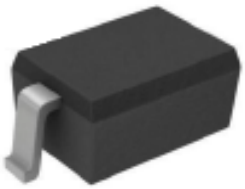
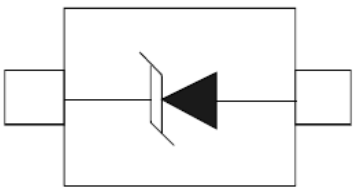
SOD-323





Features

1500Watts peak pulse power(tp=8/20us)

Low clamping voltage

Low leakage current

Glass passivated junction

Unidirectional configurations

IEC 61000-4-2 ±30KV contact ±30KV air

Halogen free and RoHS compliant

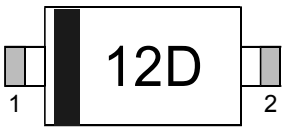
Mechanical Data

CASE: SOD-323 Molded Plastic

Molding compound flammability rating: UL 94V-0

Mounting Position:Any

Making Code & Ordering information



Pin Style: 1. Cathode 2. Anode

Ordercode	Package	Base qty	Deliverymode
PSD3V12A50	SOD323	3000	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}	1500	Watts
Peak Pulse Current (t_p =8/20μs) (note1)	I_{pp}	50	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)	℃
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}				12	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	13.3	14	15	V
Reverse Leakage Current	I_R	V_{RWM}=12V,T=25℃			1	uA
Clamping Voltage	V_C	I_{PP}=50A,t_p=8/20μs			30	V
Junction Capacitance	C_j	V_R = 0V, f = 1MHz		250	400	pF

Ratings and Characteristic Curves

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

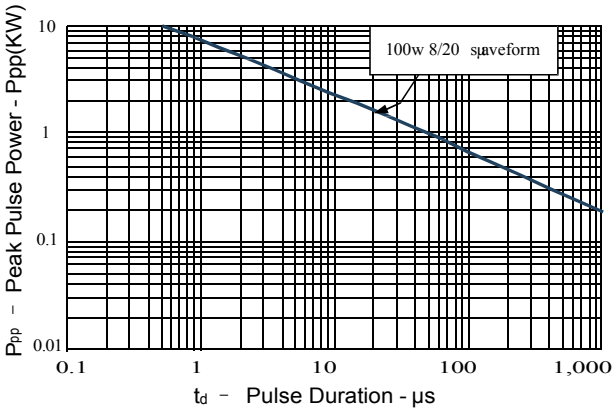


Figure 1: Peak Pulse Power vs. Pulse Time

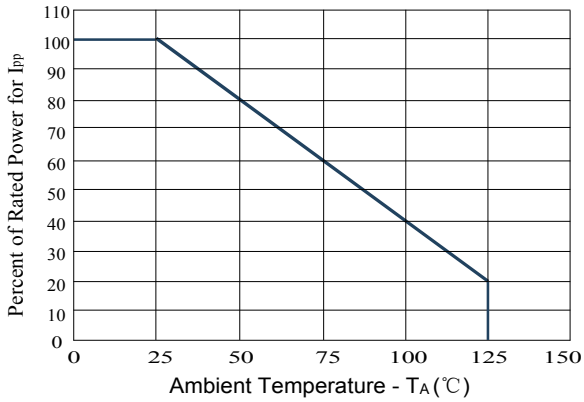


Figure 2: Power Derating Curve

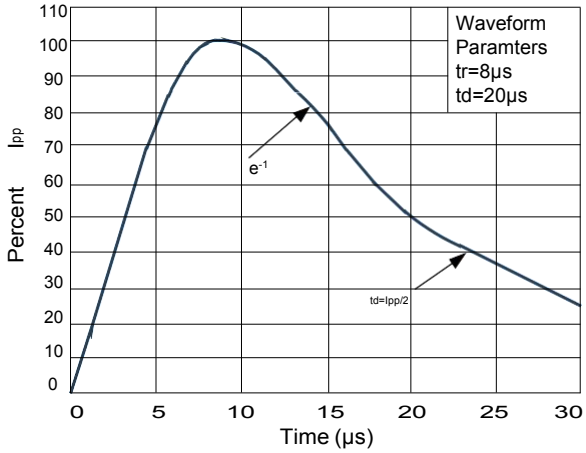


Figure3: Pulse Waveform

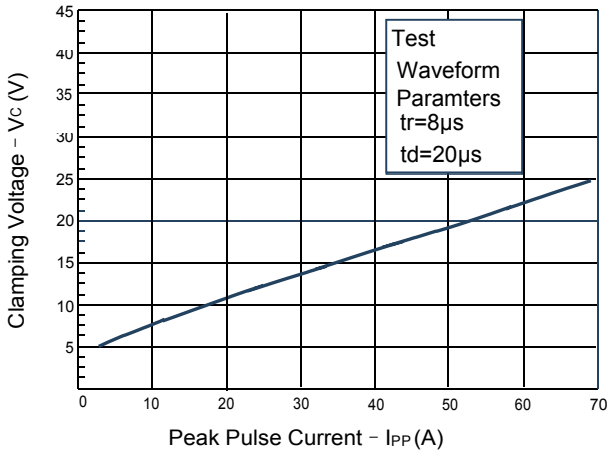
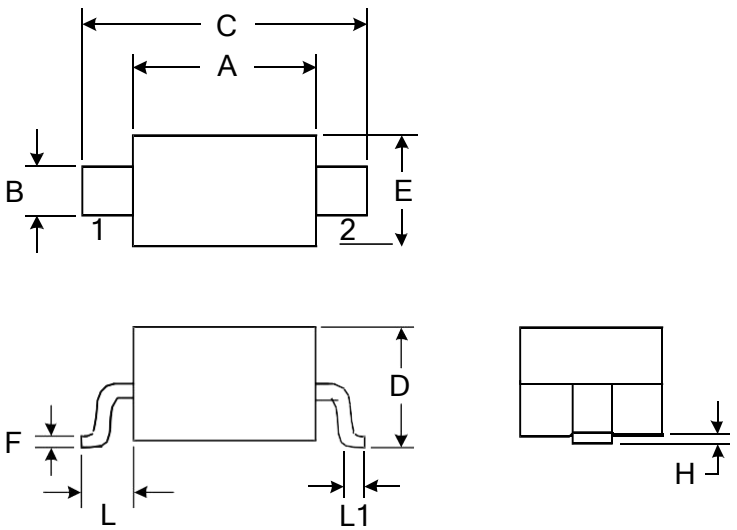


Figure 4: Clamping Voltage vs.Ipp

Package Outline Dimensions: SOD-323



DIMENSIONS				
SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	1.600	1.800	0.063	0.071
B	0.250	0.350	0.010	0.014
C	2.500	2.700	0.098	0.106
D		1.000		0.039
E	1.200	1.400	0.047	0.055
F	0.080	0.150	0.003	0.006
L	0.475 REF		0.019REF	
L1	0.250	0.400	0.010	0.016
H	0.000	0.100	0.000	0.004