SMF5.0(C)A THRU SMF170(C)A

200WATTS TRANSIENT VOLTAGE SUPPRESSOR 5.0 TO 170 VOLTS

Features

- Stand-off Voltage 5-170 Volts
- Uni and bi-directional type available (suffix"C"means bi-directional)
- Surface Mount
- Low Clamping Voltage
- 200 Watt Peak Power Dissipation
- Small, High Thermal Efficiency
- Marking Code: See Electrical Characteristics Table
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (NOTE 1)("P" Suffix designates RoHS Compliant. See ordering information)

Maximum Ratings

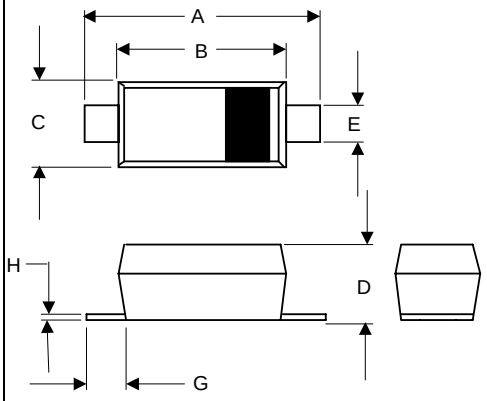
- Operating Temperature: -65°C to +150°C
- Storage Temperature: -65°C to +150°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

Peak Pulse Power (10/1000us Waveform)	P_{PP}	200W
ESD Voltage(HBM)	V_{ESD}	>16KV

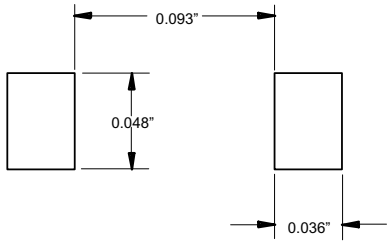
Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7

SOD-123FL



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	.037	.053	0.95	1.35	
E	.020	.039	0.50	1.00	
G	.010	-----	0.25	-----	
H	-----	.008	----	.20	

SUGGESTED SOLDER PAD LAYOUT



SMF5.0A THRU SMF170A

ELECTRICAL CHARACTERISTICS @25°C

MCC PART NUMBER Uni-Polar	Marking Code	Breakdown Voltage V_{BR} @ I_T (Volt)		TEST CURRENT I_T	RATED STANDOFF VOLTAGE V_{WM}	MAXIMUM REVERSE LEAKAGE I_D @V_{WM}	MAXIMUM CLAMPING VOLTAGE V_C @ I_{PP}	MAXIMUM PEAK PULSE CURRENT I_{PP}
		MIN	MAX	mADC	V	(μA)	V	A
SMF5.0A	5.0A	6.4	7.0	10	5.0	400	9.2	21.7
SMF6.0A	6.0A	6.67	7.37	10	6.0	400	10.3	19.4
SMF6.5A	6.5A	7.22	7.98	10	6.5	250	11.2	17.9
SMF7.0A	7.0A	7.78	8.6	10	7.0	100	12	16.7
SMF7.5A	7.5A	8.33	9.21	1.0	7.5	50	12.9	15.5
SMF8.0A	8.0A	8.89	9.83	1.0	8.0	25	13.6	14.7
SMF8.5A	8.5A	9.44	10.4	1.0	8.5	10	14.4	13.9
SMF9.0A	9.0A	10	11.1	1.0	9.0	5.0	15.4	13
SMF10A	10A	11.1	12.3	1.0	10	2.5	17	11.8
SMF11A	11A	12.2	13.5	1.0	11	2.5	18.2	11
SMF12A	12A	13.3	14.7	1.0	12	2.5	19.9	10.1
SMF13A	13A	14.4	15.9	1.0	13	1.0	21.5	9.3
SMF14A	14A	15.6	17.2	1.0	14	1.0	23.2	8.6
SMF15A	15A	16.7	18.5	1.0	15	1.0	24.4	8.2
SMF16A	16A	17.8	19.7	1.0	16	1.0	26	7.7
SMF17A	17A	18.9	20.9	1.0	17	1.0	27.6	7.2
SMF18A	18A	20	22.1	1.0	18	1.0	29.2	6.8
SMF20A	20A	22.2	24.5	1.0	20	1.0	32.4	6.2
SMF22A	22A	24.4	26.9	1.0	22	1.0	35.5	5.6
SMF24A	24A	26.7	29.5	1.0	24	1.0	38.9	5.1
SMF26A	26A	28.9	31.9	1.0	26	1.0	42.1	4.8
SMF28A	28A	31.1	34.4	1.0	28	1.0	45.4	4.4
SMF30A	30A	33.3	36.8	1.0	30	1.0	48.4	4.1
SMF33A	33A	36.7	40.6	1.0	33	1.0	53.3	3.8
SMF36A	36A	40	44.2	1.0	36	1.0	58.1	3.4
SMF40A	40A	44.4	49.1	1.0	40	1.0	64.5	3.1
SMF43A	43A	47.8	52.8	1.0	43	1.0	69.4	2.9
SMF45A	45A	50	55.3	1.0	45	1.0	72.7	2.8
SMF48A	48A	53.3	58.9	1.0	48	1.0	77.4	2.6
SMF51A	51A	56.7	62.7	1.0	51	1.0	82.4	2.4
SMF54A	54A	60	66.3	1.0	54	1.0	87.1	2.3
SMF58A	58A	64.4	71.2	1.0	58	1.0	93.6	2.1
SMF60A	60A	66.7	73.7	1.0	60	1.0	96.8	1.8
SMF64A	64A	71.1	78.6	1.0	64	1.0	103	1.7
SMF70A	70A	77.8	86	1.0	70	1.0	113	1.5
SMF75A	75A	83.3	92.1	1.0	75	1.0	121	1.4
SMF78A	78A	86.7	95.8	1.0	78	1.0	126	1.4
SMF85A	85A	94.4	104	1.0	85	1.0	137	1.3
SMF90A	90A	100	111	1.0	90	1.0	146	1.2
SMF100A	100	111	123	1.0	100	1.0	162	1.1
SMF110A	110	122	135	1.0	110	1.0	177	1.0
SMF120A	120	133	147	1.0	120	1.0	193	0.9
SMF130A	130	144	159	1.0	130	1.0	209	0.8
SMF150A	150	167	185	1.0	150	1.0	243	0.7
SMF160A	160	178	197	1.0	160	1.0	259	0.7
SMF170A	170	189	209	1.0	170	1.0	275	0.6

SMF5.0CA THRU SMF170CA

ELECTRICAL CHARACTERISTICS @25°C

MCC PART NUMBER Bi-Polar	Marking Code	Breakdown Voltage V_{BR} @ I_T (Volt)		TEST CURRENT I_T	RATED STANDOFF VOLTAGE V_{WM}	MAXIMUM REVERSE LEAKAGE I_D @V_{WM}	MAXIMUM CLAMPING VOLTAGE V_C @ I_{PP}	MAXIMUM PEAK PULSE CURRENT I_{PP}
		MIN	MAX	mADC	V	(μA)	V	A
SMF5.0CA	5.0CA	6.4	7.0	10	5.0	400	9.2	21.7
SMF6.0CA	6.0CA	6.67	7.37	10	6.0	400	10.3	19.4
SMF6.5CA	6.5CA	7.22	7.98	10	6.5	250	11.2	17.9
SMF7.0CA	7.0CA	7.78	8.6	10	7.0	100	12	16.7
SMF7.5CA	7.5CA	8.33	9.21	1.0	7.5	50	12.9	15.5
SMF8.0CA	8.0CA	8.89	9.83	1.0	8.0	25	13.6	14.7
SMF8.5CA	8.5CA	9.44	10.4	1.0	8.5	10	14.4	13.9
SMF9.0CA	9.0CA	10	11.1	1.0	9.0	5.0	15.4	13
SMF10CA	10CA	11.1	12.3	1.0	10	2.5	17	11.8
SMF11CA	11CA	12.2	13.5	1.0	11	2.5	18.2	11
SMF12CA	12CA	13.3	14.7	1.0	12	2.5	19.9	10.1
SMF13CA	13CA	14.4	15.9	1.0	13	1.0	21.5	9.3
SMF14CA	14CA	15.6	17.2	1.0	14	1.0	23.2	8.6
SMF15CA	15CA	16.7	18.5	1.0	15	1.0	24.4	8.2
SMF16CA	16CA	17.8	19.7	1.0	16	1.0	26	7.7
SMF17CA	17CA	18.9	20.9	1.0	17	1.0	27.6	7.2
SMF18CA	18CA	20	22.1	1.0	18	1.0	29.2	6.8
SMF20CA	20CA	22.2	24.5	1.0	20	1.0	32.4	6.2
SMF22CA	22CA	24.4	26.9	1.0	22	1.0	35.5	5.6
SMF24CA	24CA	26.7	29.5	1.0	24	1.0	38.9	5.1
SMF26CA	26CA	28.9	31.9	1.0	26	1.0	42.1	4.8
SMF28CA	28CA	31.1	34.4	1.0	28	1.0	45.4	4.4
SMF30CA	30CA	33.3	36.8	1.0	30	1.0	48.4	4.1
SMF33CA	33CA	36.7	40.6	1.0	33	1.0	53.3	3.8
SMF36CA	36CA	40	44.2	1.0	36	1.0	58.1	3.4
SMF40CA	40CA	44.4	49.1	1.0	40	1.0	64.5	3.1
SMF43CA	43CA	47.8	52.8	1.0	43	1.0	69.4	2.9
SMF45CA	45CA	50	55.3	1.0	45	1.0	72.7	2.8
SMF48CA	48CA	53.3	58.9	1.0	48	1.0	77.4	2.6
SMF51CA	51CA	56.7	62.7	1.0	51	1.0	82.4	2.4
SMF54CA	54CA	60	66.3	1.0	54	1.0	87.1	2.3
SMF58CA	58CA	64.4	71.2	1.0	58	1.0	93.6	2.1
SMF60CA	60CA	66.7	73.7	1.0	60	1.0	96.8	1.8
SMF64CA	64CA	71.1	78.6	1.0	64	1.0	103	1.7
SMF70CA	70CA	77.8	86	1.0	70	1.0	113	1.5
SMF75CA	75CA	83.3	92.1	1.0	75	1.0	121	1.4
SMF78CA	78CA	86.7	95.8	1.0	78	1.0	126	1.4
SMF85CA	85CA	94.4	104	1.0	85	1.0	137	1.3
SMF90CA	90CA	100	111	1.0	90	1.0	146	1.2
SMF100CA	100C	111	123	1.0	100	1.0	162	1.1
SMF110CA	110C	122	135	1.0	110	1.0	177	1.0
SMF120CA	120C	133	147	1.0	120	1.0	193	0.9
SMF130CA	130C	144	159	1.0	130	1.0	209	0.8
SMF150CA	150C	167	185	1.0	150	1.0	243	0.7
SMF160CA	160C	178	197	1.0	160	1.0	259	0.7
SMF170CA	170C	189	209	1.0	170	1.0	275	0.6

SMF5.0CA THRU SMF170CA

Electrical Characteristics

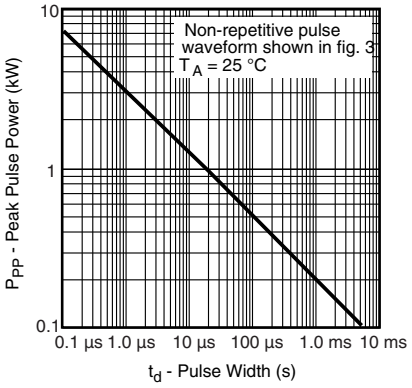


Fig. 1 - Peak Pulse Power Rating

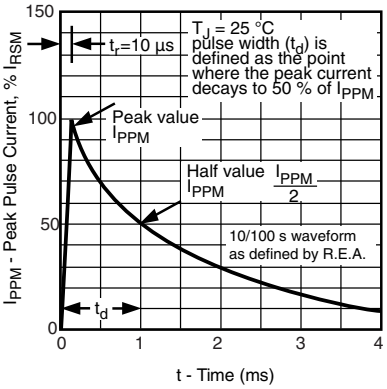


Fig. 3 - Pulse Waveform

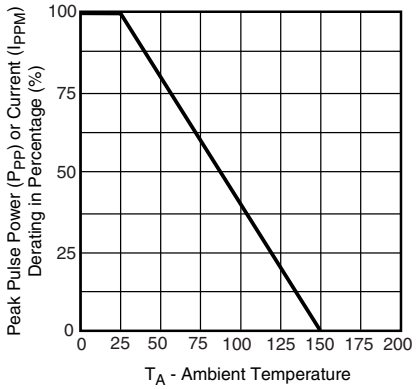


Fig. 2 - Pulse Derating Curve