Micro Commercial Components

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20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

SM4F5.0A THRU SM4F170A

400WATTS TRANSIENT VOLTAGE SUPPRESSOR 5.0 TO 170 VOLTS

Features

- Halogen free available upon request by adding suffix "-HF"
- Stand-off Voltage 5.0-170 Volts
- Uni Polar Unit
- Low Leakage
- Excellent Clamping Capability 400
- Watt Peak Power Dissipation Very
- Fast Response Time
- 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)

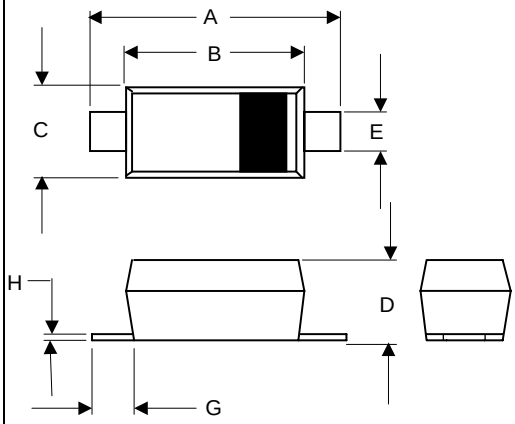
Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

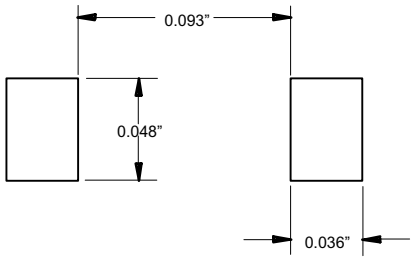
Peak Pulse Power (10/1000us Waveform)	P_{PP}	400W
Power Dissipation On Infinite Heatsink @ T_L = 75 °C	P_D	1.0W
Peak Forward Surge Current, 8.3 ms Single Half Sinewave Unidirectional Only (NOTE 2)	I_{FSM}	30A
Maximum Instantaneous Forward Voltage @ 25 A for Unidirectional Only	V_F	3.5V

SOD-123FL



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.122	2.55	3.10	
C	.055	.075	1.40	1.90	
D	.035	.053	0.90	1.35	
E	.020	.041	0.50	1.05	
G	.010	-----	0.25	-----	
H	-----	.010	----	.25	

SUGGESTED SOLDER PAD LAYOUT



Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7
2. Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum

ELECTRICAL CHARACTERISTICS @25°C

Part Number (Uni)	Device Marking Code	Breakdown Voltage V_{BR} @I_T			Maximum Reverse Leakage I_R @V_{RWM} (μA)	Working Peak Reverse Voltage V_{RWM} (V)	Maximum Reverse Surge Current I_{PP} (A)	Maximum Clamping Voltage V_C @I_{PP} (V)
	Uni	Min (V)	Max (V)	I_T (mA)				
SM4F5.0A	F5.0	6.40	7.00	10	800	5.0	43.50	9.20
SM4F6.0A	F6.0	6.67	7.37	10	800	6.0	38.80	10.3
SM4F6.5A	F6.5	7.22	7.98	10	500	6.5	35.70	11.2
SM4F7.0A	F7.0	7.78	8.60	10	200	7.0	33.30	12.0
SM4F7.5A	F7.5	8.33	9.21	1	100	7.5	31.00	12.9
SM4F8.0A	F8.0	8.89	9.83	1	50	8.0	29.40	13.6
SM4F8.5A	F8.5	9.44	10.40	1	20	8.5	27.70	14.4
SM4F9.0A	F9.0	10.00	11.10	1	10	9.0	26.00	15.4
SM4F10A	F10	11.10	12.30	1	5	10.0	23.50	17.0
SM4F11A	F11	12.20	13.50	1	1	11.0	21.98	18.2
SM4F12A	F12	13.30	14.70	1	1	12.0	20.10	19.9
SM4F13A	F13	14.40	15.90	1	1	13.0	18.60	21.5
SM4F14A	F14	15.60	17.20	1	1	14.0	17.24	23.2
SM4F15A	F15	16.70	18.50	1	1	15.0	16.39	24.4
SM4F16A	F16	17.80	19.70	1	1	16.0	15.38	26.0
SM4F17A	F17	18.90	20.90	1	1	17.0	14.49	27.6
SM4F18A	F18	20.00	22.10	1	1	18.0	13.70	29.2
SM4F19A	F19	21.10	23.30	1	1	19.0	13.00	30.8
SM4F20A	F20	22.20	24.50	1	1	20.0	12.35	32.4
SM4F22A	F22	24.40	26.90	1	1	22.0	11.27	35.5
SM4F24A	F24	26.70	29.50	1	1	24.0	10.28	38.9
SM4F26A	F26	28.90	31.90	1	1	26.0	9.50	42.1
SM4F28A	F28	31.10	34.40	1	1	28.0	8.81	45.4
SM4F30A	F30	33.30	36.80	1	1	30.0	8.26	48.4
SM4F33A	F33	36.70	40.60	1	1	33.0	7.50	53.3
SM4F36A	F36	40.00	44.20	1	1	36.0	6.88	58.1
SM4F40A	F40	44.40	49.10	1	1	40.0	6.20	64.5
SM4F43A	F43	47.80	52.80	1	1	43.0	5.70	69.4
SM4F45A	F45	50.00	55.30	1	1	45.0	5.50	72.7
SM4F48A	F48	53.30	58.90	1	1	48.0	5.20	77.4
SM4F51A	F51	56.70	62.70	1	1	51.0	4.90	82.4
SM4F54A	F54	60.00	66.30	1	1	54.0	4.60	87.1
SM4F58A	F58	64.40	71.20	1	1	58.0	4.30	93.6
SM4F60A	F60	66.70	73.70	1	1	60.0	4.10	96.8
SM4F64A	F64	71.10	78.60	1	1	64.0	3.90	103
SM4F70A	F70	77.80	86.00	1	1	70.0	3.50	113
SM4F75A	F75	83.30	92.10	1	1	75.0	3.30	121
SM4F78A	F78	86.70	95.80	1	1	78.0	2.20	126
SM4F85A	F85	94.40	104	1	1	85.0	2.90	137
SM4F90A	F90	100	111	1	1	90.0	2.70	146
SM4F100A	F100	111	123	1	1	100	2.50	162
SM4F110A	F110	122	135	1	1	110	2.30	177
SM4F120A	F120	133	147	1	1	120	2.10	193
SM4F130A	F130	144	159	1	1	130	1.90	209
SM4F150A	F150	167	185	1	1	150	1.60	243
SM4F160A	F160	178	197	1	1	160	1.50	259
SM4F170A	F170	189	209	1	1	170	1.50	275

Electrical Characteristics

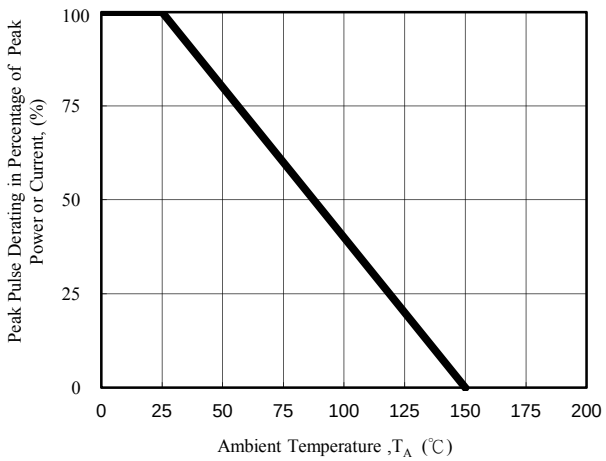


Fig. 1 - Pulse Derating Curve

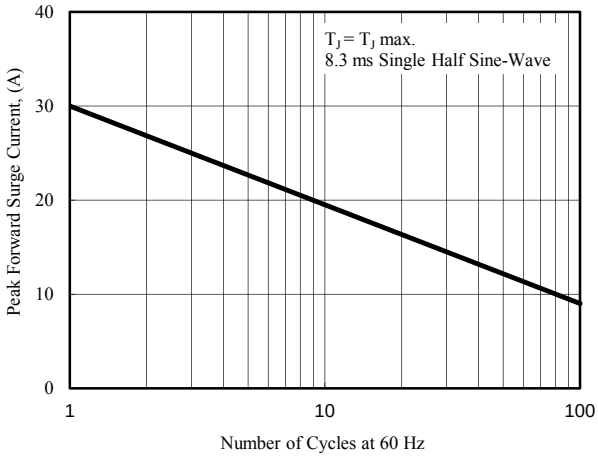


Fig. 2 - Maximum Non-Repetitive Surge Current

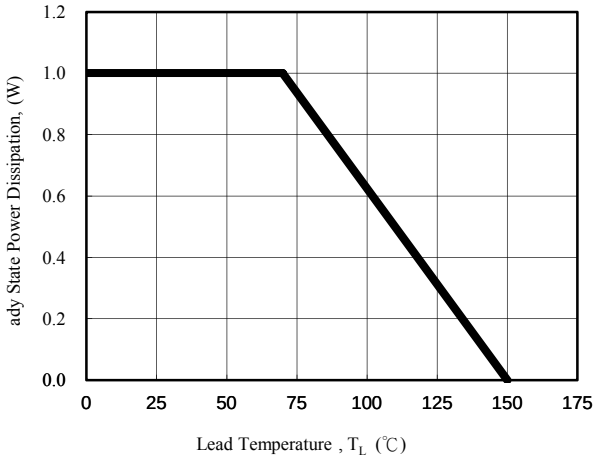


Fig. 3 - Steady State Power Derating Curve

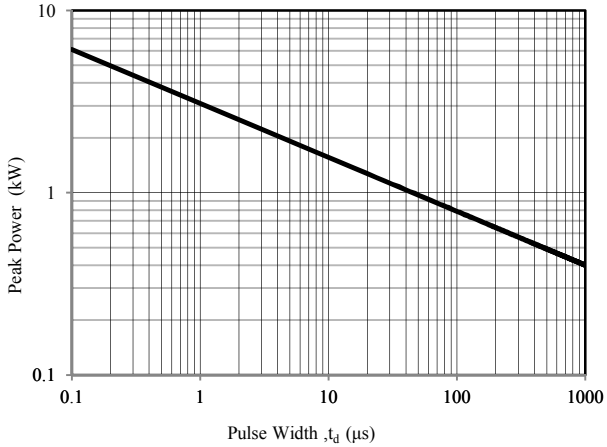


Fig. 4 - Peak Pulse Power Rating Curve

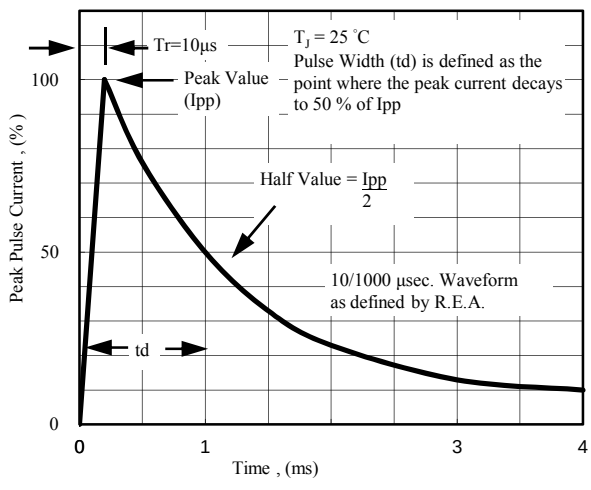


Fig. 5 - Pulse Waveform

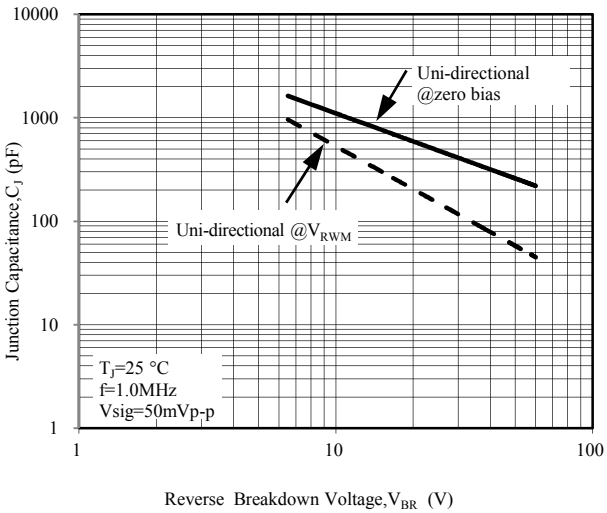


Fig. 6 - Typical Junction Capacitance

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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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