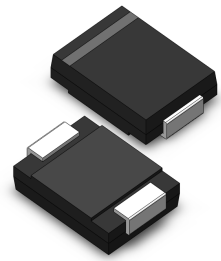
1.5SMC6.8A(CA) - 1.5SMC440A(CA)

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

VOLTAGE RANGE: 6.8 - 440 V
POWER: 1500Watts



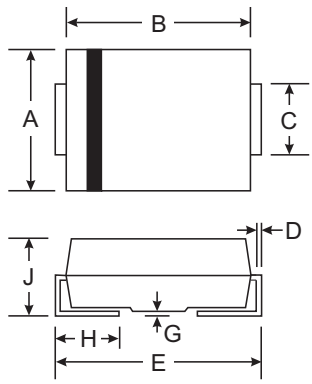
Features

- Glass Passivated Die Construction
- Uni- and Bi-Directional Versions Available
- Excellent Clamping Capability
- Fast Response Time
- Plastic Case Material has UL Flammability Classification Rating 94V-O

Mechanical Data

- Case :DO-214AB(SMC)
- Terminals : Solder plated , solderable per MIL-STD-750, method 2026
- Marking: Date Code and Marking Code See Page 2
- Weight: 0.21 grams (approximate)

RoHS COMPLIANT



SMC/DO-214AB		
Dim	**Min**	**Max**
A	5.59	6.22
B	6.60	7.11
C	2.75	3.18
D	0.15	0.31
E	7.75	8.13
G	0.10	0.20
H	0.76	1.52
J	2.00	2.62
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation (Non repetitive current pulse derated above T_A = 25°C) (Note 1)	P_{PK}	1500	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method) (Notes 1, 2, & 3)	I_{FSM}	200	A
Steady State Power Dissipation @ T_L = 75°C	$PM_{(AV)}$	5.0	W
Instantaneous Forward Voltage @ I_{PP} = 100A (Notes 1 & 3)	V_F	See Note 5	V
Operating Temperature Range	T_j	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +175	°C

NOTES:1. Non-repetitive current pulse ,per Fig. 3 and derated above T_A=25℃ per Fig. 1.

2. Thermal Resistance junction to Lead.

3. 8.3ms single half-wave duty cycle=4 pulses per minutes maximum (uni-directional units only).

TYPE		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_{RWM}
(UNI)	(BI)	V_{RWM}(V)	$V_{BR\ MIN}$(V)	$V_{BR\ MAX}$(V)	I_T (mA)	V_C(V)	I_{PP}(A)	I_R(uA)
1.5SMC6.8	1.5SMC6.8C	5.50	6.12	7.48	10	10.8	140.7	1000.0
1.5SMC6.8A	1.5SMC6.8CA	5.80	6.45	7.14	10	10.5	144.8	1000.0
1.5SMC7.5	1.5SMC7.5C	6.05	6.75	8.25	10	11.7	129.9	500.0
1.5SMC7.5A	1.5SMC7.5CA	6.40	7.13	7.88	10	11.3	134.5	500.0
1.5SMC8.2	1.5SMC8.2C	6.63	7.38	9.02	10	12.5	121.6	200.0
1.5SMC8.2A	1.5SMC8.2CA	7.02	7.79	8.61	10	12.1	125.6	200.0
1.5SMC9.1	1.5SMC9.1C	7.37	8.19	10.0	1.0	13.8	110.1	50.0
1.5SMC9.1A	1.5SMC9.1CA	7.78	8.65	9.55	1.0	13.4	113.4	50.0
1.5SMC10	1.5SMC10C	8.10	9.00	11.0	1.0	15.0	101.3	10.0
1.5SMC10A	1.5SMC10CA	8.55	9.50	10.5	1.0	14.5	104.8	10.0
1.5SMC11	1.5SMC11C	8.92	9.90	12.1	1.0	16.2	93.8	5.0
1.5SMC11A	1.5SMC11CA	9.40	10.5	11.6	1.0	15.6	97.4	5.0
1.5SMC12	1.5SMC12C	9.72	10.8	13.2	1.0	17.3	87.9	5.0
1.5SMC12A	1.5SMC12CA	10.2	11.4	12.6	1.0	16.7	91.0	5.0
1.5SMC13	1.5SMC13C	10.5	11.7	14.3	1.0	19.0	80.0	5.0
1.5SMC13A	1.5SMC13CA	11.1	12.4	13.7	1.0	18.2	83.5	5.0
1.5SMC15	1.5SMC15C	12.1	13.5	16.5	1.0	22.0	69.1	5.0
1.5SMC15A	1.5SMC15CA	12.8	14.3	15.8	1.0	21.2	71.7	5.0
1.5SMC16	1.5SMC16C	12.9	14.4	17.6	1.0	23.5	64.7	5.0
1.5SMC16A	1.5SMC16CA	13.6	15.2	16.8	1.0	22.5	67.6	5.0
1.5SMC18	1.5SMC18C	14.5	16.2	19.8	1.0	26.5	57.4	5.0
1.5SMC18A	1.5SMC18CA	15.3	17.1	18.9	1.0	25.2	60.3	5.0
1.5SMC20	1.5SMC20C	16.2	18.0	22.0	1.0	29.1	52.2	5.0
1.5SMC20A	1.5SMC20CA	17.1	19.0	21.0	1.0	27.7	54.9	5.0
1.5SMC22	1.5SMC22C	17.8	19.8	24.2	1.0	31.9	47.6	5.0
1.5SMC22A	1.5SMC22CA	18.8	20.9	23.1	1.0	30.6	49.7	5.0
1.5SMC24	1.5SMC24C	19.4	21.6	26.4	1.0	34.7	43.8	5.0
1.5SMC24A	1.5SMC24CA	20.5	22.8	25.2	1.0	33.2	45.8	5.0
1.5SMC27	1.5SMC27C	21.8	24.3	29.7	1.0	39.1	38.9	5.0
1.5SMC27A	1.5SMC27CA	23.1	25.7	28.4	1.0	37.5	40.5	5.0
1.5SMC30	1.5SMC30C	24.3	27.0	33.0	1.0	43.5	34.9	5.0
1.5SMC30A	1.5SMC30CA	25.6	28.5	31.5	1.0	41.4	36.7	5.0
1.5SMC33	1.5SMC33C	26.8	29.7	36.3	1.0	47.7	31.9	5.0
1.5SMC33A	1.5SMC33CA	28.2	31.4	34.7	1.0	45.7	33.3	5.0
1.5SMC36	1.5SMC36C	29.1	32.4	39.6	1.0	52.0	29.2	5.0
1.5SMC36A	1.5SMC36CA	30.8	34.2	37.8	1.0	49.9	30.5	5.0
1.5SMC39	1.5SMC39C	31.6	35.1	42.9	1.0	56.4	27.0	5.0
1.5SMC39A	1.5SMC39CA	33.3	37.1	41.0	1.0	53.9	28.2	5.0
1.5SMC43	1.5SMC43C	34.8	38.7	47.3	1.0	61.9	24.6	5.0
1.5SMC43A	1.5SMC43CA	36.8	40.9	45.2	1.0	59.3	25.6	5.0
1.5SMC47	1.5SMC47C	38.1	42.3	51.7	1.0	67.8	22.4	5.0
1.5SMC47A	1.5SMC47CA	40.2	44.7	49.4	1.0	64.8	23.5	5.0
1.5SMC51	1.5SMC51C	41.3	45.9	56.1	1.0	73.5	20.7	5.0
1.5SMC51A	1.5SMC51CA	43.6	48.5	53.6	1.0	70.1	21.7	5.0
1.5SMC56	1.5SMC56C	45.4	50.4	61.6	1.0	80.5	18.9	5.0
1.5SMC56A	1.5SMC56CA	47.8	53.2	58.8	1.0	77.0	19.7	5.0

TYPE		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_{RWM}
(UNI)	(BI)	V_{RWM}(V)	$V_{BR\ MIN}$(V)	$V_{BR\ MAX}$(V)	I_T (mA)	V_C(V)	I_{PP}(A)	I_R(uA)
1.5SMC62	1.5SMC62C	50.2	55.8	68.2	1.0	89.0	17.1	5.0
1.5SMC62A	1.5SMC62CA	53.0	58.9	65.1	1.0	85.0	17.9	5.0
1.5SMC68	1.5SMC68C	55.1	61.2	74.8	1.0	98.0	13.5	5.0
1.5SMC68A	1.5SMC68CA	58.1	64.6	71.4	1.0	92.0	16.5	5.0
1.5SMC75	1.5SMC75C	60.7	67.5	82.5	1.0	108	14.1	5.0
1.5SMC75A	1.5SMC75CA	64.1	71.3	78.8	1.0	103	14.8	5.0
1.5SMC82	1.5SMC82C	66.4	73.8	90.2	1.0	118	12.9	5.0
1.5SMC82A	1.5SMC82CA	70.1	77.9	86.1	1.0	113	13.5	5.0
1.5SMC91	1.5SMC91C	73.7	81.9	100	1.0	131	11.6	5.0
1.5SMC91A	1.5SMC91CA	77.8	86.5	95.5	1.0	125	12.2	5.0
1.5SMC100	1.5SMC100C	81.0	90.0	110	1.0	144	10.6	5.0
1.5SMC100A	1.5SMC100CA	85.5	95.0	105	1.0	137	11.1	5.0
1.5SMC110	1.5SMC110C	89.2	99.0	121	1.0	158	9.6	5.0
1.5SMC110A	1.5SMC110CA	94.0	105	116	1.0	152	10.0	5.0
1.5SMC120	1.5SMC120C	97.2	108	132	1.0	173	8.7	5.0
1.5SMC120A	1.5SMC120CA	102	114	126	1.0	165	9.2	5.0
1.5SMC130	1.5SMC130C	105	117	143	1.0	187	8.1	5.0
1.5SMC130A	1.5SMC130CA	111	124	137	1.0	179	8.5	5.0
1.5SMC150	1.5SMC150C	121	135	165	1.0	215	7.1	5.0
1.5SMC150A	1.5SMC150CA	128	143	158	1.0	207	7.3	5.0
1.5SMC160	1.5SMC160C	130	144	176	1.0	230	6.6	5.0
1.5SMC160A	1.5SMC160CA	136	152	168	1.0	219	6.9	5.0
1.5SMC170	1.5SMC170C	138	153	187	1.0	244	6.2	5.0
1.5SMC170A	1.5SMC170CA	145	162	179	1.0	234	6.5	5.0
1.5SMC180	1.5SMC180C	146	162	198	1.0	258	5.9	5.0
1.5SMC180A	1.5SMC180CA	154	171	189	1.0	246	6.2	5.0
1.5SMC200	1.5SMC200C	162	180	220	1.0	287	5.3	5.0
1.5SMC200A	1.5SMC200CA	171	190	210	1.0	274	5.5	5.0
1.5SMC220	1.5SMC220C	175	198	242	1.0	344	4.4	5.0
1.5SMC220A	1.5SMC220CA	185	209	231	1.0	328	4.6	5.0
1.5SMC250	1.5SMC250C	202	225	275	1.0	360	4.2	5.0
1.5SMC250A	1.5SMC250CA	214	237	263	1.0	344	4.4	5.0
1.5SMC300	1.5SMC300C	243	270	330	1.0	430	3.5	5.0
1.5SMC300A	1.5SMC300CA	256	285	315	1.0	414	3.7	5.0
1.5SMC350	1.5SMC350C	284	315	385	1.0	504	3.0	5.0
1.5SMC350A	1.5SMC350CA	300	333	368	1.0	482	3.2	5.0
1.5SMC400	1.5SMC400C	324	360	440	1.0	574	2.6	5.0
1.5SMC400A	1.5SMC400CA	342	380	420	1.0	548	2.8	5.0
1.5SMC440	1.5SMC440C	356	396	484	1.0	631	2.4	5.0
1.5SMC440A	1.5SMC440CA	376	418	462	1.0	600	2.5	5.0

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

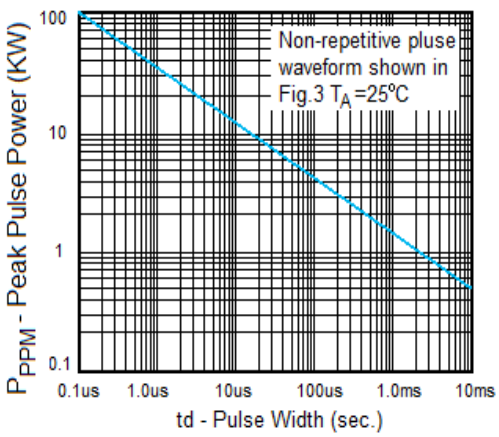


Fig. 1 Peak Pulse Power Rating

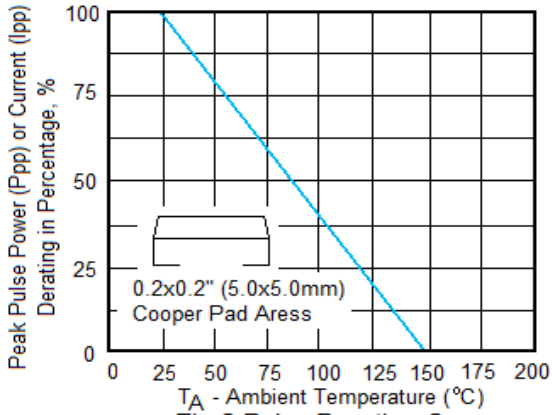


Fig.2 Pulse Derating Cure

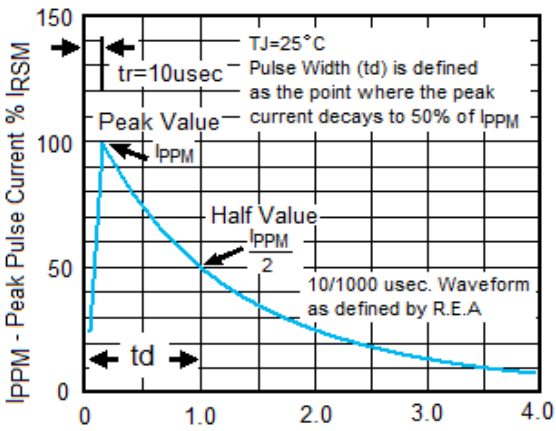


Fig.3 Pulse Waveform

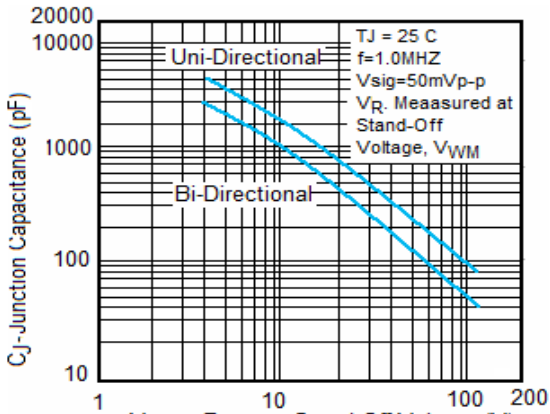


Fig. 4- Typical Junction Capacitance