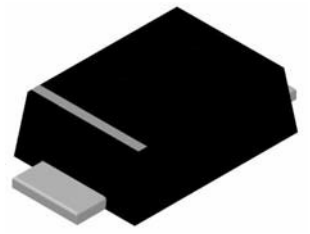
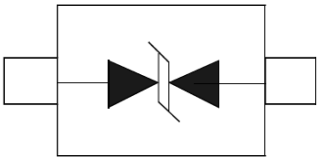
SOD-123FL





Features

4500Watts peak pulse power(tp=8/20us)
Low clamping voltage
Low leakage current
Glass passivated junction
Bidirectional configurations
IEC 61000-4-2 ±30KV contact ±30KV air
Halogen free and RoHS compliant

Mechanical Data

CASE: SOD-123FL Molded Plastic
Molding compound flammability rating: UL 94V-0
Mounting Position:Any

Making Code & Ordering information

Ordercode	Package	Base qty	Deliverymode
PSF4K24C	SOD123FL	3000	Tape andreel

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}	4500	Watts
Peak Pulse Current (t_p =8/20μs)(note1)	I_{pp}	90	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}				24	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	26.7	28	30	V
Reverse Leakage Current	I_R	V_{RWM}=24V,T=25℃		0.5	1.0	μA
Peak Pulse Current	I_{PP}	tp =8/20μs		90		A
Clamping Voltage	V_C	I_{PP}=90A,t_p=8/20μs		55	60	V
Junction Capacitance	C_j	V_R = 0V, f = 1MHz		560	620	pF

Ratings and Characteristic Curves

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

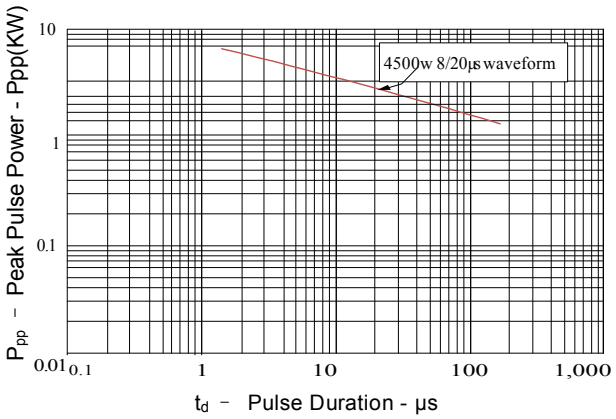


Figure 1: Peak Pulse Power vs. Pulse Time

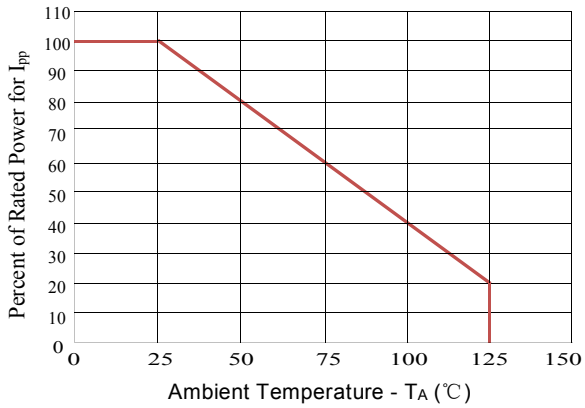


Figure 2: Power Derating Curve

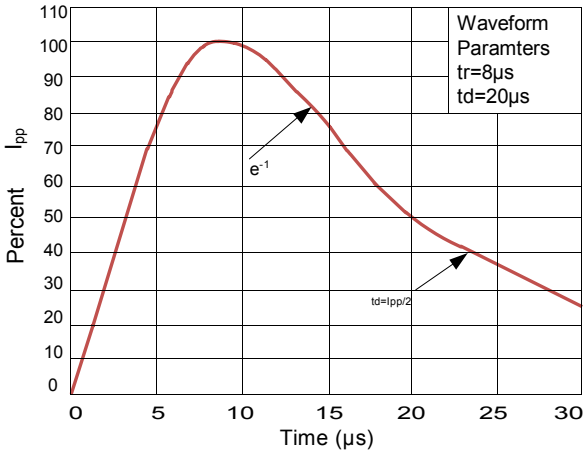


Figure3: Pulse Waveform

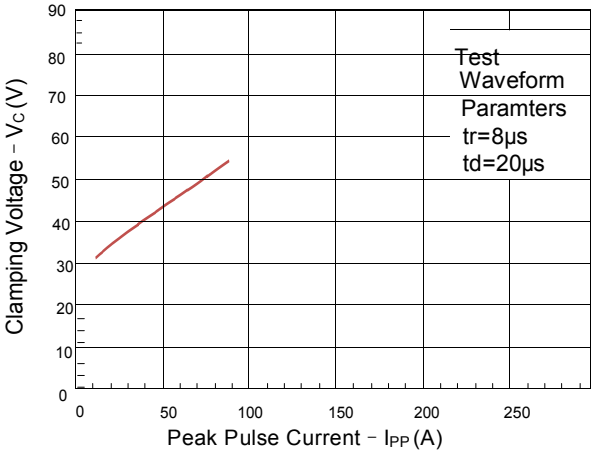
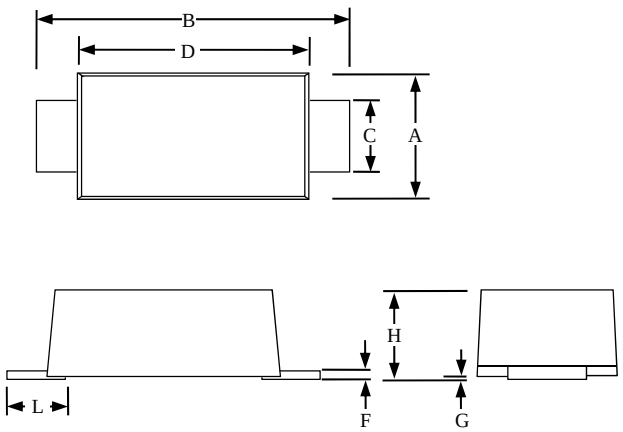


Figure 4: Clamping Voltage vs.Ipp

Package Outline Dimensions: SOD-123FL



SOD-123FL						
Dimension	Inches			Millimeters		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.059		0.079	1.5		2
B	0.134		0.154	3.4		3.9
C	0.028		0.047	0.7		1.2
D	0.098		0.114	2.5		2.9
F	0.002		0.01	0.05		0.26
G	-		0.004	-		0.1
H	0.037		0.053	0.95		1.35
L	0.014		0.035	0.35		0.9