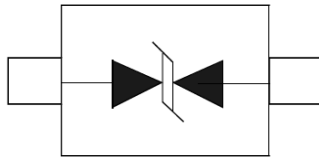



**SOD-523**

**Features**

400Watts peak pulse power( $t_p=8/20\mu s$ )  
 Low clamping voltage  
 Low leakage current  
 Glass passivated junction  
 Bidirectional configurations  
 IEC 61000-4-2  $\pm 15KV$  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**

	<table border="1"> <thead> <tr> <th>Ordercode</th> <th>Package</th> <th>Base qty</th> <th>Deliverymode</th> </tr> </thead> <tbody> <tr> <td>PSD5M05C</td> <td>SOD523</td> <td>5000</td> <td>Tape and reel</td> </tr> </tbody> </table>	Ordercode	Package	Base qty	Deliverymode	PSD5M05C	SOD523	5000	Tape and reel
Ordercode	Package	Base qty	Deliverymode						
PSD5M05C	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 ( $t_p = 8/20\mu s$ )	$P_{PP}$	400	Watts
Peak Pulse Current ( $t_p = 8/20\mu s$ ) (note1)	$I_{pp}$	18	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	$V_{ESD}$	30 15	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	$I_R$	$V_{RWM}=5V, T=25^\circ C$			1	$\mu A$
Clamping Voltage	$V_C$	$I_{PP}=18, t_p=8/20\mu s$			22	V
Junction Capacitance	$C_j$	$V_R = 0V, f = 1MHz$		35	40	pF



## Ratings and Characteristic Curves

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

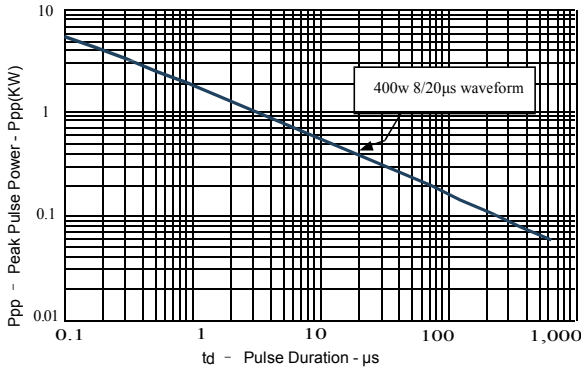


Figure 1: Peak Pulse Power vs. Pulse Time

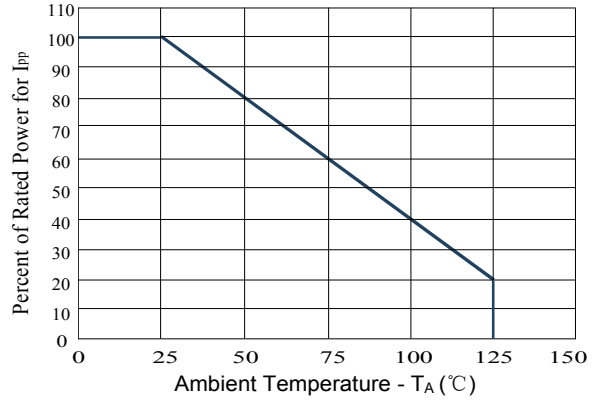


Figure 2: Power Derating Curve

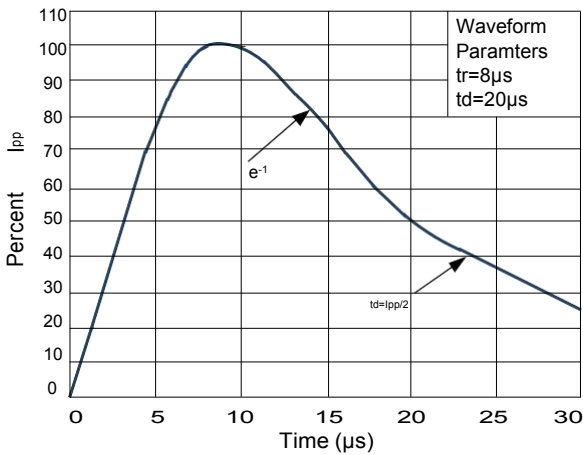


Figure 3: Pulse Waveform

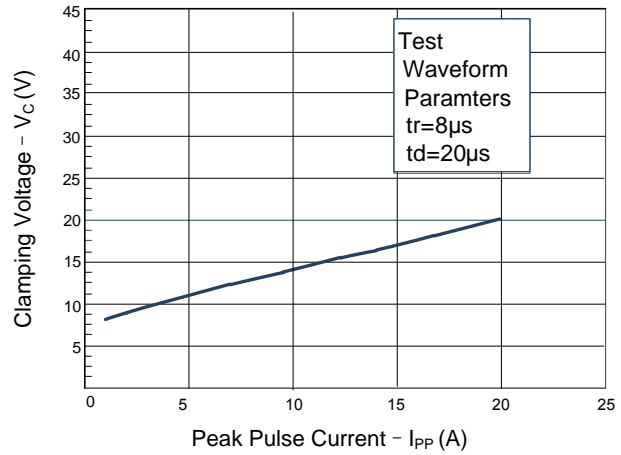
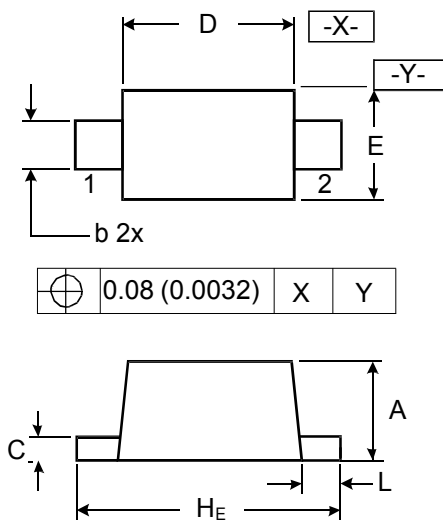


Figure 4: Clamping Voltage vs. Ipp

## 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