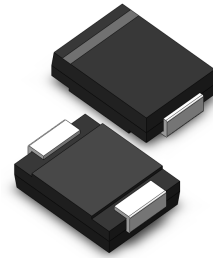


**VOLTAGE RANGE: 5.0 - 440V**  
**POWER: 1500Watts**

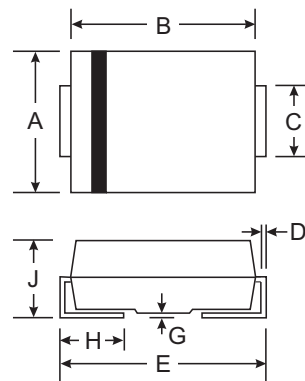
### Features

- Glass Passivated Die Construction
- Uni- and Bi-Directional Versions Available
- Excellent Clamping Capability
- Fast Response Time



### Mechanical Data

- Case: SMC/DO-214AB, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.21 grams (approx.)



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 @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation (Non repetitive current pulse derated above $T_A = 25^\circ\text{C}$ ) (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 @ $T_L = 75^\circ\text{C}$	$PM_{(AV)}$	5.0	W
Instantaneous Forward Voltage @ $I_{PP} = 100\text{A}$ (Notes 1 & 3)	$V_F$	See Note 5	V
Operating Temperature Range	$T_j$	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +175	$^\circ\text{C}$

NOTES:1. Non-repetitive current pulse ,per Fig. 3 and derated above  $T_A=25^\circ\text{C}$  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		Marking		Reverse Stand-Off Voltage	Breakdown Voltage Min. @I <sub>T</sub>	Breakdown Voltage Max. @ I <sub>T</sub>	Test Current	Maximum Clamping Voltage @I <sub>PP</sub>	Peak Pulse Current	Reverse Leakage @V <sub>RWM</sub>
(Uni)	(Bi)	(Uni)	(Bi)	V <sub>RWM</sub> (V)	V <sub>BR MIN</sub> (V)	V <sub>BR MAX</sub> (V)	I <sub>T</sub> (mA)	V <sub>C</sub> (V)	I <sub>PP</sub> (A)	I <sub>R</sub> (uA)
SMC5.0	SMC5.0C	GDD	BDD	5.0	6.40	7.55	10.0	9.6	156.3	800.0
SMC5.0A	SMC5.0CA	GDE	BDE	5.0	6.40	7.25	10.0	9.2	163.0	800.0
SMC6.0	SMC6.0C	GDF	BDF	6.0	6.67	8.45	10.0	11.4	131.6	800.0
SMC6.0A	SMC6.0CA	GDG	BDG	6.0	6.67	7.67	10.0	10.3	145.6	800.0
SMC6.5	SMC6.5C	GDH	BDH	6.5	7.22	9.14	10.0	12.3	122.0	500.0
SMC6.5A	SMC6.5CA	GDK	BDK	6.5	7.22	8.30	10.0	11.2	133.9	500.0
SMC7.0	SMC7.0C	GDL	BDL	7.0	7.78	9.86	10.0	13.3	112.8	200.0
SMC7.0A	SMC7.0CA	GDM	BDM	7.0	7.78	8.95	10.0	12.0	125.0	200.0
SMC7.5	SMC7.5C	GDN	BDN	7.5	8.33	10.67	1.0	14.3	104.9	100.0
SMC7.5A	SMC7.5CA	GDP	BDP	7.5	8.33	9.58	1.0	12.9	116.3	100.0
SMC8.0	SMC8.0C	GDQ	BDQ	8.0	8.89	11.3	1.0	15.0	100.0	50.0
SMC8.0A	SMC8.0CA	GDR	BDR	8.0	8.89	10.23	1.0	13.6	110.3	50.0
SMC8.5	SMC8.5C	GDS	BDS	8.5	9.44	11.92	1.0	15.9	94.3	20.0
SMC8.5A	SMC8.5CA	GDT	BDT	8.5	9.44	10.82	1.0	14.4	104.2	20.0
SMC9.0	SMC9.0C	GDU	BDU	9.0	10.0	12.6	1.0	16.9	88.8	10.0
SMC9.0A	SMC9.0CA	GDV	BDV	9.0	10.0	11.5	1.0	15.4	97.4	10.0
SMC10	SMC10C	GDW	BDW	10	11.1	14.1	1.0	18.8	79.8	5.0
SMC10A	SMC10CA	GDX	BDX	10	11.1	12.8	1.0	17.0	88.2	5.0
SMC11	SMC11C	GDY	BDY	11	12.2	15.4	1.0	20.1	74.6	5.0
SMC11A	SMC11CA	GDZ	BDZ	11	12.2	14.0	1.0	18.2	82.4	5.0
SMC12	SMC12C	GED	BED	12	13.3	16.9	1.0	22.0	68.2	5.0
SMC12A	SMC12CA	GEE	BEE	12	13.3	15.3	1.0	19.9	75.4	5.0
SMC13	SMC13C	GEF	BEF	13	14.4	18.2	1.0	23.8	63.0	5.0
SMC13A	SMC13CA	GEG	BEG	13	14.4	16.5	1.0	21.5	69.8	5.0
SMC14	SMC14C	GEH	BEH	14	15.6	19.8	1.0	25.8	58.1	5.0
SMC14A	SMC14CA	GEK	BEK	14	15.6	17.9	1.0	23.2	64.7	5.0
SMC15	SMC15C	GEL	BEL	15	16.7	21.1	1.0	26.9	55.8	5.0
SMC15A	SMC15CA	GEM	BEM	15	16.7	19.2	1.0	24.4	61.5	5.0
SMC16	SMC16C	GEN	BEN	16	17.8	22.6	1.0	28.8	52.1	5.0
SMC16A	SMC16CA	GEP	BEP	16	17.8	20.5	1.0	26.0	57.7	5.0
SMC17	SMC17C	GEQ	BEQ	17	18.9	23.9	1.0	30.5	49.2	5.0
SMC17A	SMC17CA	GER	BER	17	18.9	21.7	1.0	27.6	54.3	5.0
SMC18	SMC18C	GES	BES	18	20.0	25.3	1.0	32.2	46.6	5.0
SMC18A	SMC18CA	GET	BET	18	20.0	23.3	1.0	29.2	51.4	5.0
SMC20	SMC20C	GEU	BEU	20	22.2	28.1	1.0	35.8	41.9	5.0
SMC20A	SMC20CA	GEV	BEV	20	22.2	25.5	1.0	32.4	46.3	5.0
SMC22	SMC22C	GEW	BEW	22	24.4	30.9	1.0	39.4	38.1	5.0
SMC22A	SMC22CA	GEX	BEX	22	24.4	28.0	1.0	35.5	42.3	5.0
SMC24	SMC24C	GEY	BEY	24	26.7	33.8	1.0	43.0	34.9	5.0
SMC24A	SMC24CA	GEZ	BEZ	24	26.7	30.7	1.0	38.9	38.6	5.0
SMC26	SMC26C	GFD	BFD	26	28.9	36.6	1.0	46.6	32.2	5.0

TYPE		Marking		Reverse Stand-Off Voltage	Breakdown Voltage Min. @I <sub>T</sub>	Breakdown Voltage Max. @ I <sub>T</sub>	Test Current	Maximum Clamping Voltage @I <sub>PP</sub>	Peak Pulse Current	Reverse Leakage @V <sub>RWM</sub>
(Uni)	(Bi)	(Uni)	(Bi)	V <sub>RWM</sub> (V)	V <sub>BR MIN</sub> (V)	V <sub>BR MAX</sub> (V)	I <sub>T</sub> (mA)	V <sub>C</sub> (V)	I <sub>PP</sub> (A)	I <sub>R</sub> ( $\mu$ A)
SMC26A	SMC26CA	GFE	BFE	26	28.9	33.2	1.0	42.1	35.6	5.0
SMC28	SMC28C	GFF	BFF	28	31.1	39.4	1.0	50.0	30.0	5.0
SMC28A	SMC28CA	GFG	BFG	28	31.1	35.8	1.0	45.4	33.0	5.0
SMC30	SMC30C	GFH	BFH	30	33.3	42.2	1.0	53.5	28.0	5.0
SMC30A	SMC30CA	GFK	BFK	30	33.3	38.3	1.0	48.4	31.0	5.0
SMC33	SMC33C	GFL	BFL	33	36.7	46.5	1.0	59.0	25.4	5.0
SMC33A	SMC33CA	GFM	BFM	33	36.7	42.2	1.0	53.3	28.1	5.0
SMC36	SMC36C	GFN	BFN	36	40.0	50.7	1.0	64.3	23.3	5.0
SMC36A	SMC36CA	GFP	BFP	36	40.0	46.0	1.0	58.1	25.8	5.0
SMC40	SMC40C	GFQ	BFQ	40	44.4	56.3	1.0	71.4	21.0	5.0
SMC40A	SMC40CA	GFR	BFR	40	44.4	51.1	1.0	64.5	23.3	5.0
SMC43	SMC43C	GFS	BFS	43	47.8	60.5	1.0	76.7	19.6	5.0
SMC43A	SMC43CA	GFT	BFT	43	47.8	54.9	1.0	69.4	21.6	5.0
SMC45	SMC45C	GFU	BFU	45	50.0	63.3	1.0	80.3	18.7	5.0
SMC45A	SMC45CA	GFV	BFV	45	50.0	57.5	1.0	72.7	20.6	5.0
SMC48	SMC48C	GEH	BEH	48	53.3	67.5	1.0	85.5	17.5	5.0
SMC48A	SMC48CA	GEK	BEK	48	53.3	61.3	1.0	77.4	19.4	5.0
SMC51	SMC51C	GEL	BEL	51	56.7	71.8	1.0	91.1	16.5	5.0
SMC51A	SMC51CA	GEM	BEM	51	56.7	65.2	1.0	82.4	18.2	5.0
SMC54	SMC54C	GFW	BFW	54	60.0	76.0	1.0	96.3	15.6	5.0
SMC54A	SMC54CA	GFY	BFY	54	60.0	69.0	1.0	87.1	17.2	5.0
SMC58	SMC58C	GFY	BFY	58	64.4	81.6	1.0	103	14.6	5.0
SMC58A	SMC58CA	GFZ	BFZ	58	64.4	74.1	1.0	93.6	16.0	5.0
SMC60	SMC60C	GGD	BGD	60	66.7	84.5	1.0	107	14.0	5.0
SMC60A	SMC60CA	GGE	BGE	60	66.7	76.7	1.0	96.8	15.5	5.0
SMC64	SMC64C	GGF	BGF	64	71.1	90.1	1.0	114	13.2	5.0
SMC64A	SMC64CA	GGG	BGG	64	71.1	81.8	1.0	103	14.6	5.0
SMC70	SMC70C	GGH	BGH	70	77.8	98.6	1.0	125	12.0	5.0
SMC70A	SMC70CA	GGK	BGK	70	77.8	89.5	1.0	113	13.3	5.0
SMC75	SMC75C	GGL	BGL	75	83.0	105.7	1.0	134	11.2	5.0
SMC75A	SMC75CA	GGM	BGM	75	83.0	95.8	1.0	121	12.4	5.0
SMC78	SMC78C	GGN	BGN	78	86.0	109.8	1.0	139	10.8	5.0
SMC78A	SMC78CA	GGP	BGP	78	86.0	99.7	1.0	126	11.9	5.0
SMC85	SMC85C	GGQ	BGQ	85	94.0	119.2	1.0	151	9.9	5.0
SMC85A	SMC85CA	GGR	BGR	85	94.0	108.2	1.0	137	10.9	5.0
SMC90	SMC90C	GGS	BGS	90	100	126.5	1.0	160	9.4	5.0
SMC90A	SMC90CA	GGT	BGT	90	100	115.5	1.0	146	10.3	5.0
SMC100	SMC100C	GGU	BGU	100	111	141.0	1.0	179	8.4	5.0
SMC100A	SMC100CA	GGV	BGV	100	111	128.0	1.0	162	9.3	5.0
SMC110	SMC110C	GGW	BGW	10	122	154.5	1.0	196	7.7	5.0
SMC110A	SMC110CA	GGX	BGX	110	122	140.5	1.0	177	8.5	5.0
SMC120	SMC120C	GGY	BGY	120	133	169.0	1.0	214	7.0	5.0
SMC120A	SMC120CA	GGZ	BGZ	120	133	153.0	1.0	193	7.8	5.0



TYPE		Marking		Reverse Stand-Off Voltage	Breakdown Voltage Min. @I <sub>T</sub>	Breakdown Voltage Max. @ I <sub>T</sub>	Test Current	Maximum Clamping Voltage @I <sub>PP</sub>	Peak Pulse Current	Reverse Leakage @V <sub>RWM</sub>
(Uni)	(Bi)	(Uni)	(Bi)	V <sub>RWM</sub> (V)	V <sub>BR MIN</sub> (V)	V <sub>BR MAX</sub> (V)	I <sub>T</sub> (mA)	V <sub>C</sub> (V)	I <sub>PP</sub> (A)	I <sub>R</sub> (uA)
SMC130	SMC130C	GHD	BHD	130	144	182.5	1.0	231	6.5	5.0
SMC130A	SMC130CA	GHE	BHE	130	144	165.5	1.0	209	7.2	5.0
SMC150	SMC150C	GHF	BHF	150	167	211.5	1.0	268	5.6	5.0
SMC150A	SMC150CA	GHG	BHG	150	167	192.5	1.0	243	6.2	5.0
SMC160	SMC160C	GHH	BHH	160	178	226.0	1.0	287	5.2	5.0
SMC160A	SMC160CA	GHK	BHK	160	178	205.0	1.0	259	5.8	5.0
SMC170	SMC170C	GHL	BHL	170	189	239.5	1.0	304	4.9	5.0
SMC170A	SMC170CA	GHM	BHM	170	189	217.5	1.0	275	5.5	5.0
SMC180	SMC180C	GHN	BHN	180	200	253.8	1.0	321	4.7	5.0
SMC180A	SMC180CA	GHP	BHP	180	200	230.4	1.0	290	5.2	5.0
SMC190	SMC190C	GHQ	BHQ	190	211	267.9	1.0	339	4.4	5.0
SMC190A	SMC190CA	GHR	BHR	190	211	243.2	1.0	306	4.9	5.0
SMC200	SMC200C	GHW	BHW	200	222	282.0	1.0	356	4.2	5.0
SMC200A	SMC200CA	GHX	BHX	200	222	256.0	1.0	322	4.7	5.0
SMC210	SMC210C	GHY	BHY	210	233	296.1	1.0	375	4.0	5.0
SMC210A	SMC210CA	GHZ	BHZ	210	233	268.8	1.0	339	4.4	5.0
SMC220	SMC220C	GJD	BJD	220	244	310.2	1.0	392	3.8	5.0
SMC220A	SMC220CA	GJE	BJE	220	244	281.6	1.0	355	4.2	5.0
SMC250	SMC250C	GJF	BJF	250	278	342.5	1.0	447	3.4	5.0
SMC250A	SMC250CA	GJG	BJG	250	278	309.0	1.0	403	3.7	5.0
SMC300	SMC300C	GJH	BJH	300	333	411.0	1.0	535	2.8	5.0
SMC300A	SMC300CA	GJK	BJK	300	333	371.0	1.0	484	3.1	5.0
SMC350	SMC350C	GJL	BJL	350	389	479.5	1.0	624	2.4	5.0
SMC350A	SMC350CA	GJM	BJM	350	389	432.0	1.0	565	2.7	5.0
SMC400	SMC400C	GJN	BJN	400	444	548.0	1.0	687	2.2	5.0
SMC400A	SMC400CA	GJP	BJP	400	444	494.0	1.0	645	2.3	5.0
SMC440	SMC440C	GJQ	BJQ	440	489	602.8	1.0	786	1.9	5.0
SMC440A	SMC440CA	GJR	BJR	440	489	543.0	1.0	710	2.1	5.0

## Ratings and Characteristic Curves $T_A=25^\circ\text{C}$ unless otherwise noted

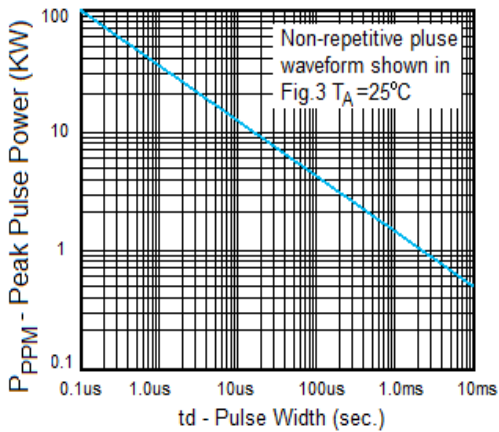


Fig. 1 Peak Pulse Power Rating

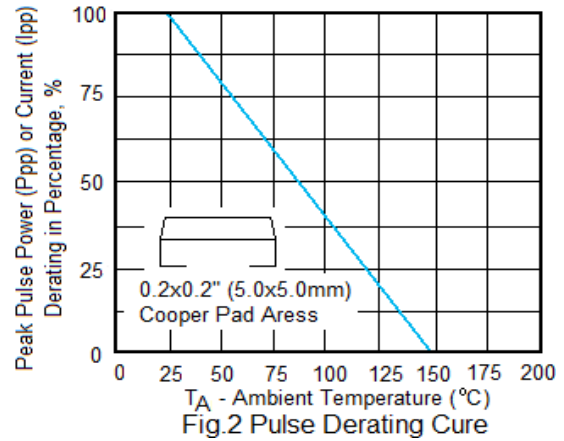


Fig.2 Pulse Derating Curve

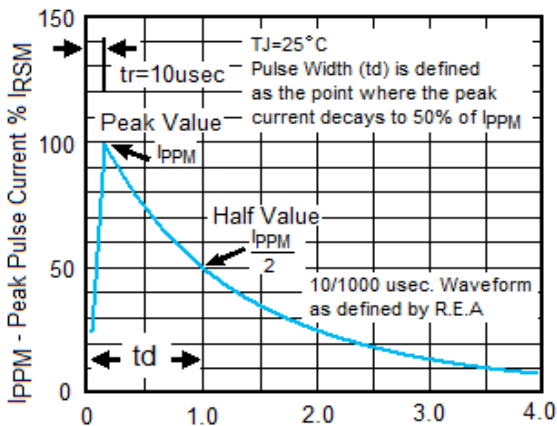


Fig.3 Pulse Waveform

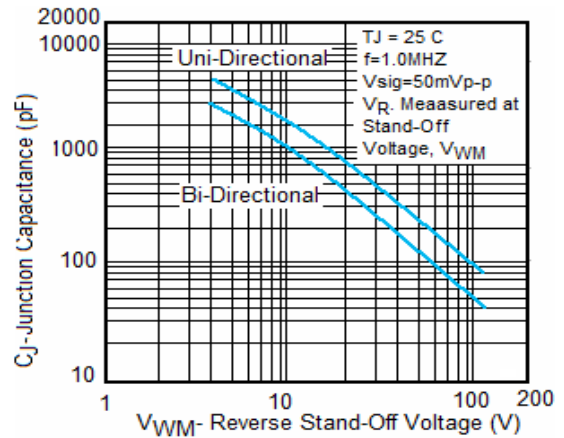


Fig. 4- Typical Junction Capacitance