

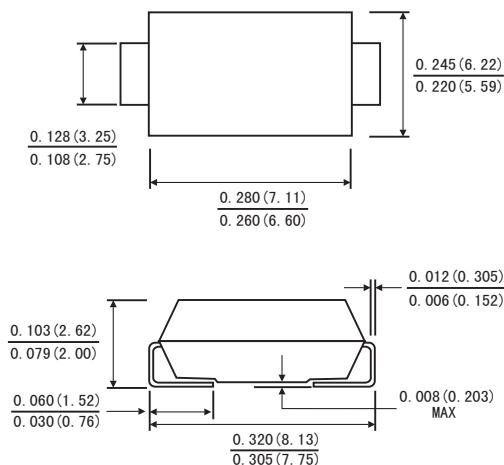
FEATURES

- 3000 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

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.

SMC(DO-214AB)



Dimensions in inches and (millimeters)

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}	3000	Watts
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method) (Note 2)	I _{FSM}	300	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(3.0SMCJ 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				
3.0SMCJ5.0A	3.0SMCJ5.0CA	5	6.40	7.00	10	9.2	326.09	500
3.0SMCJ6.0A	3.0SMCJ6.0CA	6	6.67	7.37	10	10.3	291.26	500
3.0SMCJ6.5A	3.0SMCJ6.5CA	6.5	7.22	7.98	10	11.2	267.86	300
3.0SMCJ7.0A	3.0SMCJ7.0CA	7	7.78	8.60	10	12.0	250.00	200
3.0SMCJ7.5A	3.0SMCJ7.5CA	7.5	8.33	9.21	1	12.9	232.56	100
3.0SMCJ8.0A	3.0SMCJ8.0CA	8	8.89	9.83	1	13.6	220.59	50
3.0SMCJ8.5A	3.0SMCJ8.5CA	8.5	9.44	10.40	1	14.4	208.33	30
3.0SMCJ9.0A	3.0SMCJ9.0CA	9	10.00	11.10	1	15.4	194.81	30
3.0SMCJ10A	3.0SMCJ10CA	10	11.10	12.30	1	17.0	176.47	5
3.0SMCJ11A	3.0SMCJ11CA	11	12.20	13.50	1	18.2	164.84	5
3.0SMCJ12A	3.0SMCJ12CA	12	13.30	14.70	1	19.9	150.75	5
3.0SMCJ13A	3.0SMCJ13CA	13	14.40	15.90	1	21.5	139.53	5
3.0SMCJ14A	3.0SMCJ14CA	14	15.60	17.20	1	23.2	129.31	5
3.0SMCJ15A	3.0SMCJ15CA	15	16.70	18.50	1	24.4	122.95	5
3.0SMCJ16A	3.0SMCJ16CA	16	17.80	19.70	1	26.0	115.38	5
3.0SMCJ17A	3.0SMCJ17CA	17	18.90	20.90	1	27.6	108.70	5
3.0SMCJ18A	3.0SMCJ18CA	18	20.00	22.10	1	29.2	102.74	5
3.0SMCJ19A	3.0SMCJ19CA	19	21.10	23.30	1	30.8	97.47	5
3.0SMCJ20A	3.0SMCJ20CA	20	22.20	24.50	1	32.4	92.59	5
3.0SMCJ22A	3.0SMCJ22CA	22	24.40	26.90	1	35.5	84.51	5
3.0SMCJ24A	3.0SMCJ24CA	24	26.70	29.50	1	38.9	77.12	5
3.0SMCJ26A	3.0SMCJ26CA	26	28.90	31.90	1	42.1	71.26	5
3.0SMCJ28A	3.0SMCJ28CA	28	31.10	34.40	1	45.4	66.08	5
3.0SMCJ30A	3.0SMCJ30CA	30	33.30	36.80	1	48.4	61.98	5
3.0SMCJ33A	3.0SMCJ33CA	33	36.70	40.60	1	53.3	56.29	5
3.0SMCJ36A	3.0SMCJ36CA	36	40.00	44.20	1	58.1	51.64	5
3.0SMCJ40A	3.0SMCJ40CA	40	44.40	49.10	1	64.5	46.51	5
3.0SMCJ43A	3.0SMCJ43CA	43	47.80	52.80	1	69.4	43.23	5
3.0SMCJ45A	3.0SMCJ45CA	45	50.00	55.30	1	72.7	41.27	5
3.0SMCJ48A	3.0SMCJ48CA	48	53.30	58.90	1	77.4	38.76	5
3.0SMCJ51A	3.0SMCJ51CA	51	56.70	62.70	1	82.4	36.41	5
3.0SMCJ54A	3.0SMCJ54CA	54	60.00	66.30	1	87.1	34.44	5
3.0SMCJ58A	3.0SMCJ58CA	58	64.40	71.20	1	93.6	32.05	5
3.0SMCJ60A	3.0SMCJ60CA	60	66.70	73.70	1	96.8	30.99	5

RATINGS AND CHARACTERISTIC CURVES (3.0SMCJ SERIES)

3.0SMCJ64A	3.0SMCJ64CA	64	71.10	78.60	1	103.0	30.99	5
3.0SMCJ70A	3.0SMCJ70CA	70	77.80	86.00	1	113.0	29.13	5
3.0SMCJ75A	3.0SMCJ75CA	75	83.30	92.10	1	121.0	26.55	5
3.0SMCJ78A	3.0SMCJ78CA	78	86.70	95.80	1	126.0	24.79	5
3.0SMCJ80A	3.0SMCJ80CA	80	88.8	97.60	1	126.0	23.15	5
3.0SMCJ85A	3.0SMCJ85CA	85	94.40	104.00	1	137.0	21.90	5
3.0SMCJ90A	3.0SMCJ90CA	90	100.0	111.00	1	146.0	20.55	5
3.0SMCJ100A	3.0SMCJ100CA	100	111.0	123.00	1	162.0	18.52	5
3.0SMCJ110A	3.0SMCJ110CA	110	122.0	135.00	1	177.0	16.95	5
3.0SMCJ120A	3.0SMCJ120CA	120	133.0	147.00	1	193.0	15.54	5
3.0SMCJ130A	3.0SMCJ130CA	130	144.0	159.00	1	209.0	14.35	5
3.0SMCJ140A	3.0SMCJ140CA	140	155.0	171.00	1	226.8	13.23	5
3.0SMCJ150A	3.0SMCJ150CA	150	167.0	185.00	1	243.0	12.35	5
3.0SMCJ160A	3.0SMCJ160CA	160	178.0	197.00	1	259.0	11.58	5
3.0SMCJ170A	3.0SMCJ170CA	170	189.0	209.00	1	275.0	10.91	5
3.0SMCJ180A	3.0SMCJ180CA	180	201.0	222.00	1	292.0	10.29	5
3.0SMCJ190A	3.0SMCJ190CA	190	211.0	233.00	1	306.0	9.75	5
3.0SMCJ200A	3.0SMCJ200CA	200	224.0	247.00	1	324.0	9.26	5
3.0SMCJ220A	3.0SMCJ220CA	220	246.0	272.00	1	356.0	8.43	5
3.0SMCJ250A	3.0SMCJ250CA	250	279.0	309.00	1	405.0	7.41	5
3.0SMCJ300A	3.0SMCJ300CA	300	335.0	371.00	1	486.0	6.17	5
3.0SMCJ350A	3.0SMCJ350CA	350	391.0	432.00	1	567.0	5.29	5
3.0SMCJ400A	3.0SMCJ400CA	400	447.0	494.00	1	648.0	4.63	5
3.0SMCJ440A	3.0SMCJ440CA	440	492.0	543.00	1	713.0	4.21	5

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 (3.0SMCJ SERIES)

FIG. 1-PEAK PULSE POWER CURVE

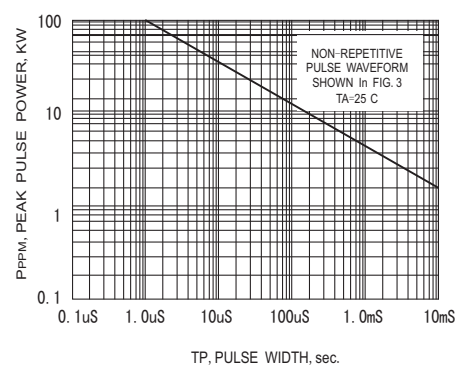


FIG. 2-PULSE DERATING CURVE

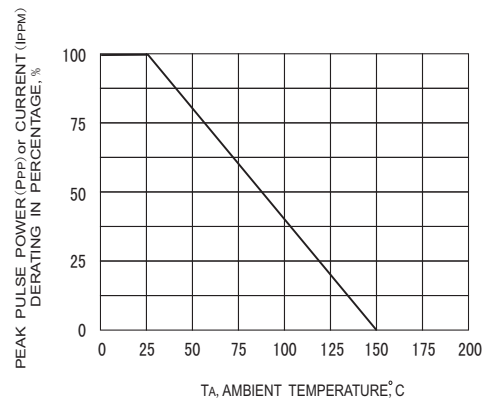


FIG. 3-PULSE WAVEFORM

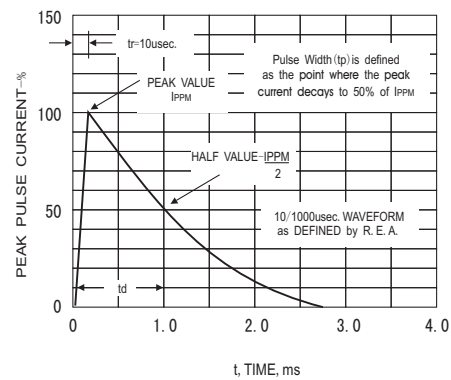


FIG. 4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

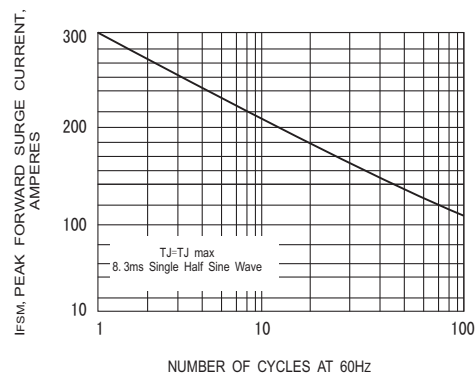


FIG. 5-Steady State Power Derating Curve

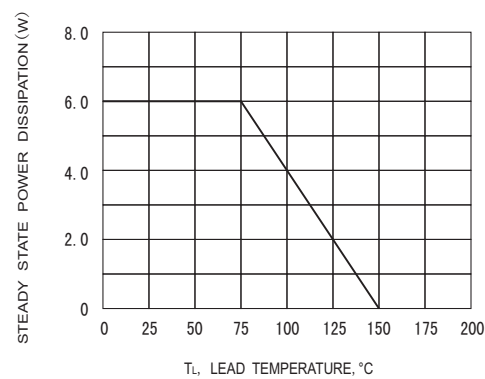


FIG. 6-TYPICAL JUNCTION CAPACITANCE

