

**TVS Diodes - Surface Mount - 3000 Watt Specifications - 3.0SMCJ Series Electrical Characteristics**

Part Number*	Uni Part Marking	Bi Part Marking	Rated Standoff Voltage V <sub>wm</sub> (Volts)	Breakdown Voltage		Maximum Stand By Current @V <sub>wm</sub> + I <sub>d</sub> ( $\mu$ A)	10/1000 $\mu$ s Maximum Clamping Voltage @I <sub>ppm</sub> # V <sub>c</sub> Max (Volts)	10/1000 $\mu$ s Rated Peak Impulse Current I <sub>ppm</sub> # (Amperes)
				V <sub>br</sub> Min (Volts)	@I <sub>t</sub> (mA)			
3.0SMCJ5.0	HDD	IDD	5.0	6.40	10	1000.0	9.6	312.5
3.0SMCJ5.0A	HDE	IDE	5.0	6.40	10	1000.0	9.2	326.0
3.0SMCJ6.0	HDF	IDF	6.0	6.67	10	1000.0	11.4	263.2
3.0SMCJ6.0A	HDG	IDG	6.0	6.67	10	1000.0	10.3	291.3
3.0SMCJ6.5	HDH	IDH	6.5	7.22	10	500.0	12.3	243.9
3.0SMCJ6.5A	HDK	IDK	6.5	7.22	10	500.0	11.2	267.9
3.0SMCJ7.0	HDL	IDL	7.0	7.78	10	200.0	13.3	225.6
3.0SMCJ7.0A	HDM	IDM	7.0	7.78	10	200.0	12.0	250.0
3.0SMCJ7.5	HDN	IDN	7.5	8.33	1	100.0	14.3	209.8
3.0SMCJ7.5A	HDP	IDP	7.5	8.33	1	100.0	12.9	232.6
3.0SMCJ8.0	HDQ	IDQ	8.0	8.89	1	50.0	15.0	200.0
3.0SMCJ8.0A	HDR	IDR	8.0	8.89	1	50.0	13.6	220.6
3.0SMCJ8.5	HDS	IDS	8.5	9.44	1	25.0	15.9	188.8
3.0SMCJ8.5A	HDT	IDT	8.5	9.44	1	25.0	14.4	208.4
3.0SMCJ9.0	HDU	IDU	9.0	10.00	1	10.0	16.9	177.4
3.0SMCJ9.0A	HDV	IDV	9.0	10.00	1	10.0	15.4	194.8
3.0SMCJ10	HDW	IDW	10.0	11.10	1	5.0	18.8	159.6
3.0SMCJ10A	HDX	IDX	10.0	11.10	1	5.0	17.0	176.4
3.0SMCJ11	HDY	IDY	11.0	12.20	1	5.0	20.1	149.2
3.0SMCJ11A	HDZ	IDZ	11.0	12.20	1	5.0	18.2	184.8
3.0SMCJ12	HED	IED	12.0	13.30	1	5.0	22.0	136.4
3.0SMCJ12A	HEE	IEE	12.0	13.30	1	5.0	19.9	150.6
3.0SMCJ13	HEF	IEF	13.0	14.40	1	5.0	23.8	126.0
3.0SMCJ13A	HEG	IEG	13.0	14.40	1	5.0	21.5	139.4
3.0SMCJ14	HEH	IEH	14.0	15.60	1	5.0	25.8	116.2
3.0SMCJ14A	HEK	IEK	14.0	15.60	1	5.0	23.2	129.4

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

+ = For Bidirectional Types Having V<sub>wm</sub> <= 10V, their I<sub>d</sub> limit is doubled.

# = See General Information for Impulse Current Waveform.

**TVS Diodes - Surface Mount - 3000 Watt Specifications - 3.0SMCJ Series Electrical Characteristics - (Continued)**

Part Number*	Uni Part Marking	Bi Part Marking	Rated Standoff Voltage Vwm (Volts)	Breakdown Voltage		Maximum Stand By Current @Vwm+ Id (µA)	10/1000µs Maximum Clamping Voltage @Ippm# Vc Max (Volts)	10/1000µs Rated Peak Impulse Current Ippm# (Amperes)
				Vbr Min (Volts)	@It (mA)			
3.0SMCJ15	HEL	IEL	15.0	16.70	1	5.0	26.9	111.6
3.0SMCJ15A	HEM	IEM	15.0	16.70	1	5.0	24.4	123.0
3.0SMCJ16	HEN	IEN	16.0	17.80	1	5.0	28.8	104.2
3.0SMCJ16A	HEP	IEP	16.0	17.80	1	5.0	26.0	115.4
3.0SMCJ17	HEQ	IEQ	17.0	18.90	1	5.0	30.5	98.4
3.0SMCJ17A	HER	IER	17.0	18.90	1	5.0	27.6	106.6
3.0SMCJ18	HES	IES	18.0	20.00	1	5.0	32.2	93.2
3.0SMCJ18A	HET	IET	18.0	20.00	1	5.0	29.2	102.8
3.0SMCJ20	HEU	IEU	20.0	22.20	1	5.0	35.8	83.8
3.0SMCJ20A	HEV	IEV	20.0	22.20	1	5.0	32.4	92.6
3.0SMCJ22	HEW	IEW	22.0	24.40	1	5.0	39.4	76.2
3.0SMCJ22A	HEX	IEX	22.0	24.40	1	5.0	35.5	84.4
3.0SMCJ24	HEY	IEY	24.0	26.70	1	5.0	43.0	69.8
3.0SMCJ24A	HEZ	IEZ	24.0	26.70	1	5.0	38.9	77.2
3.0SMCJ26	HFD	IFD	26.0	28.90	1	5.0	46.6	64.4
3.0SMCJ26A	HFE	IFE	26.0	28.90	1	5.0	42.1	71.2
3.0SMCJ28	HFF	IFF	28.0	31.10	1	5.0	50.0	60.0
3.0SMCJ28A	HFG	IFG	28.0	31.10	1	5.0	45.4	66.0
3.0SMCJ30	HFH	IFH	30.0	33.30	1	5.0	53.5	56.0
3.0SMCJ30A	HFJ	IFJ	30.0	33.30	1	5.0	46.6	62.0
3.0SMCJ33	HFL	IFL	33.0	36.70	1	5.0	59.0	50.4
3.0SMCJ33A	HFM	IFM	33.0	36.70	1	5.0	53.3	56.2
3.0SMCJ36	HFN	IFN	36.0	40.00	1	5.0	64.3	46.6
3.0SMCJ36A	HFP	IFP	36.0	40.00	1	5.0	58.1	51.6
3.0SMCJ40	HFQ	IFQ	40.0	44.40	1	5.0	71.4	42.0
3.0SMCJ40A	HFR	IFR	40.0	44.40	1	5.0	64.5	46.4

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## TVS Diodes - Surface Mount - 3000 Watt Specifications - 3.0SMCJ Series Electrical Characteristics - (Continued)

Part Number*	Uni Part Marking	Bi Part Marking	Rated Standoff Voltage V <sub>wm</sub> (Volts)	Breakdown Voltage		Maximum Stand By Current @V <sub>wm</sub> + I <sub>d</sub> ( $\mu$ A)	10/1000 $\mu$ s Maximum Clamping Voltage @I <sub>ppm</sub> # V <sub>c</sub> Max (Volts)	10/1000 $\mu$ s Rated Peak Impulse Current I <sub>ppm</sub> # (Amperes)
				V <sub>br</sub> Min (Volts)	@I <sub>t</sub> (mA)			
3.0SMCJ43	HFS	IFS	43.0	47.80	1	5.0	76.7	39.2
3.0SMCJ43A	HFT	IFT	43.0	47.80	1	5.0	69.4	43.2
3.0SMCJ45	HFU	IFU	45.0	50.00	1	5.0	80.3	37.4
3.0SMCJ45A	HFV	IFV	45.0	50.00	1	5.0	72.7	41.2
3.0SMCJ48	HFV	IFV	48.0	53.30	1	5.0	85.5	35.0
3.0SMCJ48A	HFX	IFX	48.0	53.30	1	5.0	77.4	38.8
3.0SMCJ51	HFY	IFY	51.0	56.70	1	5.0	91.1	37.0
3.0SMCJ51A	HFZ	IFZ	51.0	56.70	1	5.0	82.4	36.4
3.0SMCJ54	HGD	IGD	54.0	60.00	1	5.0	96.3	31.2
3.0SMCJ54A	HGE	IGE	54.0	60.00	1	5.0	87.1	34.4
3.0SMCJ58	HGF	IGF	58.0	64.40	1	5.0	103.0	39.2
3.0SMCJ58A	HGG	IGG	58.0	64.40	1	5.0	93.6	32.0
3.0SMCJ60	HGH	IGH	60.0	66.70	1	5.0	107.0	28.0
3.0SMCJ60A	HGK	IGK	60.0	66.70	1	5.0	96.8	31.0
3.0SMCJ64	HGL	IGL	64.0	71.10	1	5.0	114.0	26.4
3.0SMCJ64A	HGM	IGM	64.0	71.10	1	5.0	103.0	29.2
3.0SMCJ70	HGN	IGN	70.0	77.80	1	5.0	125.0	24.0
3.0SMCJ70A	HGP	IGP	70.0	77.80	1	5.0	113.0	26.6
3.0SMCJ75	HGQ	IGQ	75.0	83.30	1	5.0	134.0	22.4
3.0SMCJ75A	HGR	IGR	75.0	83.30	1	5.0	121.0	24.8
3.0SMCJ78	HGS	IGS	78.0	86.70	1	5.0	139.0	21.6
3.0SMCJ78A	HGT	IGT	78.0	86.70	1	5.0	126.0	22.8
3.0SMCJ85	HGU	IGU	85.0	94.40	1	5.0	151.0	19.8
3.0SMCJ85A	HGV	IGV	85.0	94.40	1	5.0	137.0	20.8
3.0SMCJ90	HGW	IGW	90.0	100.00	1	5.0	160.0	18.8
3.0SMCJ90A	HGX	IGX	90.0	100.00	1	5.0	146.0	20.6

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				V <sub>br</sub> Min (Volts)	@I <sub>t</sub> (mA)			
3.0SMCJ100	HGY	IGY	100.0	111.00	1	5.0	179.0	16.6
3.0SMCJ100A	HGZ	IGZ	100.0	111.00	1	5.0	162.0	18.6
3.0SMCJ110	HHD	IHD	110.0	122.00	1	5.0	196.0	15.4
3.0SMCJ110A	HHE	IHE	110.0	122.00	1	5.0	177.0	16.8
3.0SMCJ120	HHF	IHF	120.0	133.00	1	5.0	214.0	14.0
3.0SMCJ120A	HHG	IHG	120.0	133.00	1	5.0	193.0	15.6
3.0SMCJ130	HHH	IHH	130.0	144.00	1	5.0	231.0	13.0
3.0SMCJ130A	HHK	IHK	130.0	144.00	1	5.0	209.0	14.4
3.0SMCJ150	HHL	IHL	150.0	167.00	1	5.0	268.0	11.2
3.0SMCJ150A	HHM	IHM	150.0	167.00	1	5.0	243.0	12.4
3.0SMCJ160	HHN	IHN	160.0	178.00	1	5.0	287.0	10.4
3.0SMCJ160A	HHP	IHP	160.0	178.00	1	5.0	259.0	11.6
3.0SMCJ170	HHQ	IHQ	170.0	189.00	1	5.0	304.0	9.8
3.0SMCJ170A	HHR	IHR	170.0	189.00	1	5.0	275.0	11.0

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## TVS Diodes - Surface Mount - 3000 Watt - 3.0SMCJ Series Features

### 3.0SMCJ Series Features

- 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 bulk or 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

- 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

