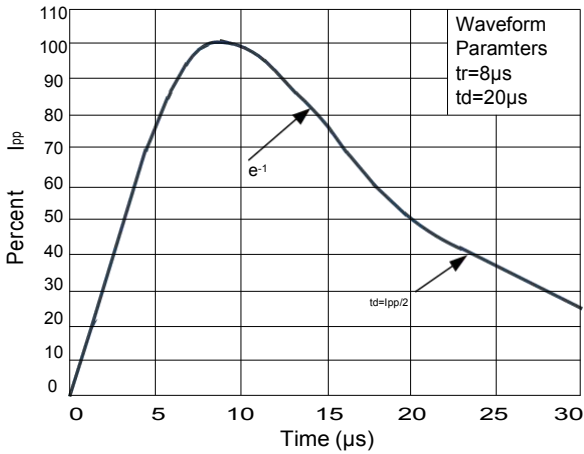


Figure 3: Pulse Waveform

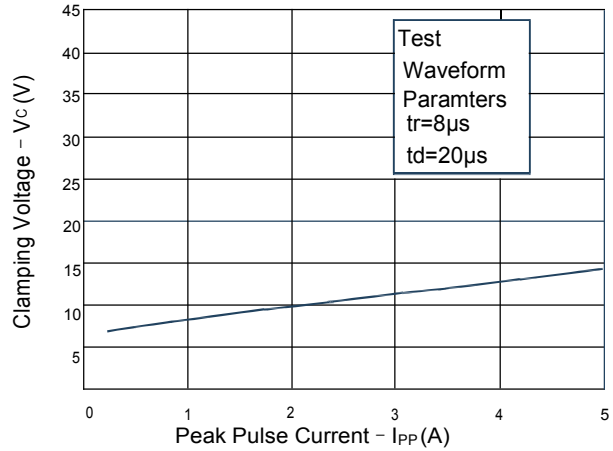
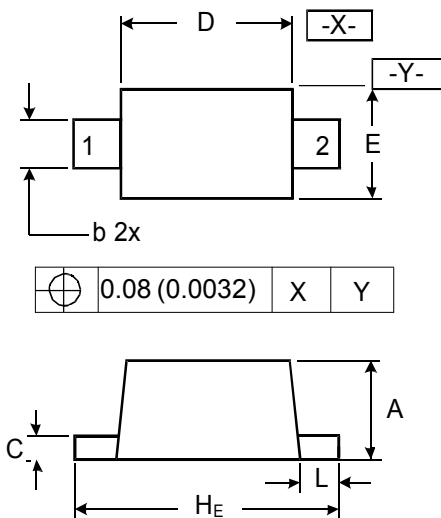


Figure 4: Clamping Voltage vs. Ipp

## 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