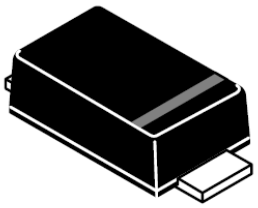
MMF5.0A/CA--MMF190A/CA

Features

- Working peak reverse voltage range – 5.0V to 190V.
- Peak power dissipation 200W @10 x 1000 us Pulse
- Low profile package.
- Excellent clamping capability.
- Glass passivated junction.
- Fast response time: typically less than 1 ns for Uni-direction.
- Typical IR less than 1uA above 10V.
- Plastic material has UL flammability classification 94V-O
- RoHS compliant in lead-free versions
- AEC -Q101 qualified.



SOD-123FL

Mechanical Characteristics

CASE: Void-free, Molded Plastic over glass passivated junction..
Mounting Position: Any
Polarity: by cathode band denotes uni-directional device.
Qualified max reflow temperature: 260°C

Maximum Ratings And Characteristics @ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Value	Units
Peak Pulse Power Dissipation on 10/1000 us Waveform (Note 1, 2, FIG.1)	P_{PPM}	Min 200	W
Peak Pulse Current of on 10/1000us Waveform (Note 1, FIG.3)	I_{PPM}	See Table 1	Amps
Operating Junction Temperature Range	T_J	-55 to 150	°C
Storage Temperature Range	T_{STG}	-55 to 150	°C

Notes:

1. Non-repetitive current pulse, per Fig.3 and derated above T_A=25°C per Fig.2.

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Electrical Specification @ Tamb 25°C

Type Number		Reverse Stand-Off Voltage	Breakdown Voltage Min. @I_T	Breakdown Voltage Max. @ I_T	Test Current	Maximum Clamping Voltage @I_{PP}	Peak Pulse Current	Reverse Leakage @V_{RMW}
Uni	Bi	V_{RMW}(V)	$V_{BR\ MIN}$(V)	$V_{BR\ MAX}$(V)	I_T (mA)	V_C(V)	I_{PP}(A)	I_R(uA)
MMF5.0A	MMF5.0CA	5.0	6.40	7.25	10	9.2	21.7	400.0
MMF6.0A	MMF6.0CA	6.0	6.67	7.67	10	10.3	19.4	400.0
MMF6.5A	MMF6.5CA	6.5	7.22	8.30	10	11.2	17.9	250.0
MMF7.0A	MMF7.0CA	7.0	7.78	8.95	10	12	16.7	100.0
MMF7.5A	MMF7.5CA	7.5	8.33	9.58	1.0	12.9	15.5	50.0
MMF8.0A	MMF8.0CA	8.0	8.89	10.23	1.0	13.6	14.7	25.0
MMF8.5A	MMF8.5CA	8.5	9.44	10.82	1.0	14.4	13.9	10.0
MMF9.0A	MMF9.0CA	9.0	10.0	11.5	1.0	15.4	13	5.0
MMF10A	MMF10CA	10	11.1	12.8	1.0	17	11.8	2.5
MMF11A	MMF11CA	11	12.2	14.0	1.0	18.2	11	2.5
MMF12A	MMF12CA	12	13.3	15.3	1.0	19.9	10.1	2.5
MMF13A	MMF13CA	13	14.4	16.5	1.0	21.5	9.3	1.0
MMF14A	MMF14CA	14	15.6	17.9	1.0	23.2	8.6	1.0
MMF15A	MMF15CA	15	16.7	19.2	1.0	24.4	8.2	1.0
MMF16A	MMF16CA	16	17.8	20.5	1.0	26	7.7	1.0
MMF17A	MMF17CA	17	18.9	21.7	1.0	27.6	7.2	1.0
MMF18A	MMF18CA	18	20.0	23.3	1.0	29.2	6.8	1.0
MMF20A	MMF20CA	20	22.2	25.5	1.0	32.4	6.2	1.0
MMF22A	MMF22CA	22	24.4	28.0	1.0	35.5	5.6	1.0
MMF24A	MMF24CA	24	26.7	30.7	1.0	38.9	5.1	1.0
MMF26A	MMF26CA	26	28.9	33.2	1.0	42.1	4.8	1.0
MMF28A	MMF28CA	28	31.1	35.8	1.0	45.4	4.4	1.0
MMF30A	MMF30CA	30	33.3	38.3	1.0	48.4	4.1	1.0
MMF33A	MMF33CA	33	36.7	42.2	1.0	53.3	3.8	1.0
MMF36A	MMF36CA	36	40.0	46.0	1.0	58.1	3.4	1.0
MMF40A	MMF40CA	40	44.4	51.1	1.0	64.5	3.1	1.0
MMF43A	MMF43CA	43	47.8	54.9	1.0	69.4	2.9	1.0
MMF45A	MMF45CA	45	50.0	57.5	1.0	72.7	2.8	1.0
MMF48A	MMF48CA	48	53.3	61.3	1.0	77.4	2.6	1.0
MMF51A	MMF51CA	51	56.7	65.2	1.0	82.4	2.4	1.0
MMF54A	MMF54CA	54	60.0	69.0	1.0	87.1	2.3	1.0
MMF58A	MMF58CA	58	64.4	74.1	1.0	93.6	2.1	1.0
MMF60A	MMF60CA	60	66.7	76.7	1.0	96.8	1.8	1.0
MMF64A	MMF64CA	64	71.1	81.8	1.0	103	1.7	1.0
MMF70A	MMF70CA	70	77.8	89.5	1.0	113	1.5	1.0
MMF75A	MMF75CA	75	83.3	95.8	1.0	121	1.4	1.0
MMF78A	MMF78CA	78	86.7	99.7	1.0	126	1.4	1.0

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Type Number		Reverse Stand-Off Voltage	Breakdown Voltage Min. @I_T	Breakdown Voltage Max. @ I_T	Test Current	Maximum Clamping Voltage @I_{PP}	Peak Pulse Current	Reverse Leakage @V_{RMW}
Uni	Bi	V_{RMW}(V)	$V_{BR\ MIN}$(V)	$V_{BR\ MAX}$(V)	I_T (mA)	V_C(V)	I_{PP}(A)	I_R(uA)
MMF85A	MMF85CA	85	94.4	108.2	1.0	137	1.3	1.0
MMF90A	MMF90CA	90	100.0	115.5	1.0	146	1.2	1.0
MMF100A	MMF100CA	100	111.0	128.0	1.0	162	1.1	1.0
MMF110A	MMF110CA	110	122.0	140.5	1.0	177	1.0	1.0
MMF120A	MMF120CA	120	133.0	153.0	1.0	193	0.9	1.0
MMF130A	MMF130CA	130	144.0	165.5	1.0	209	0.8	1.0
MMF150A	MMF150CA	150	167.0	192.5	1.0	243	0.7	1.0
MMF160A	MMF160CA	160	178.0	205.0	1.0	259	0.7	1.0
MMF170A	MMF170CA	170	189.0	217.5	1.0	275	0.6	1.0
MMF180A	MMF180CA	180	198.0	230.4	1.0	292	0.6	1.0
MMF190A	MMF190CA	190	209.0	243.2	1.0	308	0.5	1.0

Ratings and Characteristic Curves T_A=25°C unless otherwise noted

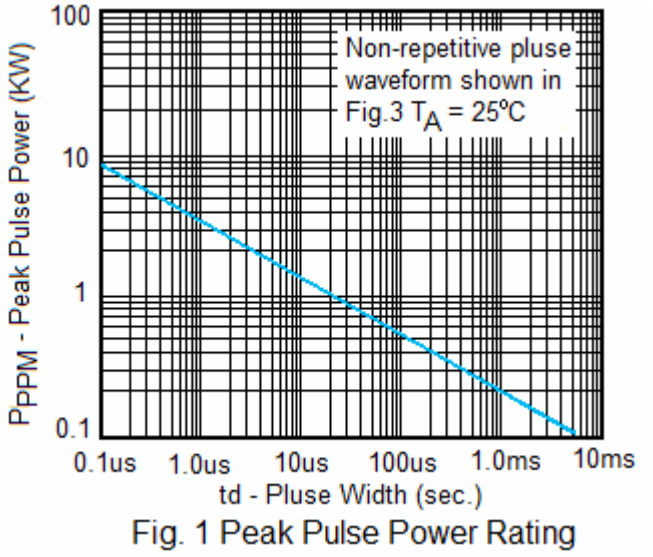


Fig. 1 Peak Pulse Power Rating

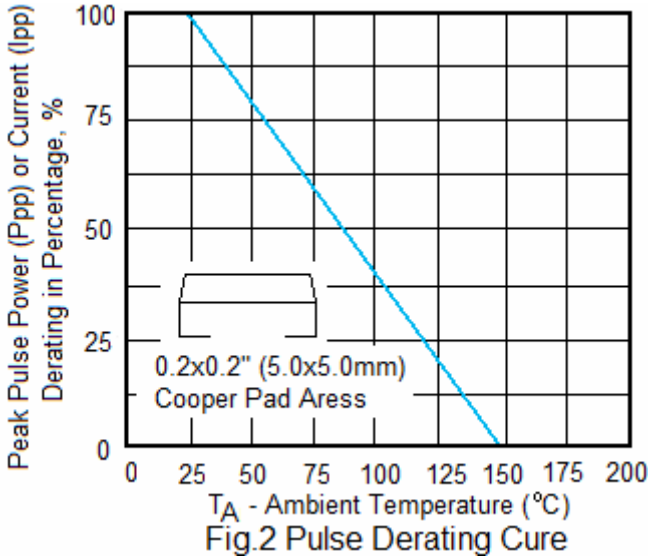


Fig.2 Pulse Derating Cure

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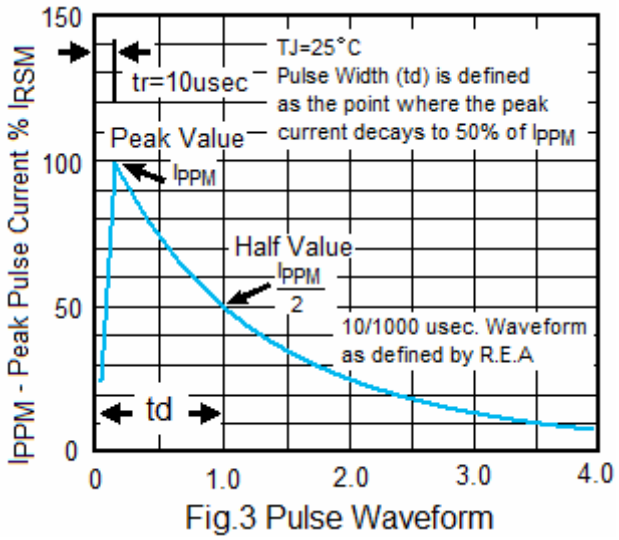
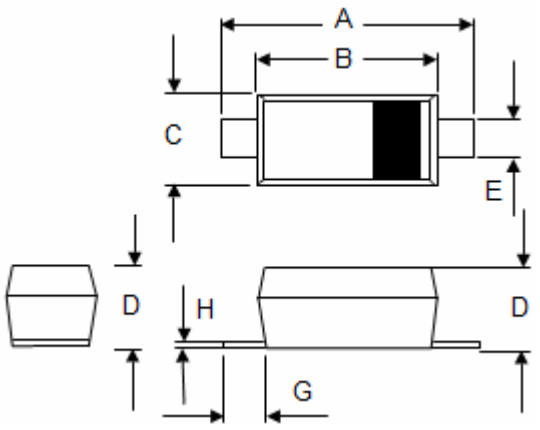


Fig.3 Pulse Waveform

Package Outline Dimensions and Pad Layouts

SOD-123FL



Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	3.40	3.85	0.142	0.150
B	2.50	2.90	0.098	0.114
C	1.40	1.80	0.055	0.071
D	0.90	1.35	0.035	0.053
E	0.50	1.10	0.020	0.043
G	0.25	------	0.010	----
H	------	0.20	----	0.008

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