

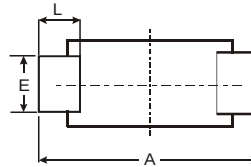
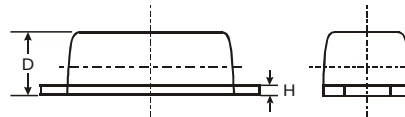
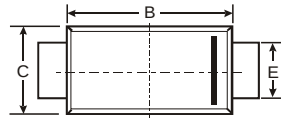
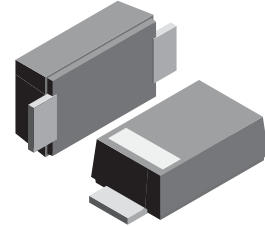
VOLTAGE RANGE: 5.0- 440 V
POWER: 200.0Watts

Features

- Glass passivated chip
- 200 W peak pulse power capability with a 10/1000 us waveform, repetitive rate (duty cycle):0.01 %
- Excellent clamping capability
- Low reverse leakage
- Very fast response time
- Lead and body according with RoHS standard

Mechanical Data

- Case: SOD-123FL Molded plastic
- Lead: Solderable per MIL-STD-750, method 2026
- Epoxy: UL 94V-0 rate flame retardant
- System: Accreditation through IATF16949 System
- High reliability grade (AEC Q101 qualified)
- Mounting position: Any



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 and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbols	Value	Unit
Peak power dissipation with a 10/1000 us waveform ⁽¹⁾	P_{PP}	200	W
Peak pulse current with a 10/1000 us waveform ⁽¹⁾	I_{PP}	See Next Table	A
Power dissipation on infinite heatsink at $T_L = 75^\circ\text{C}$	P_D	1.0	W
Peak forward surge current, 8.3 ms single half sinewave unidirectional only ⁽²⁾	I_{FSM}	30	A
Maximum instantaneous forward voltage at 10 A for unidirectional only ⁽³⁾	V_F	3.5/6.5	V
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

Note:

1)Non-repetitive current pulse per Fig.5 and derated above $T_A = 25^\circ\text{C}$ per Fig.1 ;

2)Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum ;

3) $V_F < 3.5\text{V}$ for devices of $V_{BR} < 200\text{V}$ and $V_F < 6.5\text{V}$ for devices of $V_{BR} > 201\text{V}$.

Part Number		Reverse Stand-off Voltage	Breakdown Voltage $V_{BR} @ I_T$		Test Current	Max. Clamping Voltage @ I_{PP}	Max. Peak Pulse Current	Max. Reverse Leakage @ V_{RWM}
UNI-POLAR	BI-POLAR	$V_{RWM}(V)$	Min.(V)	Max.(V)	$I_T(mA)$	$V_{C MAX}(V)$	$I_{PP}(A)$	$I_R(uA)$
TSMF5.0A	TSMF5.0CA	5.0	6.40	7.00	10	9.2	21.74	800
TSMF6.0A	TSMF6.0CA	6.0	6.67	7.37	10	10.3	19.42	800
TSMF6.5A	TSMF6.5CA	6.5	7.22	7.98	10	11.2	17.86	500
TSMF7.0A	TSMF7.0CA	7.0	7.78	8.60	10	12.0	16.67	200
TSMF7.5A	TSMF7.5CA	7.5	8.33	9.21	1	12.9	15.50	100
TSMF8.0A	TSMF8.0CA	8.0	8.89	9.83	1	13.6	14.71	50
TSMF8.5A	TSMF8.5CA	8.5	9.44	10.40	1	14.4	13.89	20
TSMF9.0A	TSMF9.0CA	9.0	10.00	11.10	1	15.4	12.99	10
TSMF10A	TSMF10CA	10.0	11.10	12.30	1	17.0	11.76	5
TSMF11A	TSMF11CA	11.0	12.20	13.50	1	18.2	10.99	1
TSMF12A	TSMF12CA	12.0	13.30	14.70	1	19.9	10.05	1
TSMF13A	TSMF13CA	13.0	14.40	15.90	1	21.5	9.30	1
TSMF14A	TSMF14CA	14.0	15.60	17.20	1	23.2	8.62	1
TSMF15A	TSMF15CA	15.0	16.70	18.50	1	24.4	8.20	1
TSMF16A	TSMF16CA	16.0	17.80	19.70	1	26.0	7.69	1
TSMF17A	TSMF17CA	17.0	18.90	20.90	1	27.6	7.25	1
TSMF18A	TSMF18CA	18.0	20.00	22.10	1	29.2	6.85	1
TSMF20A	TSMF20CA	20.0	22.20	24.50	1	32.4	6.17	1
TSMF22A	TSMF22CA	22.0	24.40	26.90	1	35.5	5.63	1
TSMF24A	TSMF24CA	24.0	26.70	29.50	1	38.9	5.14	1
TSMF26A	TSMF26CA	26.0	28.90	31.90	1	42.1	4.75	1
TSMF28A	TSMF28CA	28.0	31.10	34.40	1	45.4	4.41	1
TSMF30A	TSMF30CA	30.0	33.50	36.80	1	48.4	4.13	1
TSMF33A	TSMF33CA	33.0	36.70	40.60	1	53.3	3.75	1
TSMF36A	TSMF36CA	36.0	40.00	44.20	1	58.1	3.44	1
TSMF40A	TSMF40CA	40.0	44.40	49.10	1	64.5	3.10	1
TSMF43A	TSMF43CA	43.0	47.80	52.80	1	69.4	2.88	1
TSMF45A	TSMF45CA	45.0	50.00	55.30	1	72.7	2.75	1
TSMF48A	TSMF48CA	48.0	53.30	58.90	1	77.4	2.58	1
TSMF51A	TSMF51CA	51.0	56.70	62.70	1	82.4	2.43	1
TSMF54A	TSMF54CA	54.0	60.00	66.30	1	87.1	2.30	1
TSMF58A	TSMF58CA	58.0	64.40	71.20	1	93.6	2.14	1
TSMF60A	TSMF60CA	60.0	66.70	73.70	1	96.8	2.07	1
TSMF64A	TSMF64CA	64.0	71.10	78.60	1	103.0	1.94	1
TSMF70A	TSMF70CA	70.0	77.80	86.00	1	113.0	1.77	1
TSMF75A	TSMF75CA	75.0	83.30	92.10	1	121.0	1.65	1
TSMF78A	TSMF78CA	78.0	86.70	95.80	1	126.0	1.59	1
TSMF85A	TSMF85CA	85.0	94.4	104.0	1	137.0	1.46	1
TSMF90A	TSMF90CA	90.0	100.0	111.0	1	146.0	1.37	1
TSMF100A	TSMF100CA	100.0	111.0	123.0	1	162.0	1.23	1
TSMF110A	TSMF110CA	110.0	122.0	135.0	1	177.0	1.13	1
TSMF120A	TSMF120CA	120.0	133.0	147.0	1	193.0	1.04	1
TSMF130A	TSMF130CA	130.0	144.0	159.0	1	209.0	0.96	1
TSMF150A	TSMF150CA	150.0	167.0	185.0	1	243.0	0.82	1
TSMF160A	TSMF160CA	160.0	178.0	197.0	1	259.0	0.77	1
TSMF170A	TSMF170CA	170.0	189.0	209.0	1	275.0	0.73	1
TSMF180A	TSMF180CA	180.0	201.0	222.0	1	292.0	0.68	1
TSMF190A	TSMF190CA	190.0	209.0	243.0	1	308.0	0.65	1
TSMF200A	TSMF200CA	200.0	224.0	247.0	1	324.0	0.62	1
TSMF210A	TSMF210CA	210.0	231.0	268.0	1	340.0	0.59	1
TSMF220A	TSMF220CA	220.0	246.0	272.0	1	356.0	0.56	1
TSMF250A	TSMF250CA	250.0	279.0	309.0	1	405.0	0.49	1
TSMF300A		300.0	335.0	371.0	1	486.0	0.41	1
TSMF350A		350.0	391.0	432.0	1	567.0	0.35	1
TSMF400A		400.0	447.0	494.0	1	648.0	0.31	1
TSMF440A		440.0	492.0	543.0	1	713.0	0.28	1

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

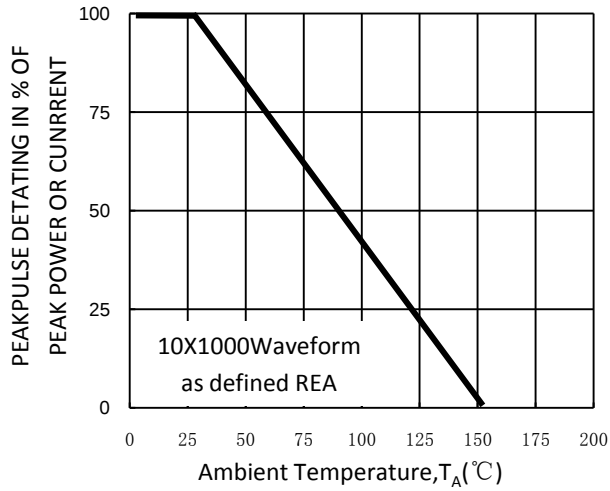


Fig. 1-Pulse Derating Curve

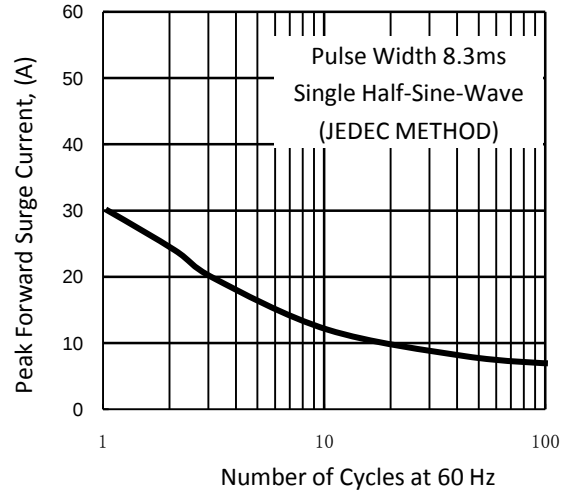


Fig. 2-Maximum Non-Repetitive Surge Current

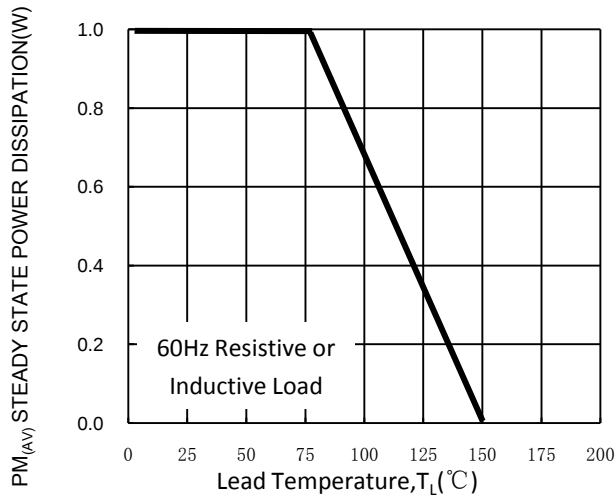


Fig. 3-Steady State Power Derating Curve

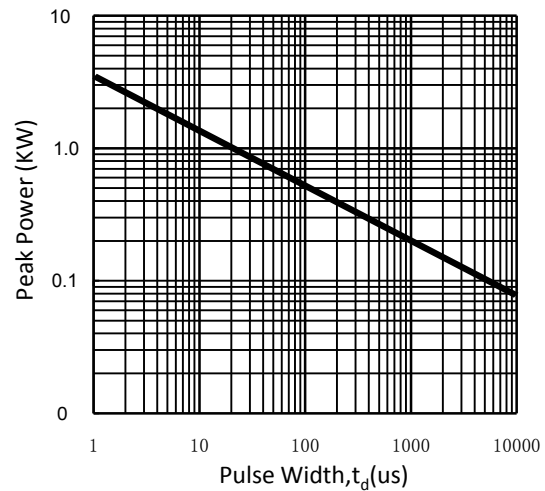


Fig. 4-Peak Pulse Power Rating Curve

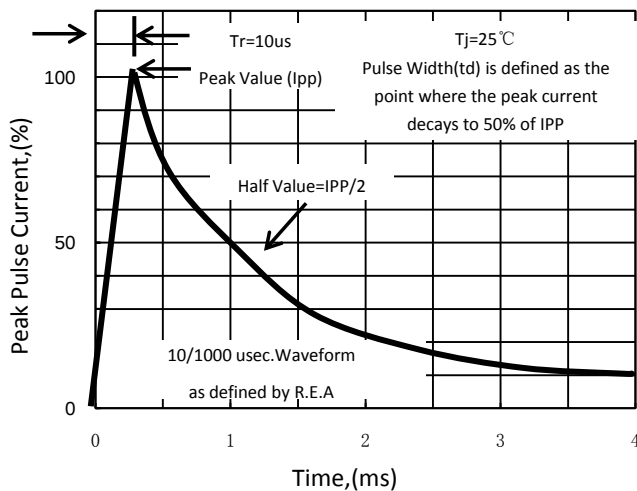


Fig. 5-Pulse Waveform

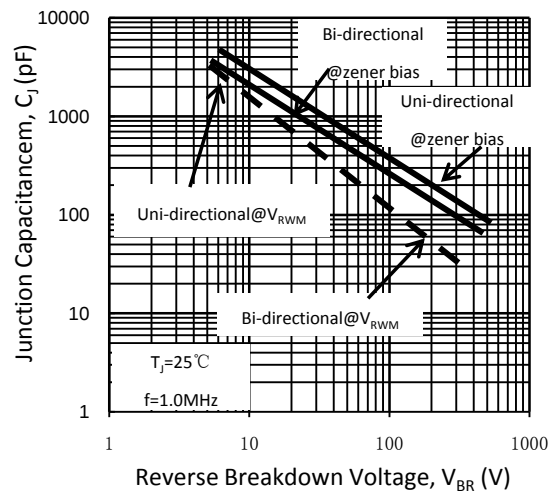


Fig. 6-Typical Junction Capacitance