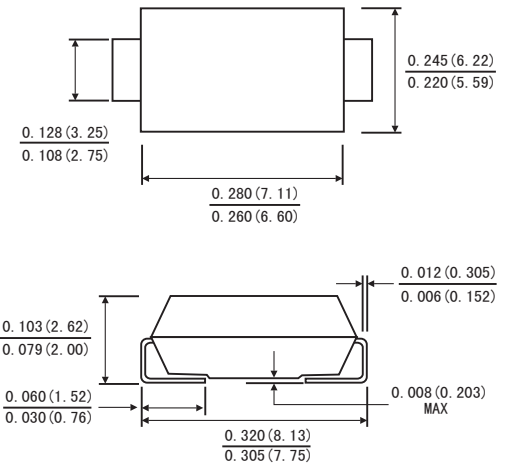


FEATURES

- 5000 Watts Pulse capability
- Excellent clamping capability
- Low incremental surge resistance
- Fast response time
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU

SMC(DO-214AB)



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: JEDEC SMC(DO-214AB) molded plastic body
- Terminals: Solder Plated
- Polarity: By cathode band denotes uni-directional device, none cathode band denotes bi-directional device.

DEVICES FOR BIDIRECTIONAL APPLICATIONS

1. For bi-directional use C suffix for Types .
2. Electrical characteristics apply in both directions.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating at 25°C ambient temperature unless otherwise specified)

	Symbols	Value	Units
Peak Pulse Power Dissipation at on 10/1000µs Waveform (Note 1.2)	P _{PK}	5000	Watts
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method) (Note 2)	I _{FSM}	200	Amps
Operating junction and storage temperature range	T _J , T _{STG}	-55 to 150	°C

- Note: 1. Non repetitive current pulse and derated above T_A=25°C
2. Measured on 8.3ms single half sine-wave or equivalent square wave, duty cycle=4 pulses per minute maximum

RATINGS AND CHARACTERISTIC CURVES (5.0SMC SERIES)

Part number		Reverse Standoff Voltage VRWM (Volts)	Breakdown Voltage VBR (Volts)		Test Current (mA)	Maximum Clamping Voltage VC@Ipp (Volts)	Maximum Peak Pulse Current Ipp(A)	Maximum Reverse Leakage IR@VRWM (μA)
UNI	BI		MIN	MAX				
5.0SMC6.8A	5.0SMC6.8CA	5.8	6.45	7.14	10	10.5	476	800
5.0SMC7.5A	5.0SMC7.5CA	6.4	7.13	7.88	10	11.3	442	500
5.0SMC8.2A	5.0SMC8.2CA	7.02	7.79	8.61	10	12.1	413	150
5.0SMC9.1A	5.0SMC9.1CA	7.78	8.6	9.55	1	13.4	373	50
5.0SMC10A	5.0SMC10CA	8.55	9.5	10.5	1	14.5	345	10
5.0SMC11A	5.0SMC11CA	9.87	10.5	11.6	1	15.6	321	3
5.0SMC12A	5.0SMC12CA	10.71	11.4	12.6	1	16.7	299	3
5.0SMC13A	5.0SMC13CA	11.66	12.4	13.7	1	18.2	275	3
5.0SMC15A	5.0SMC15CA	13.44	14.3	15.8	1	21.2	236	3
5.0SMC16A	5.0SMC16CA	14.28	15.2	16.8	1	22.5	222	3
5.0SMC18A	5.0SMC18CA	16.07	17.1	18.9	1	25.2	198	3
5.0SMC20A	5.0SMC20CA	17.96	19	21	1	27.7	181	3
5.0SMC22A	5.0SMC22CA	19.74	20.9	23.1	1	30.6	163	3
5.0SMC24A	5.0SMC24CA	21.53	22.8	25.2	1	33.2	151	3
5.0SMC27A	5.0SMC27CA	24.26	25.7	28.4	1	37.5	133	3
5.0SMC30A	5.0SMC30CA	26.88	28.5	31.5	1	41.4	121	3
5.0SMC33A	5.0SMC33CA	29.61	31.4	34.7	1	45.7	109	3
5.0SMC36A	5.0SMC36CA	32.34	34.2	37.8	1	49.9	100	3
5.0SMC39A	5.0SMC39CA	34.97	37.1	41	1	53.9	93	3
5.0SMC43A	5.0SMC43CA	38.64	40.9	45.2	1	59.3	84	3
5.0SMC47A	5.0SMC47CA	42.21	44.7	49.4	1	64.8	77	3
5.0SMC51A	5.0SMC51CA	45.78	48.5	53.6	1	70.1	71	3
5.0SMC56A	5.0SMC56CA	50.19	53.2	58.8	1	77	65	3
5.0SMC62A	5.0SMC62CA	55.65	58.9	65.1	1	85	59	3
5.0SMC68A	5.0SMC68CA	61.01	64.6	71.4	1	92	54	3
5.0SMC75A	5.0SMC75CA	67.31	71.3	78.8	1	103	49	3
5.0SMC82A	5.0SMC82CA	73.61	77.9	86.1	1	113	44	3
5.0SMC91A	5.0SMC91CA	81.69	86.5	95.5	1	125	40	3
5.0SMC100A	5.0SMC100CA	89.78	95	105	1	137	36	3
5.0SMC110A	5.0SMC110CA	98.7	105	116	1	152	33	3
5.0SMC120A	5.0SMC120CA	107.1	114	126	1	165	30	3
5.0SMC130A	5.0SMC130CA	116.55	124	137	1	179	28	3

RATINGS AND CHARACTERISTIC CURVES (5.0SMC SERIES)

5.0SMC150A	5.0SMC150CA	134.4	143	158	1	207	24	3
5.0SMC160A	5.0SMC160CA	142.8	152	168	1	219	23	3
5.0SMC170A	5.0SMC170CA	152.25	162	179	1	234	21	3
5.0SMC180A	5.0SMC180CA	161.7	171	189	1	246	20	3
5.0SMC200A	5.0SMC200CA	179.55	190	210	1	274	18	3
5.0SMC220A	5.0SMC220CA	194.25	209	231	1	328	15	3
5.0SMC250A	5.0SMC250CA	224.7	237	263	1	344	15	3
5.0SMC300A	5.0SMC300CA	268.8	285	315	1	414	12	3
5.0SMC350A	5.0SMC350CA	315	332	368	1	482	10	3
5.0SMC400A	5.0SMC400CA	359.1	380	420	1	548	9	3
5.0SMC440A	5.0SMC440CA	394.8	418	462	1	602	8	3

For Bi-directional type having VRWM of 10 Volts and less, the IR limit is double

1. A transient suppressor is normally selected according to the working peak reverse voltage (VRWM), which should be equal to or greater than the DC or continuous peak operating voltage level.
2. VBR measured at pulse test current IT at an ambient temperature of 25°C.
3. Surge current waveform per Figure 2 and derate per Figure 3

RATINGS AND CHARACTERISTIC CURVES (5.0SMC SERIES)

FIG. 1-PEAK PULSE POWER CURVE

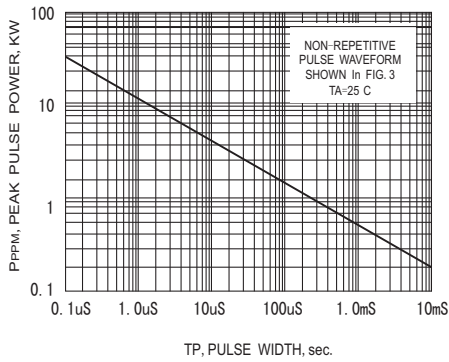


FIG. 2-PULSE DERATING CURVE

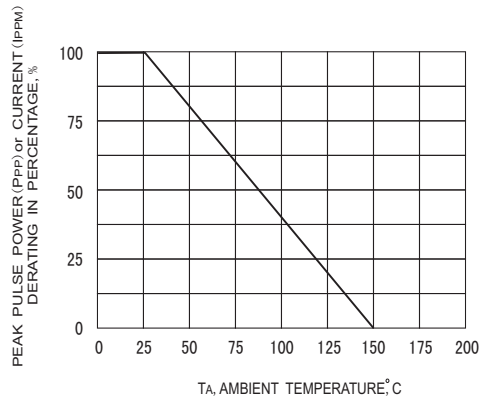


FIG. 3-PULSE WAVEFORM

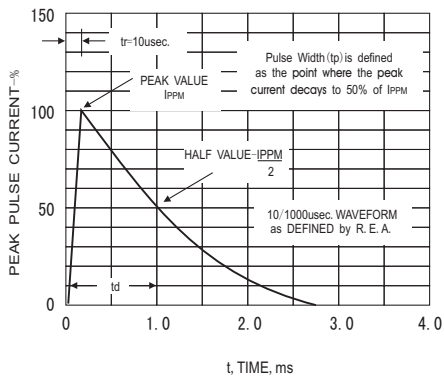


FIG. 4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

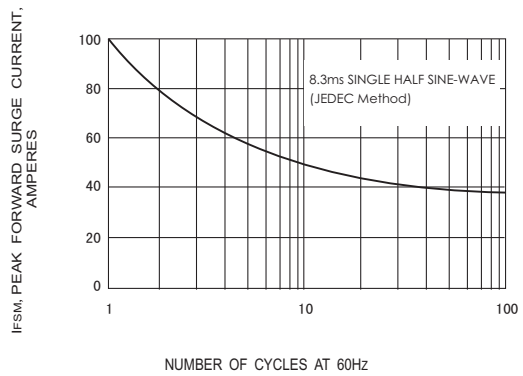


FIG. 5-Steady State Power Derating Curve

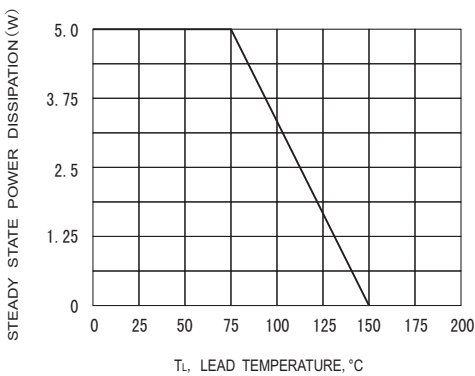


FIG. 6-TYPICAL JUNCTION CAPACITANCE

