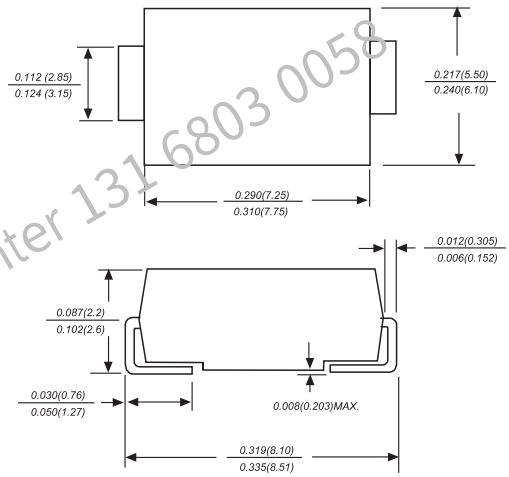
3000W 3.0SMCJ Series

Features

- ✧ 3000W peak pulse power capability with a 10/1000μs waveform
- ✧ Excellent clamping capability
- ✧ Low inductance
- ✧ High temperature soldering : 250 °C/10 seconds at terminals.
- ✧ Built-in stran relief

SMC /DO-214AB



Dimensions in inches and (millimeters)

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Mechanical Data

- ✧ Case : DO-214AB Molded plastic
- ✧ Lead : Lead Formed for Surface Mount
- ✧ Mounting position : Any
- ✧ Weight : 0.21 gram

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Rating	Symbol	Value	Unit
Peak Pulse Power Dissipation on 10/1000 μs waveform (1) (2)	P_{PPM}	3000	W
Peak Pulse Current on 10/1000 s waveform (1)	I_{PPM}	See Next Table	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (2)(3)	I_{FSM}	200	A
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 55 to + 150	°C

Notes :

(1) Non-repetitive Current pulse, per Fig. 3 and derated above Ta = 25 °C per Fig. 1

(2) Mounted on 5.0 mm2 (0.013 thick) land areas.

(3) Measured on 8.3 ms , single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minutes maximum.

3000W 3.0SMCJ Series

ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

3.0SMCJ PART NUMBER		V_{RWM}	V(BR)		I(T)	Ir@V_{RWM}	I_{ppm}	Vc@I_{ppm}
BI-POLAR	UNI-POLAR	V	Min.V	Max.V	mA	Max.uA	Max.A	Max.V
3.0SMCJ5.0CA	3.0SMCJ5.0A	5.0	6.4	7.00	10	800	326.1	9.2
3.0SMCJ6.0CA	3.0SMCJ6.0A	6.0	6.67	7.37	10	800	291.3	10.3
3.0SMCJ6.5CA	3.0SMCJ6.5A	6.5	7.22	7.98	10	500	267.9	11.2
3.0SMCJ7.0CA	3.0SMCJ7.0A	7.0	7.78	8.60	10	200	250.0	12.0
3.0SMCJ7.5CA	3.0SMCJ7.5A	7.5	8.33	9.21	1	100	232.6	12.9
3.0SMCJ8.0CA	3.0SMCJ8.0A	8.0	8.89	10.12	1	50	220.6	13.6
3.0SMCJ8.5CA	3.0SMCJ8.5A	8.5	9.44	10.40	1	20	208.4	14.4
3.0SMCJ9.0CA	3.0SMCJ9.0A	9.0	10.00	11.10	1	10	194.8	15.4
3.0SMCJ10CA	3.0SMCJ10A	10.0	11.10	12.30	1	5	176.5	17.0
3.0SMCJ11CA	3.0SMCJ11A	11.0	12.20	14.80	1	2	164.8	18.2
3.0SMCJ12CA	3.0SMCJ12A	12.0	13.30	14.70	1	2	150.8	19.9
3.0SMCJ13CA	3.0SMCJ13A	13.0	14.40	15.90	1	2	139.4	21.5
3.0SMCJ14CA	3.0SMCJ14A	14.0	15.60	17.20	1	2	129.4	23.2
3.0SMCJ15CA	3.0SMCJ15A	15.0	16.70	18.50	1	2	115.4	24.4
3.0SMCJ16CA	3.0SMCJ16A	16.0	17.80	19.70	1	2	115.4	26.0
3.0SMCJ17CA	3.0SMCJ17A	17.0	18.90	20.90	1	2	108.7	27.6
3.0SMCJ18CA	3.0SMCJ18A	18.0	20.00	22.10	1	2	102.7	29.2
3.0SMCJ20CA	3.0SMCJ20A	20.0	22.20	24.50	1	2	92.6	32.4
3.0SMCJ22CA	3.0SMCJ22A	22.0	24.40	26.90	1	2	84.5	35.5
3.0SMCJ24CA	3.0SMCJ24A	24.0	26.70	29.50	1	2	77.2	38.9
3.0SMCJ26CA	3.0SMCJ26A	26.0	28.90	31.90	1	2	71.2	42.1
3.0SMCJ28CA	3.0SMCJ28A	28.0	31.10	34.40	1	2	66.2	45.4
3.0SMCJ30CA	3.0SMCJ30A	30.0	33.30	36.80	1	2	62.0	48.4
3.0SMCJ33CA	3.0SMCJ33A	33.0	36.70	40.60	1	2	56.3	53.3
3.0SMCJ36CA	3.0SMCJ36A	36.0	40.00	44.20	1	2	51.6	58.1
3.0SMCJ40CA	3.0SMCJ40A	40.0	44.40	49.10	1	2	46.4	64.5
3.0SMCJ43CA	3.0SMCJ43A	43.0	47.80	52.80	1	2	69.4	43.2
3.0SMCJ45CA	3.0SMCJ45A	45.0	50.00	55.30	1	2	41.2	72.7
3.0SMCJ48CA	3.0SMCJ48A	48.0	53.30	58.90	1	2	38.8	77.4
3.0SMCJ51CA	3.0SMCJ51A	51.0	56.70	62.70	1	2	36.4	82.4
3.0SMCJ54CA	3.0SMCJ54A	54.0	60.00	66.30	1	2	34.4	87.1
3.0SMCJ58CA	3.0SMCJ58A	58.0	64.40	71.20	1	2	32.0	93.0
3.0SMCJ60CA	3.0SMCJ60A	60.0	66.70	73.70	1	2	31.0	96
3.0SMCJ64CA	3.0SMCJ64A	64.0	71.10	78.60	1	2	29.2	103.0
3.0SMCJ70CA	3.0SMCJ70A	70.0	77.80	86.00	1	2	26.6	113.0
3.0SMCJ75CA	3.0SMCJ75A	75.0	83.30	92.10	1	2	24.8	121.0
3.0SMCJ78CA	3.0SMCJ78A	78.0	86.70	95.80	1	2	22.8	126.0

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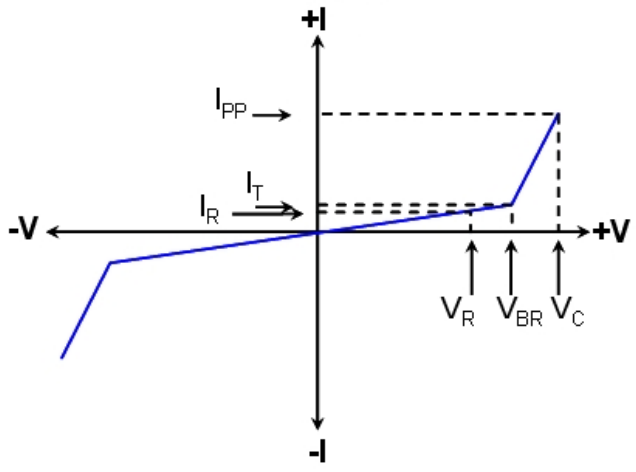
ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

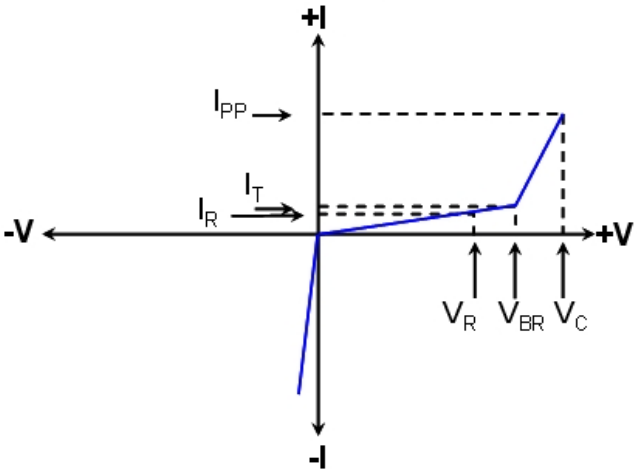
3.0SMCJ PART NUMBER		V_{RWM}	V(BR)		I(T)	Ir@V_{RWM}	I_{ppm}	Vc@I_{ppm}
BI-POLAR	UNI-POLAR	V	Min.V	Max.V	mA	Max.uA	Max.A	Max.V
3.0SMCJ85CA	3.0SMCJ85A	85.0	94.40	104.00	1	2	20.8	137.0
3.0SMCJ90CA	3.0SMCJ90A	90.0	100.00	111.00	1	2	20.6	146.0
3.0SMCJ100CA	3.0SMCJ100A	100.0	110.00	123.00	1	2	18.5	162.0
3.0SMCJ110CA	3.0SMCJ110A	110.0	122.00	135.00	1	2	16.9	177.0
3.0SMCJ120CA	3.0SMCJ120A	120.0	133.00	147.00	1	2	15.8	193.0
3.0SMCJ130CA	3.0SMCJ130A	130.0	144.00	159.00	1	2	13.0	231.0
3.0SMCJ150CA	3.0SMCJ150A	150.0	167.00	185.00	1	2	12.4	243.0
3.0SMCJ160CA	3.0SMCJ160A	160.0	178.00	197.00	1	2	11.6	259.0
3.0SMCJ170CA	3.0SMCJ170A	170.0	189.00	209.00	1	2	11.0	275.0
3.0SMCJ180CA	3.0SMCJ180A	180.0	198.00	230.40	1	2	10.2	292.0
3.0SMCJ200CA	3.0SMCJ200A	200.0	220.00	25600	1	2	9.20	324.0
3.0SMCJ210CA	3.0SMCJ210A	210.0	231.00	268.80	1	2	8.80	340.0
3.0SMCJ220CA	3.0SMCJ220A	220.0	242.00	281.60	1	2	8.40	356.0
3.0SMCJ250CA	3.0SMCJ250A	250.0	279.00	309.00	1	2	7.40	405.0
3.0SMCJ300CA	3.0SMCJ300A	300.0	335.00	371.00	1	2	6.20	486.0
3.0SMCJ350CA	3.0SMCJ350A	350.0	391.00	432.00	1	2	5.20	567.0
3.0SMCJ400CA	3.0SMCJ400A	400.0	447.00	494.00	1	2	4.60	648.0

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U-I Characteristics



BI-POLAR



UNI-POLAR

3000W 3.0SMCJ Series

RATING AND CHARACTERISTIC CURVES (3.0SMCJ Series)

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FIG.1 - PULSE DERATING CURVE

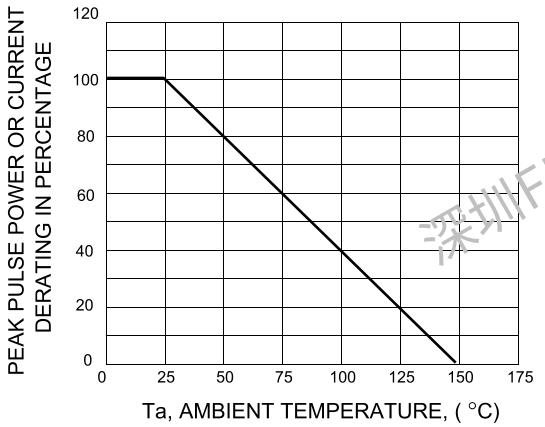


FIG.2 - TYPICAL JUNCTION CAPACITANCE

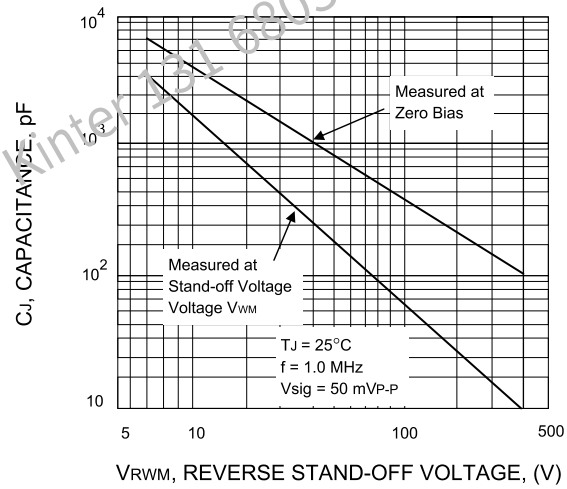


FIG.3 - PULSE WAVEFORM

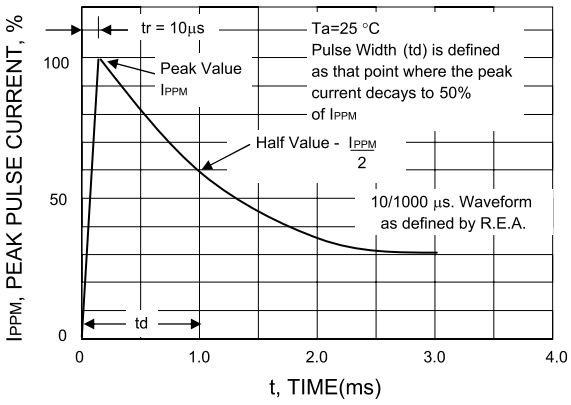


FIG.4 - PEAK PULSE POWER RATING CURVE

