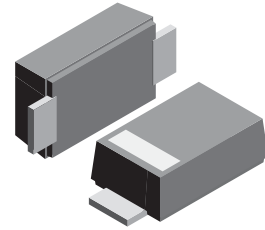


**VOLTAGE RANGE: 5.0 - 170V**  
**POWER: 200Watts**

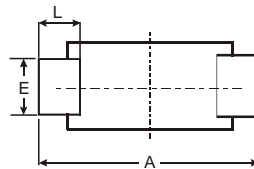
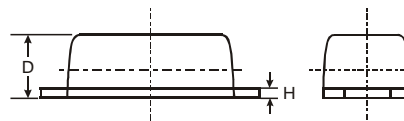
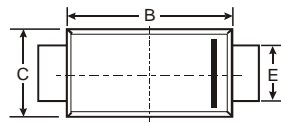
### Features

- For surface mounted applications
- Low profile package
- Low incremental surge resistance, excellent clamping capability
- 200W peak pulse power capability with a 10/1000  $\mu$ s wave from, repetition rate (duty cycle): 0.01%
- High temperature soldering guaranteed: 260 /10 seconds, at terminals



### Mechanical Data

- Case: JEDEC SOD-123FL, molded plastic over passivated chip
- Polarity: Color band denotes positive end (cathode) except for bidirectional
- Mounting position: Any
- Weight: 0.006 ounces, 0.02 gram



SOD-123FL			
Dim	Min	Max	Typ
A	3.58	3.72	3.65
B	2.72	2.78	2.75
C	1.77	1.83	1.80
D	1.02	1.08	1.05
E	0.097	1.03	1.00
H	0.13	0.17	0.15
L	0.53	0.57	0.55
All Dimensions in mm			



### Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Maximum $P_{PK}$ Dissipation (PW - 10/1000 $\mu$ s)	$P_{PK}$	200	W
Maximum $P_{PK}$ Dissipation @ $T_a = 25^\circ\text{C}$ (PW - 8/10 $\mu$ s) (Note 2)	$P_{PK}$	1000	W
DC Power Dissipation @ $T_a = 25^\circ\text{C}$ (Note 3)	$P_D$	385	mW
Derate above $25^\circ\text{C}$		4.0	mW/ $^\circ\text{C}$
Thermal Resistance, Junction to Ambient (Note 3)	$R_{\theta JA}$	325	$^\circ\text{C}/\text{W}$
Thermal Resistance, Junction to Lead (Note 3)	$R_{\theta JL}$	26	$^\circ\text{C}/\text{W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150	$^\circ\text{C}$

#### Notes :

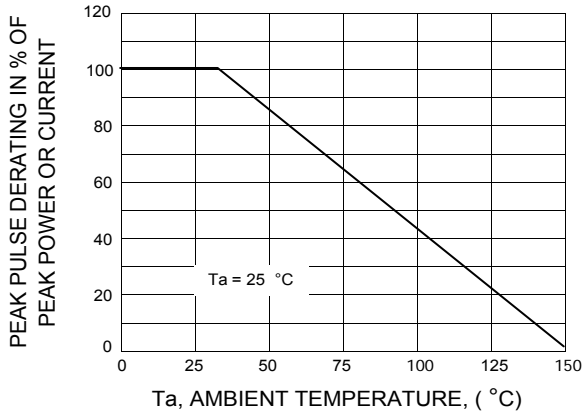
- (1) Non-repetitive current pulse at  $T_a = 25^\circ\text{C}$ , per waveform of Fig. 2.
- (2) Non-repetitive current pulse at  $T_a = 25^\circ\text{C}$ , per waveform of Fig. 5.
- (3) Mounted with recommended minimum pad size, DC board FR4.



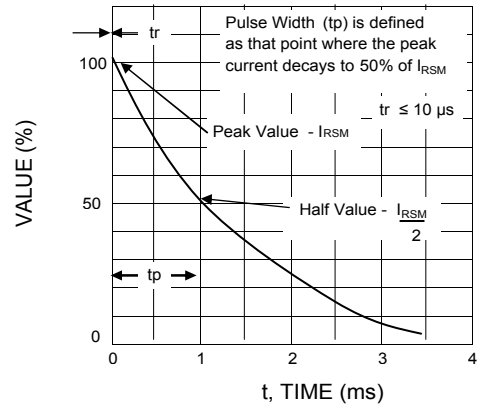
TYPE		Reverse Stand-Off Voltage	Breakdown Voltage Min. @I <sub>T</sub>	Breakdown Voltage Max. @ I <sub>T</sub>	Test Current	Reverse Leakage @V <sub>RWM</sub>	Maximum Clamping Voltage @I <sub>PP</sub>	Peak Pulse Current
(Uni)	(Bi)	V <sub>RWM</sub> (V)	V <sub>BR MIN</sub> (V)	V <sub>BR MAX</sub> (V)	I <sub>T</sub> (mA)	I <sub>R</sub> (uA)	V <sub>C</sub> (V)	I <sub>PP</sub> (mA)
SODJ5.0A-SH	SODJ5.0CA-SH	5.0	6.40	7.00	10	400	9.2	21.7
SODJ6.0A-SH	SODJ6.0CA-SH	6.0	6.67	7.37	10	400	10.3	19.4
SODJ6.5A-SH	SODJ6.5CA-SH	6.5	7.22	7.98	10	250	11.2	17.9
SODJ7.0A-SH	SODJ7.0CA-SH	7.0	7.78	8.60	10	100	12.0	16.7
SODJ7.5A-SH	SODJ7.5CA-SH	7.5	8.33	9.21	1.0	50	12.9	15.5
SODJ8.0A-SH	SODJ8.0CA-SH	8.0	8.89	9.83	1.0	25	13.6	14.7
SODJ8.5A-SH	SODJ8.5CA-SH	8.5	9.44	10.4	1.0	10	14.4	13.9
SODJ9.0A-SH	SODJ9.0CA-SH	9.0	10.0	11.1	1.0	5.0	15.4	13.0
SODJ10A-SH	SODJ10CA-SH	10	11.1	12.3	1.0	2.5	17.0	11.8
SODJ11A-SH	SODJ11CA-SH	11	12.2	13.5	1.0	2.5	18.2	11.0
SODJ12A-SH	SODJ12CA-SH	12	13.3	14.7	1.0	2.5	19.9	10.1
SODJ13A-SH	SODJ13CA-SH	13	14.4	15.9	1.0	1.0	21.5	9.3
SODJ14A-SH	SODJ14CA-SH	14	15.6	17.2	1.0	1.0	23.2	8.6
SODJ15A-SH	SODJ15CA-SH	15	16.7	18.5	1.0	1.0	24.4	8.2
SODJ16A-SH	SODJ16CA-SH	16	17.8	19.7	1.0	1.0	26.0	7.7
SODJ17A-SH	SODJ17CA-SH	17	18.9	20.9	1.0	1.0	27.6	7.2
SODJ18A-SH	SODJ18CA-SH	18	20.0	22.1	1.0	1.0	29.2	6.8
SODJ20A-SH	SODJ20CA-SH	20	22.2	24.5	1.0	1.0	32.4	6.2
SODJ22A-SH	SODJ22CA-SH	22	24.4	26.9	1.0	1.0	35.5	5.6
SODJ24A-SH	SODJ24CA-SH	24	26.7	29.5	1.0	1.0	38.9	5.1
SODJ26A-SH	SODJ26CA-SH	26	28.9	31.9	1.0	1.0	42.1	4.8
SODJ28A-SH	SODJ28CA-SH	28	31.1	34.4	1.0	1.0	45.4	4.4
SODJ30A-SH	SODJ30CA-SH	30	33.3	36.8	1.0	1.0	48.4	4.1
SODJ33A-SH	SODJ33CA-SH	33	36.7	40.6	1.0	1.0	53.3	3.8
SODJ36A-SH	SODJ36CA-SH	36	40.0	44.2	1.0	1.0	58.1	3.4
SODJ40A-SH	SODJ40CA-SH	40	44.4	49.1	1.0	1.0	64.5	3.1
SODJ43A-SH	SODJ43CA-SH	43	47.8	52.8	1.0	1.0	69.4	2.9
SODJ45A-SH	SODJ45CA-SH	45	50.0	55.3	1.0	1.0	72.7	2.8
SODJ48A-SH	SODJ48CA-SH	48	53.3	58.9	1.0	1.0	77.4	2.6
SODJ51A-SH	SODJ51CA-SH	51	56.7	62.7	1.0	1.0	82.4	2.4
SODJ54A-SH	SODJ54CA-SH	54	60.0	66.3	1.0	1.0	87.1	2.3
SODJ58A-SH	SODJ58CA-SH	58	64.4	71.2	1.0	1.0	93.6	2.1
SODJ60A-SH	SODJ60CA-SH	60	66.7	73.7	1.0	1.0	96.8	1.8
SODJ64A-SH	SODJ64CA-SH	64	71.1	78.6	1.0	1.0	103	1.7
SODJ70A-SH	SODJ70CA-SH	70	77.8	86.0	1.0	1.0	113	1.5
SODJ75A-SH	SODJ75CA-SH	75	83.3	92.1	1.0	1.0	121	1.4
SODJ78A-SH	SODJ78CA-SH	78	86.7	95.8	1.0	1.0	126	1.4
SODJ85A-SH	SODJ85CA-SH	85	94.4	104	1.0	1.0	137	1.3
SODJ90A-SH	SODJ90CA-SH	90	100	111	1.0	1.0	146	1.2
SODJ100A-SH	SODJ100CA-SH	100	111	123	1.0	1.0	162	1.1
SODJ110A-SH	SODJ110CA-SH	110	122	135	1.0	1.0	177	1.0
SODJ120A-SH	SODJ120CA-SH	120	133	147	1.0	1.0	193	0.9
SODJ130A-SH	SODJ130CA-SH	130	144	159	1.0	1.0	209	0.8
SODJ150A-SH	SODJ150CA-SH	150	167	185	1.0	1.0	243	0.7
SODJ160A-SH	SODJ160CA-SH	160	178	197	1.0	1.0	259	0.7
SODJ170A-SH	SODJ170CA-SH	170	189	209	1.0	1.0	275	0.6



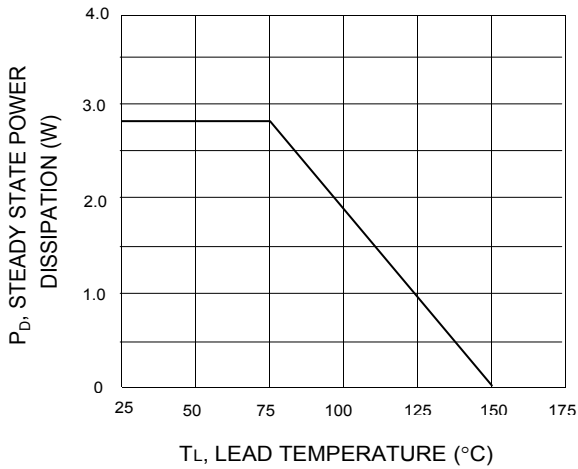
**FIG.1 - PULSE DERATING CURVE**



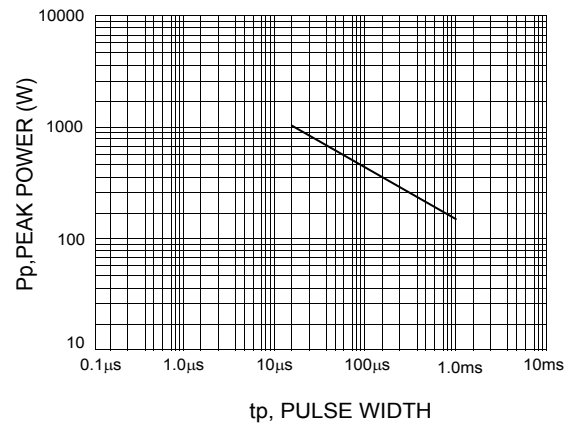
**FIG.2 - 10 x 1000 μs PULSE WAVEFORM**



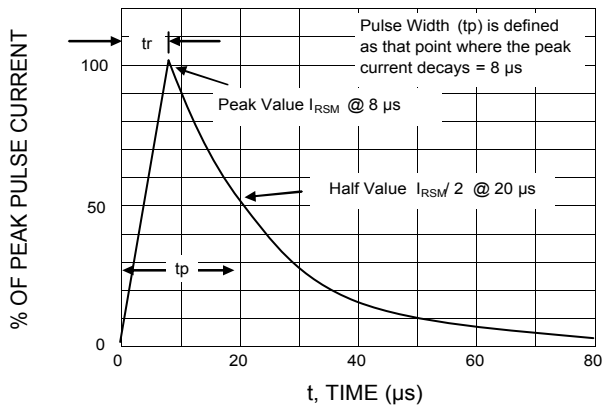
**FIG.3 - STEADY STATE POWER DERATING**



**FIG.4 - PULSE RATING CURVE**



**FIG.5 - 8 x 20 μs PULSE WAVEFORM**



**FIG. 6 - CAPACITANCE VS. WORKING PEAK REVERSE VOLTAGE**

