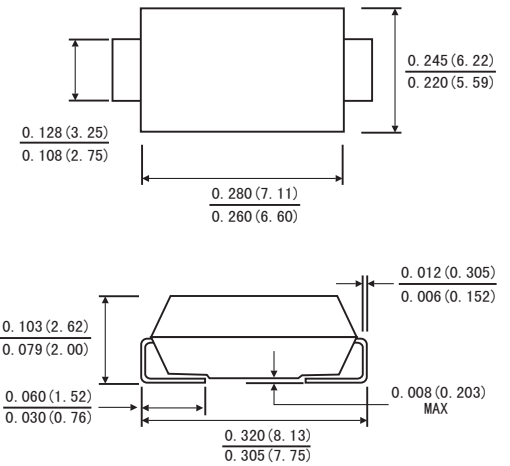


## FEATURES

- 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 <sub>PK</sub>	5000	Watts
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method) (Note 2)	I <sub>FSM</sub>	300	Amps
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to 150	°C

- Note: 1. Non repetitive current pulse and derated above T<sub>A</sub>=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 (5.0SMCJ 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				
5.0SMCJ11A	5.0SMCJ11CA	11.0	12.20	13.50	10.0	18.2	274.7	500
5.0SMCJ12A	5.0SMCJ12CA	12.0	13.30	14.70	10.0	19.9	251.3	500
5.0SMCJ13A	5.0SMCJ13CA	13.0	14.40	15.90	10.0	21.5	232.6	200
5.0SMCJ14A	5.0SMCJ14CA	14.0	15.60	17.20	10.0	23.2	215.5	200
5.0SMCJ15A	5.0SMCJ15CA	15.0	16.70	18.50	1	24.4	204.9	100
5.0SMCJ16A	5.0SMCJ16CA	16.0	17.80	19.70	1	26.0	192.3	50
5.0SMCJ17A	5.0SMCJ17CA	17.0	18.90	20.90	1	27.6	181.2	20
5.0SMCJ18A	5.0SMCJ18CA	18.0	20.00	22.10	1	29.2	171.2	10
5.0SMCJ19A	5.0SMCJ19CA	19.0	21.10	23.30	1	30.8	162.4	10
5.0SMCJ20A	5.0SMCJ20CA	20.0	22.20	24.50	1	32.4	154.3	5
5.0SMCJ22A	5.0SMCJ22CA	22.0	24.40	26.90	1	35.5	140.8	5
5.0SMCJ24A	5.0SMCJ24CA	24.0	26.70	29.50	1	38.9	128.5	2
5.0SMCJ26A	5.0SMCJ26CA	26.0	28.90	31.90	1	42.1	118.8	2
5.0SMCJ28A	5.0SMCJ28CA	28.0	31.10	34.40	1	45.4	110.1	2
5.0SMCJ30A	5.0SMCJ30CA	30.0	33.30	36.80	1	48.4	103.3	2
5.0SMCJ33A	5.0SMCJ33CA	33.0	36.70	40.60	1	53.3	93.8	2
5.0SMCJ36A	5.0SMCJ36CA	36.0	40.00	44.20	1	58.1	86.1	2
5.0SMCJ40A	5.0SMCJ40CA	40.0	44.40	49.10	1	64.5	77.5	2
5.0SMCJ43A	5.0SMCJ43CA	43.0	47.80	52.80	1	69.4	72.0	2
5.0SMCJ45A	5.0SMCJ45CA	45.0	50.00	55.30	1	72.7	68.8	2
5.0SMCJ48A	5.0SMCJ48CA	48.0	53.30	58.90	1	77.4	64.6	2
5.0SMCJ51A	5.0SMCJ51CA	51.0	56.70	62.70	1	82.4	60.7	2
5.0SMCJ54A	5.0SMCJ54CA	54.0	60.00	66.30	1	87.1	57.4	2
5.0SMCJ58A	5.0SMCJ58CA	58.0	64.40	71.20	1	93.6	53.4	2
5.0SMCJ60A	5.0SMCJ60CA	60.0	66.70	73.70	1	96.8	51.7	2
5.0SMCJ64A	5.0SMCJ64CA	64.0	71.10	78.60	1	103.0	48.5	2
5.0SMCJ70A	5.0SMCJ70CA	70.0	77.80	86.00	1	113.0	44.2	2
5.0SMCJ75A	5.0SMCJ75CA	75.0	83.30	92.10	1	121.0	41.3	2
5.0SMCJ78A	5.0SMCJ78CA	78.0	86.70	95.80	1	126.0	39.7	2
5.0SMCJ80A	5.0SMCJ80CA	80.0	88.80	97.60	1	129.6	38.6	2
5.0SMCJ85A	5.0SMCJ85CA	85.0	94.40	104.0	1	137.0	36.5	2
5.0SMCJ90A	5.0SMCJ90CA	90.0	100.0	111.0	1	146.0	34.2	2

## RATINGS AND CHARACTERISTIC CURVES (5.0SMCJ SERIES)

5.0SMCJ100A	5.0SMCJ100CA	100.0	110.0	123.0	1	162.0	30.9	2
5.0SMCJ110A	5.0SMCJ110CA	110.0	122.0	135.0	1	177.0	28.2	2
5.0SMCJ120A	5.0SMCJ120CA	120.0	133.0	147.0	1	193.0	25.9	2
5.0SMCJ130A	5.0SMCJ130CA	130.0	144.0	159.0	1	209.0	23.9	2
5.0SMCJ140A	5.0SMCJ140CA	140.0	155.0	171.0	1	226.8	22.0	2
5.0SMCJ150A	5.0SMCJ150CA	150.0	167.0	185.0	1	243.0	20.6	2
5.0SMCJ160A	5.0SMCJ160CA	160.0	178.0	197.0	1	259.0	19.3	2
5.0SMCJ170A	5.0SMCJ170CA	170.0	189.0	209.0	1	275.0	18.2	2
5.0SMCJ180A	5.0SMCJ180CA	180.0	200.0	220.0	1	291.6	17.1	2
5.0SMCJ190A	5.0SMCJ190CA	190.0	211.0	232.0	1	307.8	16.2	2
5.0SMCJ200A	5.0SMCJ200CA	200.0	224.0	247.0	1	324.0	15.4	2
5.0SMCJ220A	5.0SMCJ220CA	220.0	246.0	272.0	1	356.0	14.0	2
5.0SMCJ250A	5.0SMCJ250CA	250.0	279.0	309.0	1	405.0	12.3	2
5.0SMCJ300A	5.0SMCJ300CA	300.0	335.0	371.1	1	486.0	10.3	2
5.0SMCJ350A	5.0SMCJ350CA	350.0	391.0	432.0	1	567.0	8.8	2
5.0SMCJ400A	5.0SMCJ400CA	400.0	447.0	494.0	1	648.0	7.7	2
5.0SMCJ440A	5.0SMCJ440CA	440.0	492.0	543.0	1	713.0	7.0	2

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 (5.0SMCJ SERIES)

FIG. 1-PEAK PULSE POWER CURVE

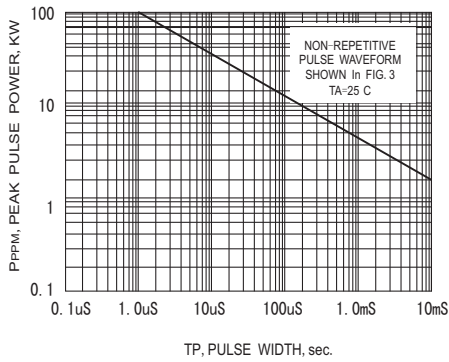


FIG. 2-PULSE DERATING CURVE

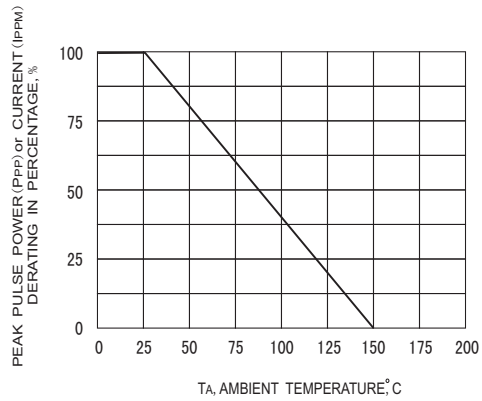


FIG. 3-PULSE WAVEFORM

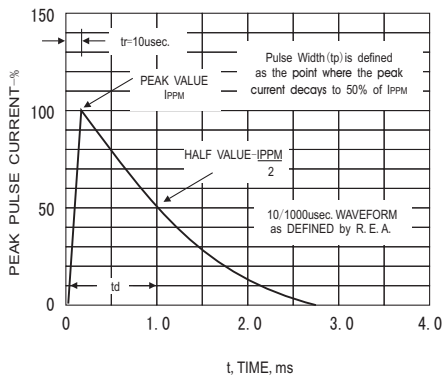


FIG. 4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

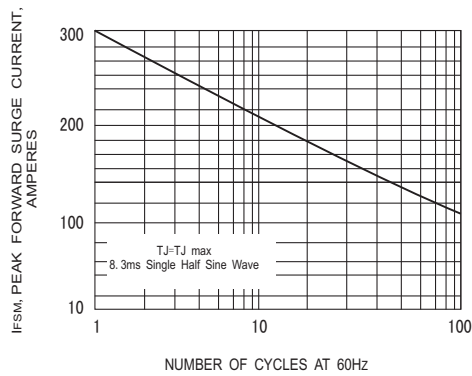


FIG. 5-Steady State Power Derating Curve

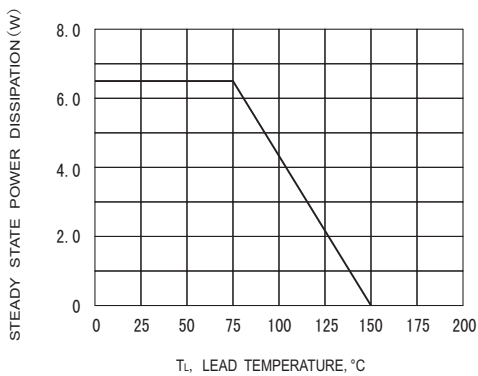


FIG. 6-TYPICAL JUNCTION CAPACITANCE

