

Features

- Glass Passivated Die Construction
- 3000W Peak Pulse Power Dissipation
- 5.0V – 170V Standoff Voltage
- Uni- and Bi-Directional Versions Available
- Excellent Clamping Capability
- Fast Response Time
- Plastic Case Material has UL Flammability Classification Rating 94V-O



Mechanical Data

- Case: JEDEC DO-214AB Low Profile Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking:
 Unidirectional – Device Code and Cathode Band
 Bidirectional – Device Code Only
- Weight: 0.21 grams (approx.)

SMC/DO-214AB		
Dim	Min	Max
A	5.59	6.22
B	6.60	7.11
C	2.92	3.07
D	0.152	0.305
E	7.75	8.13
F	2.00	2.62
G	0.051	0.203
H	0.76	1.27
All Dimensions in mm		

“C” Suffix Designates Bi-directional Devices
 “A” Suffix Designates 5% Tolerance Devices
 No Suffix Designates 10% Tolerance Devices

Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation 10/1000 μS Waveform (Note 1, 2) Figure 3	PPPM	3000 Minimum	W
Peak Pulse Current on 10/1000 μS Waveform (Note 1) Figure 4	IPPM	See Table 1	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) (Note 2, 3)	IFSM	100	A
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150	$^\circ\text{C}$

- Note: 1. Non-repetitive current pulse, per Figure 4 and derated above $T_A = 25^\circ\text{C}$ per Figure 1.
 2. Mounted on 8.0mm² copper pads to each terminal.
 3. Measured on 8.3ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minutes maximum.



Fig. 1 Pulse Derating Curve

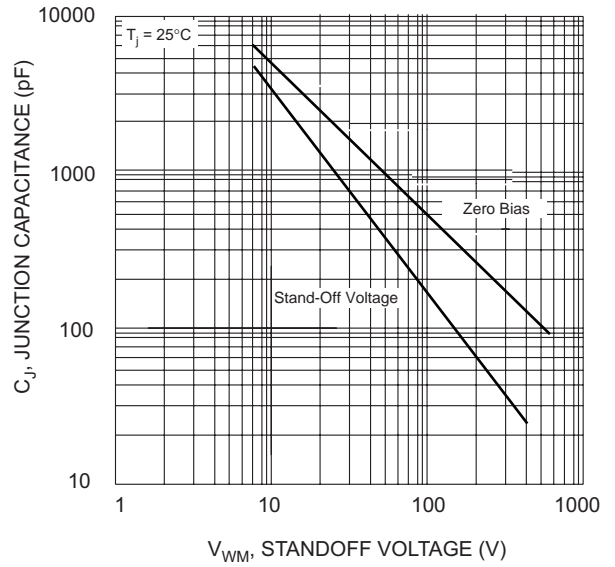


Fig. 2 Typical Junction Capacitance

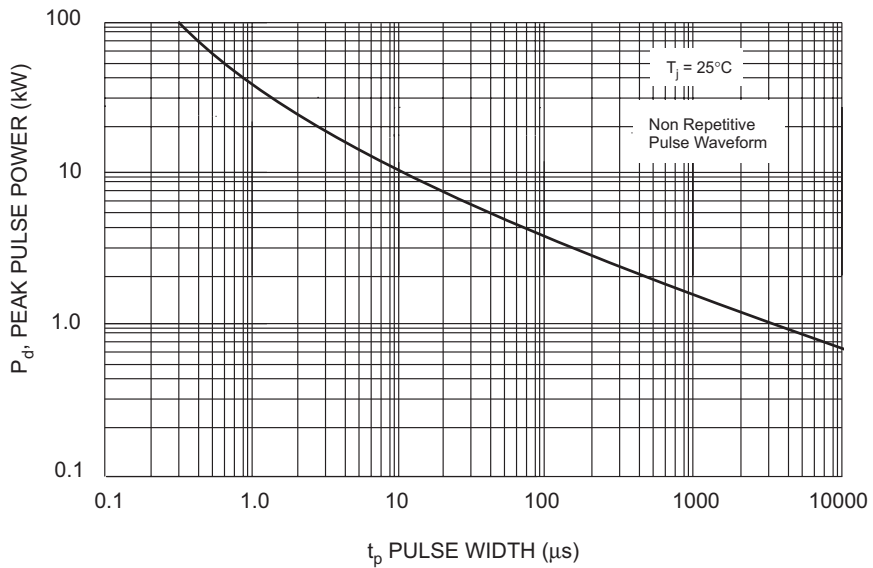


Fig. 3 Pulse Rating Curve



Fig. 4 Pulse Waveform

UNI-DIRECTIONAL 3000 WATT SURFACE MOUNT TVS

UNI-DIRECTIONAL PART NO.	DEVICE MARKING CODE	REVERSE STAND-OFF VOLTAGE VRWM (V)	BREAKDOWN VOLTAGE VBR (V) MIN. @IT	BREAKDOWN VOLTAGE VBR (V) MAX. @IT	TEST CURRENT IT (mA)	MAXIMUM CLAMPING VOLTAGE @Ipp Vc (V)	PEAK PULSE CURRENT Ipp (A)	REVERSE LEAKAGE @VRWM IR (uA)
3.0SMCJ5.0	HDD	5.00	6.40	7.55	10	9.6	312.5	1000
3.0SMCJ5.0A	HDE	5.00	6.40	7.25	10	9.2	326.0	1000
3.0SMCJ6.0	HDF	6.00	6.67	8.45	10	11.4	263.2	1000
3.0SMCJ6.0A	HDG	6.00	6.67	7.67	10	10.3	291.3	1000
3.0SMCJ6.5	HDH	6.50	7.22	9.14	10	12.3	243.9	500
3.0SMCJ6.5A	HDK	6.50	7.22	8.30	10	11.2	267.9	500
3.0SMCJ7.0	HDL	7.00	7.78	9.86	10	13.3	225.6	200
3.0SMCJ7.0A	HDM	7.00	7.78	8.95	10	12.0	250.0	200
3.0SMCJ7.5	HDN	7.50	8.33	10.67	1	14.3	209.8	100
3.0SMCJ7.5A	HDP	7.50	8.33	9.58	1	12.9	232.6	100
3.0SMCJ8.0	HDQ	8.00	8.99	11.30	1	15.0	220.0	50
3.0SMCJ8.0A	HDR	8.00	8.99	10.23	1	13.6	220.6	50
3.0SMCJ8.5	HDS	8.50	9.44	11.92	1	15.9	188.8	25
3.0SMCJ8.5A	HDT	8.50	9.44	10.82	1	14.4	208.4	25
3.0SMCJ9.0	HDU	9.00	10.00	12.60	1	16.9	177.4	10
3.0SMCJ9.0A	HDV	9.00	10.00	11.50	1	15.4	194.8	10
3.0SMCJ10	HDW	10.00	11.10	14.10	1	18.8	159.6	5
3.0SMCJ10A	HDX	10.00	11.10	12.80	1	17.0	176.4	5
3.0SMCJ11	HDY	11.00	12.20	15.40	1	20.1	149.2	5
3.0SMCJ11A	HDZ	11.00	12.20	14.00	1	18.2	184.8	5
3.0SMCJ12	HED	12.00	13.30	16.90	1	22.0	136.4	5
3.0SMCJ12A	HEE	12.00	13.30	15.30	1	19.9	150.6	5
3.0SMCJ13	HEF	13.00	14.40	18.20	1	23.8	126.0	5
3.0SMCJ13A	HEG	13.00	14.40	16.50	1	21.5	139.4	5
3.0SMCJ14	HEH	14.00	15.60	19.80	1	25.8	116.2	5
3.0SMCJ14A	HEK	14.00	15.60	17.90	1	23.2	129.4	5
3.0SMCJ15	HEL	15.00	16.70	21.10	1	26.9	111.6	5
3.0SMCJ15A	HEM	15.00	16.70	19.20	1	24.4	123.0	5
3.0SMCJ16	HEN	16.00	17.80	22.60	1	28.8	104.2	5
3.0SMCJ16A	HEP	16.00	17.80	20.50	1	26.0	115.4	5
3.0SMCJ17	HEQ	17.00	18.90	23.90	1	30.5	98.4	5
3.0SMCJ17A	HER	17.00	18.90	21.70	1	27.6	106.6	5
3.0SMCJ18	HES	18.00	20.00	25.30	1	32.2	93.2	5
3.0SMCJ18A	HET	18.00	20.00	23.30	1	29.2	102.8	5
3.0SMCJ20	HEU	20.00	22.20	28.10	1	35.8	83.8	5
3.0SMCJ20A	HEV	20.00	22.20	25.50	1	32.4	92.6	5
3.0SMCJ22	HEW	22.00	24.40	30.90	1	39.4	76.2	5
3.0SMCJ22A	HEX	22.00	24.40	28.00	1	35.5	84.4	5
3.0SMCJ24	HEY	24.00	26.70	33.80	1	43.0	69.8	5
3.0SMCJ24A	HEZ	24.00	26.70	30.70	1	38.9	77.2	5
3.0SMCJ26	HFD	26.00	28.90	36.60	1	46.6	64.4	5
3.0SMCJ26A	HFE	26.00	28.90	33.20	1	42.1	71.2	5
3.0SMCJ28	HFF	28.00	31.10	39.40	1	50.0	60.0	5
3.0SMCJ28A	HFG	28.00	31.10	35.80	1	45.4	66.0	5
3.0SMCJ30	HFH	30.00	33.30	42.20	1	53.5	56.0	5
3.0SMCJ30A	HFK	30.00	33.30	38.30	1	48.4	62.0	5
3.0SMCJ33	HFL	33.00	36.70	46.50	1	59.0	50.4	5
3.0SMCJ33A	HFM	33.00	36.70	42.20	1	53.3	56.2	5
3.0SMCJ36	HFN	36.00	40.00	50.70	1	64.3	46.6	5
3.0SMCJ36A	HFP	36.00	40.00	46.00	1	58.1	51.6	5
3.0SMCJ40	HFQ	40.00	44.40	56.30	1	71.4	42.0	5
3.0SMCJ40A	HFR	40.00	44.40	51.10	1	64.5	46.4	5
3.0SMCJ43	HFS	43.00	47.80	60.50	1	76.6	39.2	5
3.0SMCJ43A	HFT	43.00	47.80	54.90	1	69.4	43.2	5
3.0SMCJ45	HFU	45.00	50.00	63.30	1	80.3	37.4	5
3.0SMCJ45A	HFW	45.00	50.00	57.50	1	72.7	41.2	5
3.0SMCJ48	HFW	48.00	53.30	67.50	1	85.5	35.0	5
3.0SMCJ48A	HFY	48.00	53.30	61.30	1	77.4	38.8	5
3.0SMCJ51	HFZ	51.00	56.70	71.80	1	91.1	37.0	5
3.0SMCJ51A	HFZ	51.00	56.70	65.20	1	82.4	36.4	5
3.0SMCJ54	HGD	54.00	60.00	76.00	1	96.3	31.2	5
3.0SMCJ54A	HGE	54.00	60.00	69.00	1	87.1	34.4	5
3.0SMCJ58	HGF	58.00	64.40	81.60	1	103.0	29.2	5
3.0SMCJ58A	HGG	58.00	64.40	74.10	1	93.6	32.0	5
3.0SMCJ60	HGH	60.00	66.70	84.50	1	107.0	28.0	5
3.0SMCJ60A	HGK	60.00	66.70	76.70	1	96.8	31.0	5
3.0SMCJ64	HGL	64.00	71.10	90.10	1	114.0	26.4	5
3.0SMCJ64A	HGM	64.00	71.10	81.80	1	103.0	29.2	5
3.0SMCJ70	HGN	70.00	77.80	98.60	1	125.0	24.0	5
3.0SMCJ70A	HGP	70.00	77.80	89.50	1	113.0	26.6	5
3.0SMCJ75	HGQ	75.00	83.30	105.70	1	134.0	22.4	5
3.0SMCJ75A	HGR	75.00	83.30	95.80	1	121.0	24.8	5
3.0SMCJ78	HGS	78.00	86.70	109.80	1	139.0	21.6	5
3.0SMCJ78A	HGT	78.00	86.70	99.70	1	126.0	22.8	5
3.0SMCJ85	HGU	85.00	94.40	119.20	1	151.0	19.8	5
3.0SMCJ85A	HGV	85.00	94.40	108.20	1	137.0	20.8	5
3.0SMCJ90	HGW	90.00	100.00	126.50	1	160.0	18.8	5
3.0SMCJ90A	HGX	90.00	100.00	115.50	1	146.0	20.6	5
3.0SMCJ100	HGY	100.00	111.00	141.00	1	179.0	16.6	5
3.0SMCJ100A	HGZ	100.00	111.00	128.00	1	162.0	18.6	5
3.0SMCJ110	HHD	110.00	122.00	154.50	1	196.0	15.4	5
3.0SMCJ110A	HHE	110.00	122.00	140.50	1	177.0	16.8	5
3.0SMCJ120	HHF	120.00	133.00	169.00	1	214.0	14.0	5
3.0SMCJ120A	HHG	120.00	133.00	153.00	1	193.0	15.6	5
3.0SMCJ130	HHH	130.00	144.00	182.50	1	231.0	13.0	5
3.0SMCJ130A	HHK	130.00	144.00	165.50	1	209.0	14.4	5
3.0SMCJ150	HHL	150.00	167.00	211.50	1	269.0	11.2	5
3.0SMCJ150A	HHM	150.00	167.00	192.50	1	243.0	12.4	5
3.0SMCJ160	HHN	160.00	178.00	226.00	1	287.0	10.4	5
3.0SMCJ160A	HHP	160.00	178.00	205.00	1	259.0	11.6	5
3.0SMCJ170	HHQ	170.00	189.00	239.50	1	304.0	9.8	5
3.0SMCJ170A	HHR	170.00	189.00	217.50	1	275.0	11.0	5

ORDERING INFORMATION

Product No.♦	Package Type	Shipping Quantity
3.0SMCJxx-T1	SMC	500/Tape & Reel
3.0SMCJxx-T3	SMC	3000/Tape & Reel
3.0SMCJxxA-T1	SMC	500/Tape & Reel
3.0SMCJxxA-T3	SMC	3000/Tape & Reel
3.0SMCJxxC-T1	SMC	500/Tape & Reel
3.0SMCJxxC-T3	SMC	3000/Tape & Reel
3.0SMCJxxCA-T1	SMC	500/Tape & Reel
3.0SMCJxxCA-T3	SMC	3000/Tape & Reel

Products listed in **bold** are WTE **Preferred** devices.

♦T1 suffix refers to a 7" reel. T3 suffix refers to a 13" reel.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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