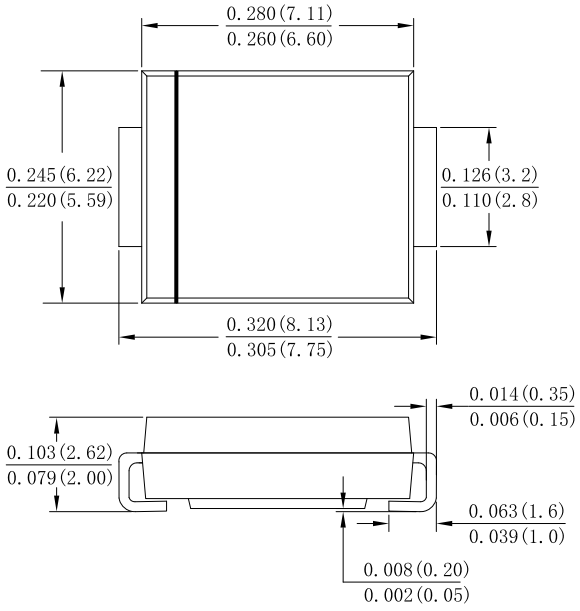
1.5SMC Series

1.5SMC6.8V THRU 1.5SMC440V

FEATURES

- For surface mounted applications in order to optimize board space.
- Glass passivated junction
- Low inductance
- Plastic package has Underwriters Laboratory Fammability Classification 94V-0
- High temperature soldering : 260°C /10 seconds at terminals

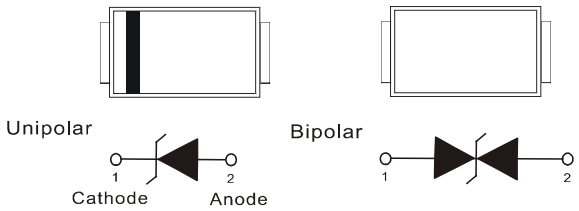
Case: SMC(DO-214AB)



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: SMC(DO-214AB)
- Terminals: Solder plated,solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ Cambient temperature unless otherwise specified.Resistive or inductive load,
For Capacitive load deratecurrent by 20%.

Parameter	Symbol	Value	Unit
Peak pulse power dissipation with a 10/1000 μs waveform (1) Fig.4	P_{PPM}	1500	W
Peak pulse current with a waveform (1)	I_{PPM}	See next table	A
Power dfissfipatfion on finffinfite heatsfink at TL=75°C	P_D	6.5	W
Peak forward surge current 8.3 ms single half sine-wave uni-directional only (2)	I_{FSM}	200	A
Maxfimum finstantaneous forward voltage at 100A for unfidfirctfional only	V_F	5.0	V
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	°C

Note:

(1) Non-repetitive current pulse per Fig.5 and derated above T_A=25°C per Fig.1.

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

1.5SMC Series

1.5SMC6.8V THRU 1.5SMC440V

Ratings And Characteristics Curves (T_A = 25 °C unless otherwise noted)

Part Number (Uni)	Part Number (Bi)	Marking Code		Breakdown Voltage V_{BR}@I_T			Maximum Reverse Leakage I_R@V_{RWM} (uA)	Working Peak Reverse VoltageV_{RWM} (v)	Maximum Reverse Surge Current Ipp(A)	Maximum Clamping Voltage Vc@ Ipp(V)
		Uni	Bi	Min(V)	Max(V)	I_T(mA)				
1.5SMC6.8A	1.5SMC6.8CA	6V8A	6V8CA	6.46	7.14	10	1000	5.8	142.86	10.5
1.5SMC7.5A	1.5SMC7.5CA	7V5A	7V5CA	7.13	7.88	10	500	6.4	132.74	11.3
1.5SMC8.2A	1.5SMC8.2CA	8V2A	8V2CA	7.79	8.61	10	200	7	123.97	12.1
1.5SMC9.1A	1.5SMC9.1CA	9V1A	9V1CA	8.65	9.56	1	50	7.8	111.94	13.4
1.5SMC10A	1.5SMC10CA	10A	10CA	9.5	10.5	1	10	8.6	103.45	14.5
1.5SMC11A	1.5SMC11CA	11A	11CA	10.45	11.55	1	1	9.4	96.15	15.6
1.5SMC12A	1.5SMC12CA	12A	12CA	11.4	12.6	1	1	10.2	89.82	16.7
1.5SMC13A	1.5SMC13CA	13A	13CA	12.35	13.65	1	1	11.1	82.42	18.2
1.5SMC15A	1.5SMC15CA	15A	15CA	14.25	15.75	1	1	12.8	70.75	21.2
1.5SMC16A	1.5SMC16CA	16A	16CA	15.2	16.8	1	1	13.6	66.67	22.5
1.5SMC18A	1.5SMC18CA	18A	18CA	17.1	18.9	1	1	15.3	59.52	25.2
1.5SMC20A	1.5SMC20CA	20A	20CA	19	21	1	1	17.1	54.15	27.7
1.5SMC22A	1.5SMC22CA	22A	22CA	20.9	23.1	1	1	18.8	49.02	30.6
1.5SMC24A	1.5SMC24CA	24A	24CA	22.8	25.2	1	1	20.5	45.18	33.2
1.5SMC27A	1.5SMC27CA	27A	27CA	25.65	28.35	1	1	23.1	40	37.5
1.5SMC30A	1.5SMC30CA	30A	30CA	28.5	31.5	1	1	25.6	36.23	41.4
1.5SMC33A	1.5SMC33CA	33A	33CA	31.35	34.65	1	1	28.2	32.82	45.7
1.5SMC36A	1.5SMC36CA	36A	36CA	34.2	37.8	1	1	30.8	30.06	50
1.5SMC39A	1.5SMC39CA	39A	39CA	37.05	40.95	1	1	33.3	27.83	53.9
1.5SMC43A	1.5SMC43CA	43A	43CA	40.85	45.15	1	1	36.8	25.3	59.3
1.5SMC47A	1.5SMC47CA	47A	47CA	44.65	49.35	1	1	40.2	23.15	64.8
1.5SMC51A	1.5SMC51CA	51A	51CA	48.45	53.55	1	1	43.6	21.4	70.1
1.5SMC56A	1.5SMC56CA	56A	56CA	53.2	58.8	1	1	47.8	19.48	77
1.5SMC62A	1.5SMC62CA	62A	62CA	58.9	65.1	1	1	53	17.65	85
1.5SMC68A	1.5SMC68CA	68A	68CA	64.6	71.4	1	1	58.1	16.3	92
1.5SMC75A	1.5SMC75CA	75A	75CA	71.25	78.75	1	1	64.1	14.56	103
1.5SMC82A	1.5SMC82CA	82A	82CA	77.9	86.1	1	1	70.1	13.27	113
1.5SMC91A	1.5SMC91CA	91A	91CA	86.45	95.35	1	1	77.8	12	125
1.5SMC100A	1.5SMC100CA	100A	100CA	95	105	1	1	85.5	10.95	137
1.5SMC110A	1.5SMC110CA	110A	110CA	104.5	115.5	1	1	94	9.87	152
1.5SMC120A	1.5SMC120CA	120A	120CA	114	126	1	1	102	9.09	165
1.5SMC130A	1.5SMC130CA	130A	130CA	123.5	136.5	1	1	111	8.38	179
1.5SMC150A	1.5SMC150CA	150A	150CA	142.5	157.5	1	1	128	7.25	207
1.5SMC160A	1.5SMC160CA	160A	160CA	152	168	1	1	136	6.85	219
1.5SMC170A	1.5SMC170CA	170A	170CA	161.5	178.5	1	1	145	6.41	234

Ratings And Characteristics Curves (T_A = 25 °C unless otherwise noted)

Part Number (Uni)	Part Number (Bi)	Marking Code		Breakdown Voltage V_{BR}@I_T			Maximum Reverse Leakage I_R@V_{RWM} (uA)	Working Peak Reverse VoltageV_{RWM} (v)	Maximum Reverse Surge Current Ipp(A)	Maximum Clamping Voltage Vc@ Ipp(V)
		Uni	Bi	Min(V)	Max(V)	I_T(mA)				
1.5SMC180A	1.5SMC180CA	180A	180CA	171	189	1	1	154	6.1	246
1.5SMC200A	1.5SMC200CA	200A	200CA	190	210	1	1	171	5.47	274
1.5SMC220A	1.5SMC220CA	220A	220CA	209	231	1	1	185	4.57	328
1.5SMC250A	1.5SMC250CA	250A	250CA	237.5	262.5	1	1	214	4.36	344
1.5SMC300A	1.5SMC300CA	300A	300CA	285	315	1	1	256	3.62	414
1.5SMC350A	1.5SMC350CA	350A	350CA	332.5	367.5	1	1	299.3	3.11	482
1.5SMC380A	1.5SMC380CA	380A	380CA	361	399	1	1	324.9	2.86	524.4
1.5SMC400A	1.5SMC400CA	400A	400CA	380	420	1	1	342	2.72	548
1.5SMC440A	1.5SMC440CA	440A	440CA	418	462	1	1	376.2	2.47	602

Note:

① Surge waveform: 10/1000μs

V_{RWM} : Stand-off voltage -- Maximum voltage that can be applied

V_{BR}: Breakdown voltage

V_C: Clamping voltage -- Peak voltage measured across the suppressor at a specified I_{PP}

I_R: Reverse leakage current

Ratings And Characteristics Curves (T_A = 25 °C unless otherwise noted)

Fig.1 Derating Curve

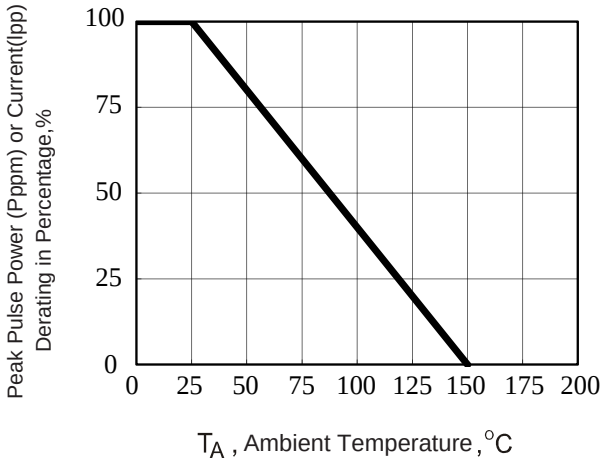


Fig.2 Maximum Non-repetitive Forward Surge Current Unidirectional only

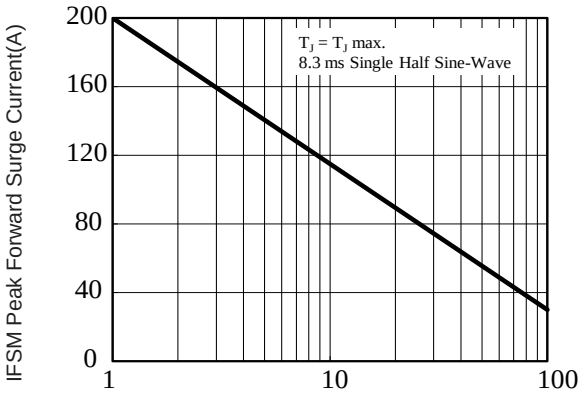


Fig.3 Steady State Power Derating Curve

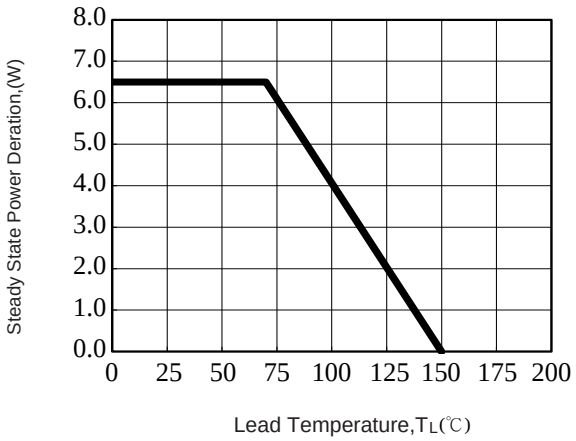


Fig. 4 Peak Pulse Power Rating Curve

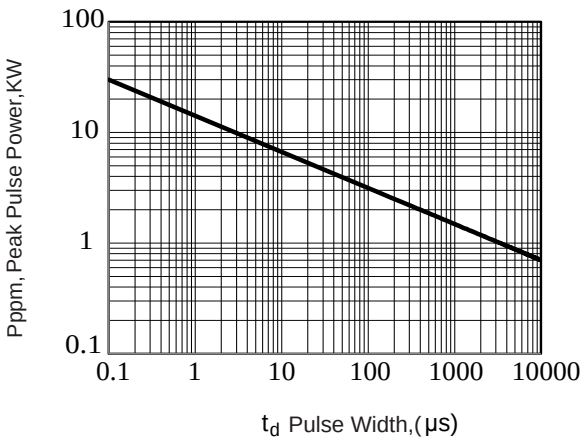


Fig.5 Clamping Power Pulse Waveform

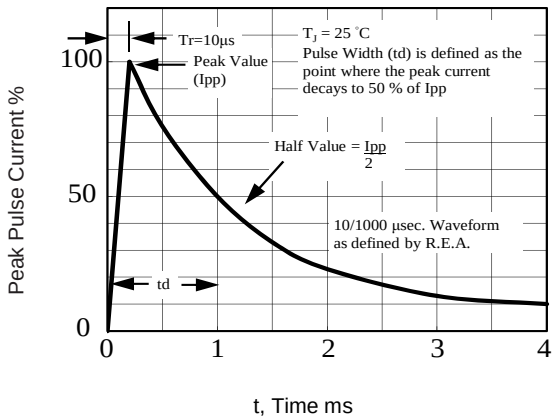
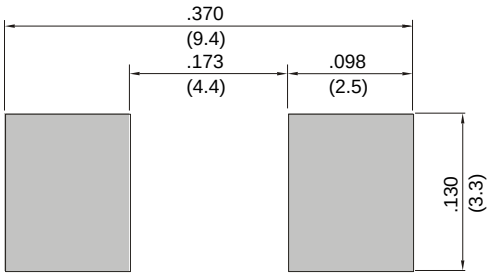


Fig.6 Mounting PAD Layout



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