

TVS Diodes - Surface Mount - 1500 Watt Specifications - SMCJ Series Electrical Characteristics

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)			
SMCJ5.0	GDD	BDD	5.0	6.40	10	1000	9.6	156.2
SMCJ5.0A	GDE	BDE	5.0	6.40	10	1000	9.2	163.0
SMCJ6.0	GDF	BDF	6.0	6.67	10	1000	11.4	131.6
SMCJ6.0A	GDG	BDG	6.0	6.67	10	1000	10.3	145.6
SMCJ6.5	GDH	BDH	6.5	7.22	10	500	12.3	122.0
SMCJ6.5A	GDK	BDK	6.5	7.22	10	500	11.2	133.9
SMCJ7.0	GDL	BDL	7.0	7.78	10	200	13.3	112.8
SMCJ7.0A	GDM	BDM	7.0	7.78	10	200	12.0	125.0
SMCJ7.5	GDN	BDN	7.5	8.33	1	100	14.3	104.9
SMCJ7.5A	GDP	BDP	7.5	8.33	1	100	12.9	116.3
SMCJ8.0	GDQ	BDQ	8.0	8.89	1	50	15.0	100.0
SMCJ8.0A	GDR	BDR	8.0	8.89	1	50	13.6	110.3
SMCJ8.5	GDS	BDS	8.5	9.44	1	25	15.9	94.3
SMCJ8.5A	GDT	BDT	8.5	9.44	1	20	14.4	104.2
SMCJ9.0	GDU	BDU	9.0	10.00	1	10	16.9	88.7
SMCJ9.0A	GDV	BDV	9.0	10.00	1	10	15.4	97.4
SMCJ10	GDW	BDW	10.0	11.10	1	5	18.8	79.8
SMCJ10A	GDX	BDX	10.0	11.10	1	5	17.0	88.2
SMCJ11	GDY	BDY	11.0	12.20	1	5	20.1	74.6
SMCJ11A	GDZ	BDZ	11.0	12.20	1	5	18.2	82.4
SMCJ12	GED	BED	12.0	13.30	1	5	22.0	68.2
SMCJ12A	GEE	BEE	12.0	13.30	1	5	19.9	75.3
SMCJ13	GEF	BEF	13.0	14.40	1	5	23.8	63.0
SMCJ13A	GEG	BEG	13.0	14.40	1	5	21.5	69.7
SMCJ14	GEH	BEH	14.0	15.60	1	5	25.8	58.1
SMCJ14A	GEK	BEK	14.0	15.60	1	5	23.2	64.7

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

+ = For Bidirectional Types Having Vwm <= 10V, their Id limit is doubled.

= See General Information for Impulse Current Waveform.

TVS Diodes - Surface Mount - 1500 Watt Specifications - SMCJ 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)			
SMCJ15	GEL	BEL	15.0	16.70	1	5	26.9	55.8
SMCJ15A	GEM	BEM	15.0	16.70	1	5	24.4	61.5
SMCJ16	GEN	BEN	16.0	17.80	1	5	28.8	52.1
SMCJ16A	GEP	BEP	16.0	17.80	1	5	26.0	57.7
SMCJ17	GEQ	BEQ	17.0	18.90	1	5	30.5	49.2
SMCJ17A	GER	BER	17.0	18.90	1	5	27.6	53.3
SMCJ18	GES	BES	18.0	20.00	1	5	32.2	46.6
SMCJ18A	GET	BET	18.0	20.00	1	5	29.2	51.4
SMCJ20	GEU	BEU	20.0	22.20	1	5	35.8	41.9
SMCJ20A	GEV	BEV	20.0	22.20	1	5	32.4	46.3
SMCJ22	GEW	BEW	22.0	24.40	1	5	39.4	38.1
SMCJ22A	GEX	BEX	22.0	24.40	1	5	35.5	42.2
SMCJ24	GEY	BEY	24.0	26.70	1	5	43.0	34.9
SMCJ24A	GEZ	BEZ	24.0	26.70	1	5	38.9	38.6
SMCJ26	GFD	BFD	26.0	28.90	1	5	46.6	32.2
SMCJ26A	GFE	BFE	26.0	28.90	1	5	42.1	35.6
SMCJ28	GFF	BFF	28.0	31.10	1	5	50.0	30.0
SMCJ28A	GFG	BFG	28.0	31.10	1	5	45.4	33.0
SMCJ30	GFH	BFH	30.0	33.30	1	5	53.5	28.0
SMCJ30A	GFK	BFK	30.0	33.30	1	5	48.4	31.0
SMCJ33	GFL	BFL	33.0	36.70	1	5	59.0	25.2
SMCJ33A	GFM	BFM	33.0	36.70	1	5	53.3	28.1
SMCJ36	GFN	BFN	36.0	40.00	1	5	64.3	23.3
SMCJ36A	GFP	BFP	36.0	40.00	1	5	58.1	25.8
SMCJ40	GFQ	BFQ	40.0	44.40	1	5	71.4	21.0
SMCJ40A	GFR	BFR	40.0	44.40	1	5	64.5	23.2

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

+ = For Bidirectional Types Having Vwm <= 10V, their Id limit is doubled.

= See General Information for Impulse Current Waveform.

TVS Diodes - Surface Mount - 1500 Watt Specifications - SMCJ 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)			
SMCJ43	GFS	BFS	43.0	47.80	1	5	76.7	19.6
SMCJ43A	GFT	BFT	43.0	47.80	1	5	69.4	21.6
SMCJ45	GFU	BFU	45.0	50.00	1	5	80.3	18.7
SMCJ45A	GFV	BFV	45.0	50.00	1	5	72.7	20.6
SMCJ48	GFW	BFW	48.0	53.30	1	5	85.5	17.5
SMCJ48A	GFX	BFX	48.0	53.30	1	5	77.4	19.4
SMCJ51	GFY	BFY	51.0	56.70	1	5	91.1	18.5
SMCJ51A	GFZ	BFZ	51.0	56.70	1	5	82.4	18.2
SMCJ54	GGD	BGD	54.0	60.00	1	5	96.3	15.6
SMCJ54A	GGE	BGE	54.0	60.00	1	5	87.1	17.2
SMCJ58	GGF	BGF	58.0	64.40	1	5	103.0	14.6
SMCJ58A	GGG	BGG	58.0	64.40	1	5	93.6	16.0
SMCJ60	GGH	BGH	60.0	66.70	1	5	107.0	14.0
SMCJ60A	GGK	BGK	60.0	66.70	1	5	96.8	15.5
SMCJ64	GGL	BGL	64.0	71.10	1	5	114.0	13.2
SMCJ64A	GGM	BGM	64.0	71.10	1	5	103.0	14.6
SMCJ70	GGN	BGN	70.0	77.80	1	5	125.0	12.0
SMCJ70A	GGP	BGP	70.0	77.80	1	5	113.0	13.3
SMCJ75	GGQ	BGQ	75.0	83.30	1	5	134.0	11.2
SMCJ75A	GGR	BGR	75.0	83.30	1	5	121.0	12.4
SMCJ78	GGS	BGS	78.0	86.70	1	5	139.0	10.8
SMCJ78A	GGT	BGT	78.0	86.70	1	5	126.0	11.4
SMCJ85	GGU	BGU	85.0	94.40	1	5	151.0	9.9
SMCJ85A	GGV	BGV	85.0	94.40	1	5	137.0	10.4
SMCJ90	GGW	BGW	90.0	100.00	1	5	160.0	9.4
SMCJ90A	GGX	BGX	90.0	100.00	1	5	146.0	10.3

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

+ = For Bidirectional Types Having Vwm <= 10V, their Id limit is doubled.

= See General Information for Impulse Current Waveform.

TVS Diodes - Surface Mount - 1500 Watt Specifications - SMCJ 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)			
SMCJ100	GGY	BGY	100.0	111.00	1	5	179.0	8.4
SMCJ100A	GGZ	BGZ	100.0	111.0	1	5	162.0	9.3
SMCJ110	GHD	BHD	110.0	122.0	1	5	196.0	7.7
SMCJ110A	GHE	BHE	110.0	122.0	1	5	177.0	8.4
SMCJ120	GHF	BHF	120.0	133.0	1	5	214.0	7.0
SMCJ120A	GHG	BHG	120.0	133.0	1	5	193.0	7.9
SMCJ130	GHH	BHH	130.0	144.00	1	5	231.0	6.5
SMCJ130A	GHK	BHK	130.0	144.00	1	5	209.0	7.2
SMCJ150	GHL	BHL	150.0	167.00	1	5	268.0	5.6
SMCJ150A	GHM	BHM	150.0	167.00	1	5	243.0	6.2
SMCJ160	GHN	BHN	160.0	178.00	1	5	287.0	5.2
SMCJ160A	GHP	BHP	160.0	178.00	1	5	259.0	5.8
SMCJ170	GHQ	BHQ	170.0	189.00	1	5	304.0	4.9
SMCJ170A	GHR	BHR	170.0	189.00	1	5	275.0	5.5

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

+ = For Bidirectional Types Having Vwm <= 10V, their Id limit is doubled.

= See General Information for Impulse Current Waveform.

TVS Diodes - Surface Mount - 1500 Watt - SMCJ Series Features

SMCJ Series Features

- 1500 watt peak pulse power dissipation
- Available in voltages from 5.0V to 170V
- Unidirectional and bidirectional
- Glass passivated junction
- Low clamping factor
- Each device 100% surge tested

Absolute Maximum Ratings

- Peak pulse power dissipation (Pppm) at 25°C..... 1500W
- 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

