

3.0SMCJ Series – 3000 Watt Surface Mount



3.0SMCJ Series Features

- RoHS Compliance designated by suffix “F”
- 3000 watt peak pulse power dissipation
- Available in voltages from 5.0V to 170V
- Unidirectional and bidirectional
- Glass passivated junction
- Low clamping factor
- Available in tape and reel (Reel quantity = 3,000 pieces)
- Each device 100% surge tested
- UL 497B Recognized, File # E135015
- Tape and Reel to EIA Standard RS-481-A

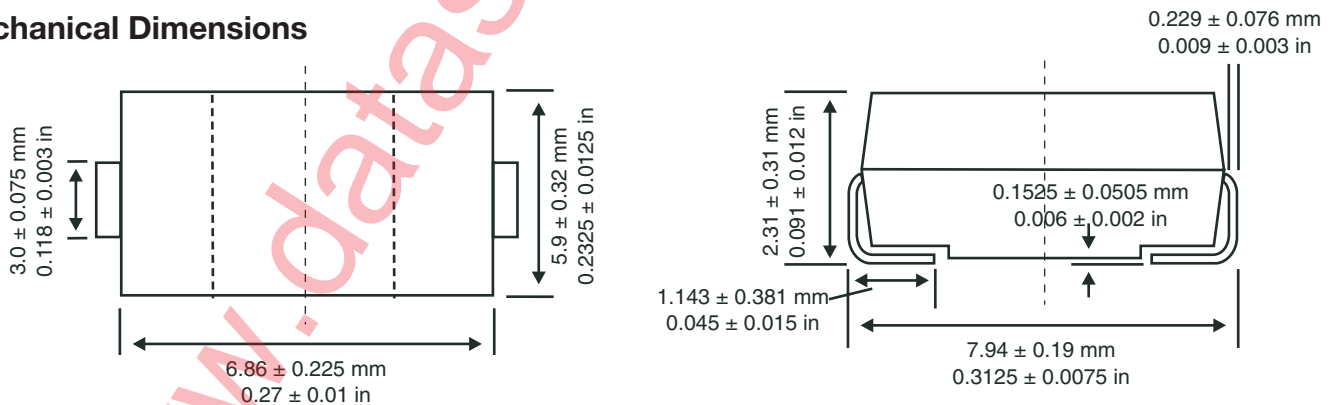
Absolute Maximum Ratings

Parameter	Value
Peak pulse power dissipation (PPPM) at 25°C	3000W
Operating and storage temperatures	-55°C to + 150°C

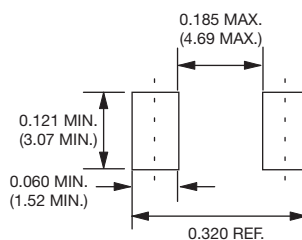
Mechanical Characteristics

- DO214AB package
- UL94V-0 Thermoset Epoxy
- Solder plated terminals
- Solderable per MIL-STD-750 Method 2026

Mechanical Dimensions



Standard Mounting Pad Layout



All dimensions in inches and (millimeters)

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Electrical Characteristics

Part Number*	Uni Part Marking	Bi Part Marking	Rated Standoff Voltage V _{wm}	Breakdown Voltage			Maximum Stand By Current @V _{WM} + I _d	10/1000 μ s Maximum Clamping Voltage @I _{ppm} # V _c Max	10/1000 μ s Rated Peak Impulse Current I _{ppm} #
				V _{br} (Volts)		@I _t			
				(Volts)	Min	Max			
3.0SMCJ5.0	HDD	IDD	5	6.4	7.55	10	1000	9.6	312.5
3.0SMCJ5.0A	HDE	IDE	5	6.4	7.23	10	1000	9.2	326
3.0SMCJ6.0	HDF	IDF	6	6.67	8.45	10	1000	11.4	263.2
3.0SMCJ6.0A	HDG	IDG	6	6.67	7.67	10	1000	10.3	291.3
3.0SMCJ6.5	HDH	IDH	6.5	7.22	9.14	10	500	12.3	243.9
3.0SMCJ6.5A	HDK	IDK	6.5	7.22	8.3	10	500	11.2	267.9
3.0SMCJ7.0	HDL	IDL	7	7.78	9.86	10	200	13.3	225.6
3.0SMCJ7.0A	HDM	IDM	7	7.78	8.95	10	200	12	250
3.0SMCJ7.5	HDN	IDN	7.5	8.33	10.8	1	100	14.3	209.8
3.0SMCJ7.5A	HDP	IDP	7.5	8.33	9.58	1	100	12.9	232.6
3.0SMCJ8.0	HDQ	IDQ	8	8.89	11.3	1	50	15	200
3.0SMCJ8.0A	HDR	IDR	8	8.89	10.2	1	50	13.6	220.6
3.0SMCJ8.5	HDS	IDS	8.5	9.44	11.9	1	25	15.9	188.8
3.0SMCJ8.5A	HDT	IDT	8.5	9.44	10.8	1	25	14.4	208.4
3.0SMCJ9.0	HDU	IDU	9	10	12.8	1	10	16.9	177.4
3.0SMCJ9.0A	HDV	IDV	9	10	11.5	1	10	15.4	194.8
3.0SMCJ10	HDW	IDW	10	11.1	14.1	1	5	18.8	159.6
3.0SMCJ10A	HDX	IDX	10	11.1	12.8	1	5	17	176.4
3.0SMCJ11	HDY	IDY	11	12.2	15.4	1	5	20.1	149.2
3.0SMCJ11A	HDZ	IDZ	11	12.2	14.4	1	5	18.2	184.8
3.0SMCJ12	HED	IED	12	13.3	16.9	1	5	22	136.4
3.0SMCJ12A	HEE	IEE	12	13.3	15.3	1	5	19.9	150.6
3.0SMCJ13	HEF	IEF	13	14.4	18.2	1	5	23.8	126
3.0SMCJ13A	HEG	IEG	13	14.4	16.5	1	5	21.5	139.4
3.0SMCJ14	HEH	IEH	14	15.6	19.8	1	5	25.8	116.2
3.0SMCJ14A	HEK	IEK	14	15.6	17.9	1	5	23.2	129.4

* = Add "C" or "CA" suffix for bidirectional device types.

+ = For Bidirectional Types Having V_{WM} <= 10V, their I_D limit is doubled.

= See General Information for Impulse Current Waveform.

For Pb-Free add suffix – "F"

3.0SMCJ Series – 3000 Watt Surface Mount**Electrical Characteristics (continued)**

Part Number*	Uni Part Marking	Bi Part Marking	Rated Standoff Voltage V _{wm}	Breakdown Voltage			Maximum Stand By Current @V _{WM} + I _d	10/1000 μ s Maximum Clamping Voltage @I _{ppm} # V _c Max	10/1000 μ s Rated Peak Impulse Current I _{ppm} #
				V _{br} (Volts)		@I _t			
				(Volts)	Min	Max			
3.0SMCJ15	HEL	IEL	15	16.7	21.1	1	5	26.9	111.6
3.0SMCJ15A	HEM	IEM	15	16.7	19.2	1	5	24.4	123
3.0SMCJ16	HEN	IEN	16	17.8	22.6	1	5	28.8	104.2
3.0SMCJ16A	HEP	IEP	16	17.8	20.5	1	5	26	115.4
3.0SMCJ17	HEQ	IEQ	17	18.9	23.9	1	5	30.5	98.4
3.0SMCJ17A	HER	IER	17	18.9	21.7	1	5	27.6	106.6
3.0SMCJ18	HES	IES	18	20	25.3	1	5	32.2	93.2
3.0SMCJ18A	HET	IET	18	20	23.3	1	5	29.2	102.8
3.0SMCJ20	HEU	IEU	20	22.2	28.1	1	5	35.8	83.8
3.0SMCJ20A	HEV	IEV	20	22.2	25.5	1	5	32.4	92.6
3.0SMCJ22	HEW	IEW	22	24.4	30.9	1	5	39.4	76.2
3.0SMCJ22A	HEX	IEX	22	24.4	28	1	5	35.5	84.4
3.0SMCJ24	HEY	IEY	24	26.7	33.8	1	5	43	69.8
3.0SMCJ24A	HEZ	IEZ	24	26.7	30.7	1	5	38.9	77.2
3.0SMCJ26	HFD	IFD	26	28.9	36.8	1	5	46.6	64.4
3.0SMCJ26A	HFE	IFE	26	28.9	32.2	1	5	42.1	71.2
3.0SMCJ28	HFF	IFF	28	31.1	39.4	1	5	50	60
3.0SMCJ28A	HFG	IFG	28	31.1	35.8	1	5	45.4	66
3.0SMCJ30	HFH	IFH	30	33.3	42.4	1	5	53.5	56
3.0SMCJ30A	HFK	IFK	30	33.3	38.3	1	5	46.6	62
3.0SMCJ33	HFL	IFL	33	36.7	46.9	1	5	59	50.4
3.0SMCJ33A	HFM	IFM	33	36.7	42.2	1	5	53.3	56.2
3.0SMCJ36	HFN	IFN	36	40	50.7	1	5	64.3	46.6
3.0SMCJ36A	HFP	IFP	36	40	46	1	5	58.1	51.6
3.0SMCJ40	HFQ	IFQ	40	44.4	56.3	1	5	71.4	42
3.0SMCJ40A	HFR	IFR	40	44.4	51.1	1	5	64.5	46.4

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3.0SMCJ Series – 3000 Watt Surface Mount**Electrical Characteristics (continued)**

Part Number*	Uni Part Marking	Bi Part Marking	Rated Standoff Voltage Vwm	Breakdown Voltage			Maximum Stand By Current @VWM+ Id	10/1000µs Maximum Clamping Voltage @Ippm# Vc Max	10/1000µs Rated Peak Impulse Current Ippm#
				Vbr (Volts)		@It			
				(Volts)	Min	Max			
3.0SMCJ43	HFS	IFS	43	47.8	60.5	1	5	76.7	39.2
3.0SMCJ43A	HFT	IFT	43	47.8	54.9	1	5	69.4	43.2
3.0SMCJ45	HFU	IFU	45	50	63.3	1	5	80.3	37.4
3.0SMCJ45A	HFV	IFV	45	50	57.5	1	5	72.7	41.2
3.0SMCJ48	HFV	IFV	48	53.3	67.5	1	5	85.5	35
3.0SMCJ48A	HFX	IFX	48	53.3	61.3	1	5	77.4	38.8
3.0SMCJ51	HFY	IFY	51	56.7	71.8	1	5	91.1	37
3.0SMCJ51A	HFZ	IFZ	51	56.7	65.2	1	5	82.4	36.4
3.0SMCJ54	HGD	IGD	54	60	76	1	5	96.3	31.2
3.0SMCJ54A	HGE	IGE	54	60	69	1	5	87.1	34.4
3.0SMCJ58	HGF	IGF	58	64.4	81.6	1	5	103	39.2
3.0SMCJ58A	HGG	IGG	58	64.4	74.6	1	5	93.6	32
3.0SMCJ60	HGH	IGH	60	66.7	84.5	1	5	107	28
3.0SMCJ60A	HGK	IGK	60	66.7	76.7	1	5	96.8	31
3.0SMCJ64	HGL	IGL	64	71.1	90.1	1	5	114	26.4
3.0SMCJ64A	HGM	IGM	64	71.1	81.8	1	5	103	29.2
3.0SMCJ70	HGN	IGN	70	77.8	98.6	1	5	125	24
3.0SMCJ70A	HGP	IGP	70	77.8	89.5	1	5	113	26.6
3.0SMCJ75	HGQ	IGQ	75	83.3	106	1	5	134	22.4
3.0SMCJ75A	HGR	IGR	75	83.3	95.8	1	5	121	24.8
3.0SMCJ78	HGS	IGS	78	86.7	110	1	5	139	21.6
3.0SMCJ78A	HGT	IGT	78	86.7	99.7	1	5	126	22.8
3.0SMCJ85	HGU	IGU	85	94.4	119.2	1	5	151	19.8
3.0SMCJ85A	HGV	IGV	85	94.4	108.2	1	5	137	20.8
3.0SMCJ90	HGW	IGW	90	100	126.5	1	5	160	18.8
3.0SMCJ90A	HGX	IGX	90	100	115.5	1	5	146	20.6

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Part Number*	Uni Part Marking	Bi Part Marking	Rated Standoff Voltage V _{wm}	Breakdown Voltage			Maximum Stand By Current @V _{WM} + I _d	10/1000 μ s Maximum Clamping Voltage @I _{ppm} # V _c Max	10/1000 μ s Rated Peak Impulse Current I _{ppm} #
				V _{br} (Volts)		@I _t			
				(Volts)	Min	Max			
3.0SMCJ100	HGY	IGY	100	111	141	1	5	179	16.6
3.0SMCJ100A	HGZ	IGZ	100	111	128	1	5	162	18.6
3.0SMCJ110	HHD	IHD	110	122	154	1	5	196	15.4
3.0SMCJ110A	HHE	IHE	110	122	140	1	5	177	16.8
3.0SMCJ120	HHF	IHF	120	133	169	1	5	214	14
3.0SMCJ120A	HHG	IHG	120	133	153	1	5	193	15.6
3.0SMCJ130	HHH	IHH	130	144	182	1	5	231	13
3.0SMCJ130A	HHK	IHK	130	144	165	1	5	209	14.4
3.0SMCJ150	HHL	IHL	150	167	211.5	1	5	268	11.2
3.0SMCJ150A	HHM	IHM	150	167	192	1	5	243	12.4
3.0SMCJ160	HHN	IHN	160	178	226	1	5	287	10.4
3.0SMCJ160A	HHP	IHP	160	178	205	1	5	259	11.6
3.0SMCJ170	HHQ	IHQ	170	189	239.5	1	5	304	9.8
3.0SMCJ170A	HHR	IHR	170	189	217.5	1	5	275	11

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