

### Features

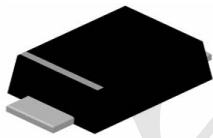
- For surface mounted applications
- Excellent clamping capability
- 6000 W peak pulse power capability with a 8/20 $\mu$ s Waveform.
- IEC-61000-4-2 ESD 30KV(Air),30KV(Contact)

### Applications

- Package: SMF/SOD-123FL
- Moisture Sensitivity: Meet MSL 1

### Dimensions and Pin Configuration

**SOD123FL**



**Marking:12CA**

### Absolute Maximum Ratings (T<sub>amb</sub>=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (tp=8/20 $\mu$ s waveform)	P <sub>pp</sub>	6000	W
Peak Pulse Current (8/20 $\mu$ s)	I <sub>pp</sub>	200	A
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	±30	kV
ESD per IEC 61000-4-2 (Contact)		±30	
Operating Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>stg</sub>	-55 to +150	°C

**Electrical Characteristics** (TA=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V <sub>RWM</sub>			12	V	
Breakdown Voltage	V <sub>BR</sub>	13.3			V	I <sub>T</sub> = 1mA
Reverse Leakage Current	I <sub>R</sub>			2	μA	V <sub>RWM</sub> = 12V
Clamping Voltage	V <sub>C</sub>		25		V	I <sub>PP</sub> = 100A
Clamping Voltage	V <sub>C</sub>		33		V	I <sub>PP</sub> = 200A
Junction Capacitance	C <sub>J</sub>			700	pF	V <sub>R</sub> = 0V, f = 1MHz

**Ratings and Characteristic Curves** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

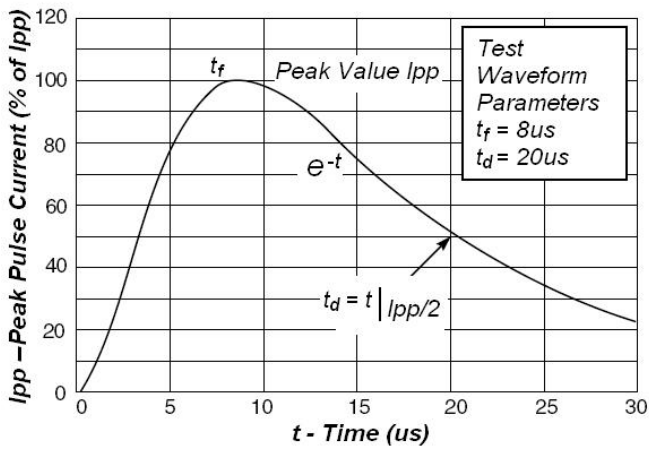


Fig.1 Pulse Waveform

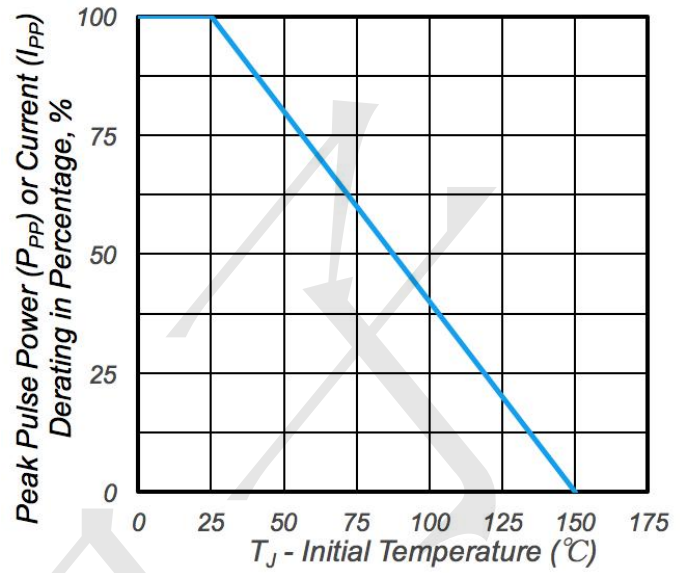
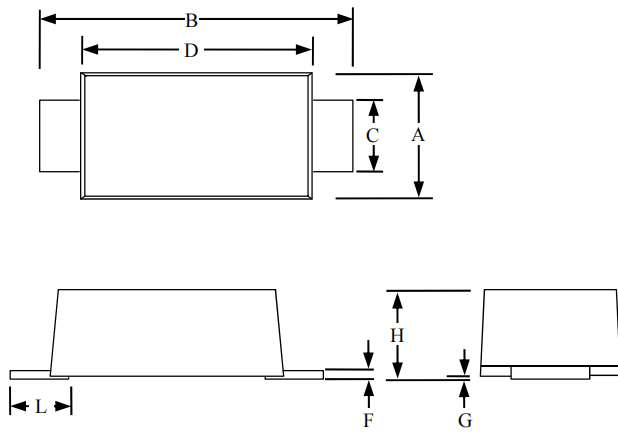


Fig.2 Pulse Derating Curve

Package Outline Dimensions: SOD123FL



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

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