

Features

- P_{PP} 200W
- V_{RWM} 5.0V- 440V

Applications

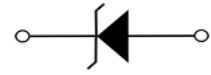
- Clamping Voltage

Marking

- SMF XXCA/XXA
- XX:From 5.0 To 440



SOD-123FL



Uni-direction



Bi-directional



Pb-Free



Halogen-Free

Limiting Values(Absolute Maximum Rating)

Symbol	Parameter	Conditions	Value	Unit
P_{PPM}	Peak power dissipation	with a 10/1000us waveform	200	W
I_{PPM}	Peak pulse current	with a 10/1000us waveform	See Next Table	A
T_J, T_{STG}	storage temperature range		-55 ~ +150	°C
$R_{\theta JL}$	Thermal resistance	Between junction and lead	26	°C/W
$R_{\theta JA}$		Between junction and Ambient	300	°C/W

Notes:

- (1) Non-repetitive current pulse at $T_A = 25^\circ\text{C}$, per waveform of Figure 2.
- (2) $T_L = 30^\circ\text{C}$ unless otherwise noted, $V_F \leq 1.25\text{Volts}@200\text{mA}$



Electrical Characteristics ($T_a=25\text{ }^\circ\text{C}$ unless otherwise noted)

Typt Number		Reverse Stand off Voltage	Breakdown Voltage $V_{BR}@I_T$		Test Current	Max Clamping Voltage@ I_{PP}	Max Peak Pulse Current Max Reverse	Max Reverse Leakage @ V_{RWM}
UNI-POLAR	BI-POLAR	$V_{RWM}(V)$	Min.(V)	Max.(V)	$I_T(mA)$	$V_C\ MAX.(V)$	$I_{PP}(A)$	$I_R(\mu A)$
SMF5.0A	SMF5.0CA	5.0	6.40	7.00	10	9.2	21.7	800
SMF6.0A	SMF6.0CA	6.0	6.67	7.37	10	10.3	19.4	800
SMF6.5A	SMF6.5CA	6.5	7.22	7.98	10	11.2	17.8	500
SMF7.0A	SMF7.0CA	7.0	7.78	8.60	10	12.0	16.6	200
SMF7.5A	SMF7.5CA	7.5	8.33	9.21	1	12.9	15.5	100
SMF8.0A	SMF8.0CA	8.0	8.89	9.83	1	13.6	14.7	50
SMF8.5A	SMF8.5CA	8.5	9.44	10.40	1	14.4	13.8	20
SMF9.0A	SMF9.0CA	9.0	10.00	11.10	1	15.4	13.0	10
SMF10A	SMF10CA	10.0	11.00	12.30	1	17.0	11.7	5
SMF11A	SMF11CA	11.0	12.20	13.50	1	18.2	11.0	1
SMF12A	SMF12CA	12.0	13.30	14.70	1	19.9	10.0	1
SMF13A	SMF13CA	13.0	14.40	15.90	1	21.5	9.3	1
SMF14A	SMF14CA	14.0	15.60	17.20	1	23.2	8.6	1
SMF15A	SMF15CA	15.0	16.70	18.50	1	24.4	8.2	1
SMF16A	SMF16CA	16.0	17.80	19.70	1	26.0	7.7	1
SMF17A	SMF17CA	17.0	18.90	20.90	1	27.6	7.2	1
SMF18A	SMF18CA	18.0	20.00	22.10	1	29.2	6.8	1
SMF20A	SMF20CA	20.0	22.00	24.50	1	32.4	6.1	1
SMF22A	SMF22CA	22.0	24.40	26.90	1	35.5	5.6	1
SMF24A	SMF24CA	24.0	26.70	29.50	1	38.9	5.1	1
SMF26A	SMF26CA	26.0	28.90	31.90	1	42.1	4.7	1
SMF28A	SMF28CA	28.0	31.10	34.40	1	45.4	4.4	1
SMF30A	SMF30CA	30.0	33.50	36.80	1	48.4	4.1	1
SMF33A	SMF33CA	33.0	36.70	40.60	1	53.3	3.7	1
SMF36A	SMF36CA	36.0	40.00	44.20	1	58.1	3.4	1
SMF40A	SMF40CA	40.0	44.40	49.10	1	64.5	3.1	1
SMF43A	SMF43CA	43.0	47.80	52.80	1	69.4	2.9	1
SMF45A	SMF45CA	45.0	50.00	55.30	1	72.7	2.7	1
SMF48A	SMF48CA	48.0	53.30	58.90	1	77.4	2.6	1
SMF51A	SMF51CA	51.0	56.70	62.70	1	82.4	2.4	1
SMF54A	SMF54CA	54.0	60.00	66.30	1	87.1	2.3	1
SMF58A	SMF58CA	58.0	64.40	71.20	1	93.6	2.1	1
SMF60A	SMF60CA	60.0	66.70	73.70	1	96.8	2.0	1
SMF64A	SMF64CA	64.0	71.10	78.60	1	103.0	1.9	1
SMF70A	SMF70CA	70.0	77.80	86.00	1	113.0	1.7	1
SMF75A	SMF75CA	75.0	83.30	92.10	1	121.0	1.6	1
SMF78A	SMF78CA	78.0	86.70	95.80	1	126.0	1.5	1
SMF85A	SMF85CA	85.0	94.40	104.00	1	137.0	1.4	1
SMF90A	SMF90CA	90.0	100.00	111.00	1	146.0	1.3	1
SMF100A	SMF100CA	100.0	111.00	123.00	1	162.0	1.2	1
SMF110A	SMF110CA	110.0	122.00	135.00	1	177.0	1.1	1
SMF120A	SMF120CA	120.0	133.00	147.00	1	193.0	1.0	1
SMF130A	SMF130CA	130.0	144.00	159.00	1	209.0	0.9	1
SMF150A	SMF150CA	150.0	167.00	185.00	1	243.0	0.8	1
SMF160A	SMF160CA	160.0	178.00	197.00	1	259.0	0.7	1
SMF170A	SMF170CA	170.0	189.00	209.00	1	275.0	0.7	1
SMF180A	SMF180CA	180.0	201.00	222.00	1	292.0	0.7	1
SMF190A	SMF190CA	190.0	209.00	243.00	1	308.0	0.6	1
SMF200A	SMF200CA	200.0	224.00	247.00	1	324.0	0.6	1
SMF210A	SMF210CA	210.0	231.00	268.00	1	340.0	0.6	1
SMF220A	SMF220CA	220.0	246.00	272.00	1	356.0	0.5	1
SMF250A		250.0	279.00	309.00	1	405.0	0.5	1
SMF300A		300.0	335.00	371.00	1	486.0	0.4	1
SMF350A		350.0	391.00	432.00	1	567.0	0.3	1
SMF400A		400.0	447.00	494.00	1	648.0	0.3	1
SMF440A		440.0	492.00	543.00	1	713.0	0.3	1

Typical Characteristics

Fig. 1 Pulse Derating Curve

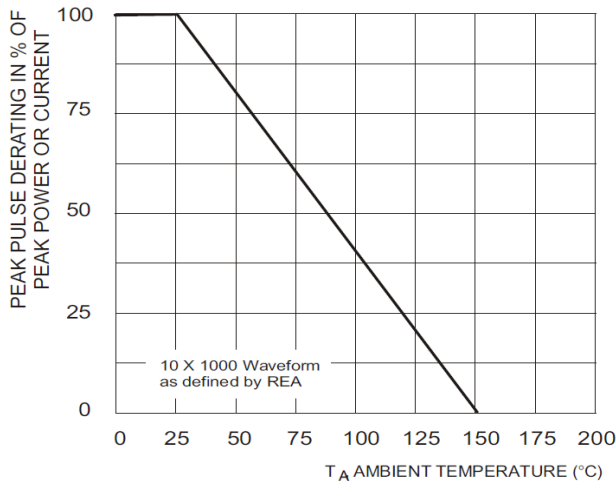


Fig. 2 Typical Total Capacitance

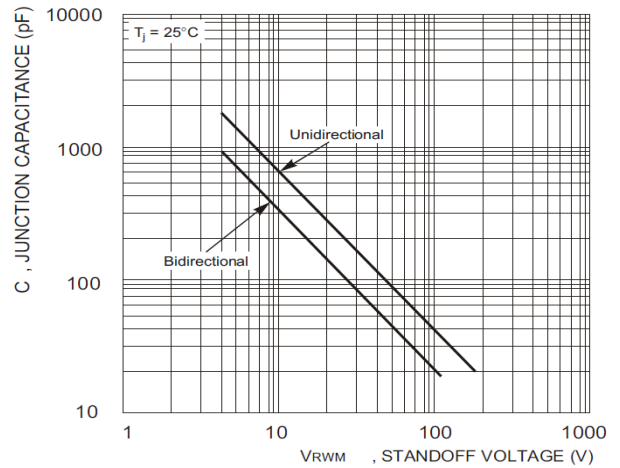


Fig. 3 Pulse rating curve

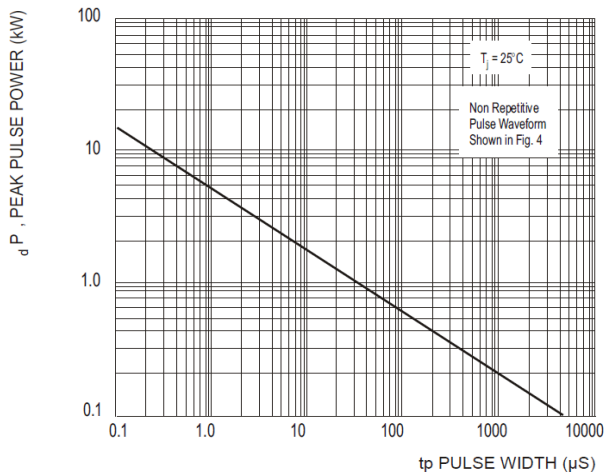


Fig. 4 Pulse Waveform

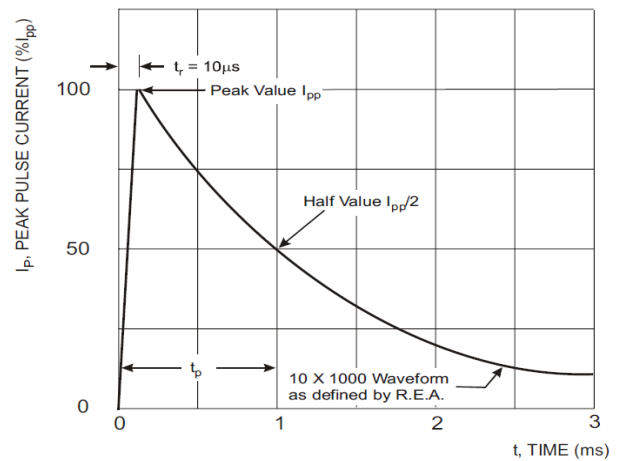


Fig. 5 Maximum Non-Repetitive Surge Current

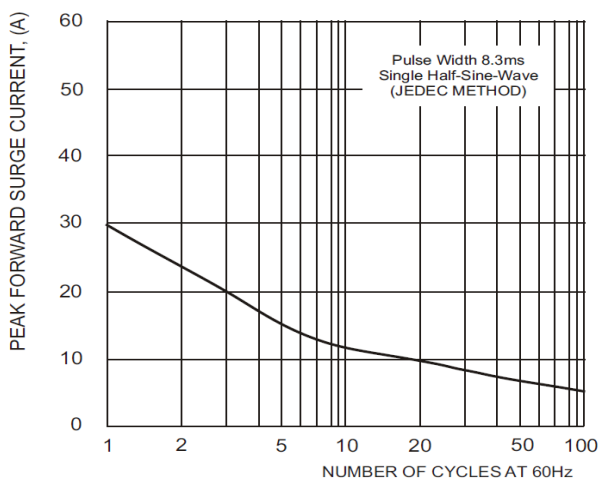
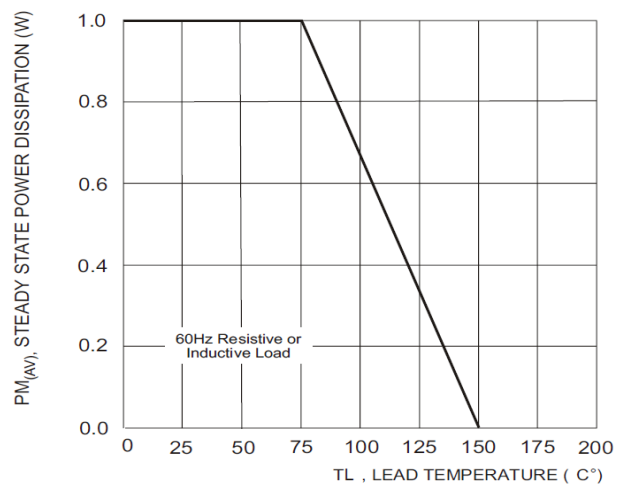
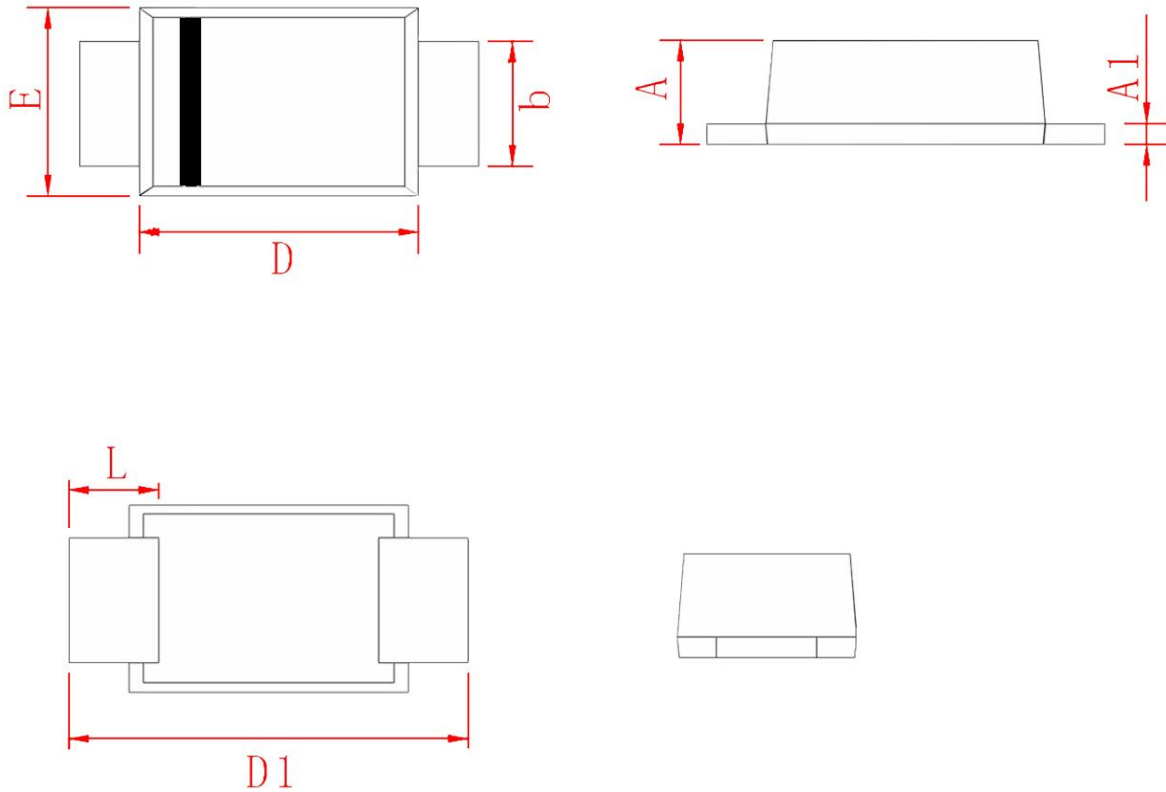


Fig. 6 Steady State Power Derating Curve



SOD-123FL Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	1.200	1.400	0.047	0.055
A1	0.120	0.250	0.005	0.010
b	0.850	1.150	0.033	0.045
D	2.650	2.950	0.104	0.116
D1	3.550	3.850	0.140	0.152
E	1.700	1.900	0.067	0.075
L	0.500	0.900	0.020	0.035