

TVS Diodes - Surface Mount - 1500 Watt Specifications - 1.5SMCJ Series Electrical Characteristics

| Part Number* | Uni Part Marking | Bi Part Marking | Rated Standoff Voltage V _{wm} (Volts) | Breakdown Voltage | | Maximum Stand By Current @V _{wm} + Id (μA) | 10/1000μs Maximum Clamping Voltage @I _{ppm} # V _c Max (Volts) | 10/1000μs Rated Peak Impulse Current I _{ppm} # (Amperes) |
|--------------|------------------|-----------------|--|-----------------------------|----------------------|---|---|---|
| | | | | V _{br} Min (Volts) | @I _t (mA) | | | |
| 1.5SMCJ5.0 | GDD | BDD | 5.0 | 6.40 | 10 | 1000 | 9.6 | 156.2 |
| 1.5SMCJ5.0A | GDE | BDE | 5.0 | 6.40 | 10 | 1000 | 9.2 | 163.0 |
| 1.5SMCJ6.0 | GDF | BDF | 6.0 | 6.67 | 10 | 1000 | 11.4 | 131.6 |
| 1.5SMCJ6.0A | GDG | BDG | 6.0 | 6.67 | 10 | 1000 | 10.3 | 145.6 |
| 1.5SMCJ6.5 | GDH | BDH | 6.5 | 7.22 | 10 | 500 | 12.3 | 122.0 |
| 1.5SMCJ6.5A | GDK | BDK | 6.5 | 7.22 | 10 | 500 | 11.2 | 133.9 |
| 1.5SMCJ7.0 | GDL | BDL | 7.0 | 7.78 | 10 | 200 | 13.3 | 112.8 |
| 1.5SMCJ7.0A | GDM | BDM | 7.0 | 7.78 | 10 | 200 | 12.0 | 125.0 |
| 1.5SMCJ7.5 | GDN | BDN | 7.5 | 8.33 | 1 | 100 | 14.3 | 104.9 |
| 1.5SMCJ7.5A | GDP | BDP | 7.5 | 8.33 | 1 | 100 | 12.9 | 116.3 |
| 1.5SMCJ8.0 | GDQ | BDQ | 8.0 | 8.89 | 1 | 50 | 15.0 | 100.0 |
| 1.5SMCJ8.0A | GDR | BDR | 8.0 | 8.89 | 1 | 50 | 13.6 | 110.3 |
| 1.5SMCJ8.5 | GDS | BDS | 8.5 | 9.44 | 1 | 25 | 15.9 | 94.3 |
| 1.5SMCJ8.5A | GDT | BDT | 8.5 | 9.44 | 1 | 20 | 14.4 | 104.2 |
| 1.5SMCJ9.0 | GDU | BDU | 9.0 | 10.00 | 1 | 10 | 16.9 | 88.7 |
| 1.5SMCJ9.0A | GDV | BDV | 9.0 | 10.00 | 1 | 10 | 15.4 | 97.4 |
| 1.5SMCJ10 | GDW | BDW | 10.0 | 11.10 | 1 | 5 | 18.8 | 79.8 |
| 1.5SMCJ10A | GDX | BDX | 10.0 | 11.10 | 1 | 5 | 17.0 | 88.2 |
| 1.5SMCJ11 | GDY | BDY | 11.0 | 12.20 | 1 | 5 | 20.1 | 74.6 |
| 1.5SMCJ11A | GDZ | BDZ | 11.0 | 12.20 | 1 | 5 | 18.2 | 82.4 |
| 1.5SMCJ12 | GED | BED | 12.0 | 13.30 | 1 | 5 | 22.0 | 68.2 |
| 1.5SMCJ12A | GEE | BEE | 12.0 | 13.30 | 1 | 5 | 19.9 | 75.3 |
| 1.5SMCJ13 | GEF | BEF | 13.0 | 14.40 | 1 | 5 | 23.8 | 63.0 |
| 1.5SMCJ13A | GEG | BEG | 13.0 | 14.40 | 1 | 5 | 21.5 | 69.7 |
| 1.5SMCJ14 | GEH | BEH | 14.0 | 15.60 | 1 | 5 | 25.8 | 58.1 |
| 1.5SMCJ14A | GEK | BEK | 14.0 | 15.60 | 1 | 5 | 23.2 | 64.7 |

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= See General Information for Impulse Current Waveform.

TVS Diodes - Surface Mount - 1500 Watt Specifications - 1.5SMCJ Series Electrical Characteristics - (Continued)

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|--------------|------------------|-----------------|---|--------------------------------|-------------------------|--|--|--|
| | | | | V _{br} Min (Volts) | @I _t (mA) | | | |
| 1.5SMCJ15 | GEL | BEL | 15.0 | 16.70 | 1 | 5 | 26.9 | 55.8 |
| 1.5SMCJ15A | GEM | BEM | 15.0 | 16.70 | 1 | 5 | 24.4 | 61.5 |
| 1.5SMCJ16 | GEN | BEN | 16.0 | 17.80 | 1 | 5 | 28.8 | 52.1 |
| 1.5SMCJ16A | GEP | BEP | 16.0 | 17.80 | 1 | 5 | 26.0 | 57.7 |
| 1.5SMCJ17 | GEQ | BEQ | 17.0 | 18.90 | 1 | 5 | 30.5 | 49.2 |
| 1.5SMCJ17A | GER | BER | 17.0 | 18.90 | 1 | 5 | 27.6 | 53.3 |
| 1.5SMCJ18 | GES | BES | 18.0 | 20.00 | 1 | 5 | 32.2 | 46.6 |
| 1.5SMCJ18A | GET | BET | 18.0 | 20.00 | 1 | 5 | 29.2 | 51.4 |
| 1.5SMCJ20 | GEU | BEU | 20.0 | 22.20 | 1 | 5 | 35.8 | 41.9 |
| 1.5SMCJ20A | GEV | BEV | 20.0 | 22.20 | 1 | 5 | 32.4 | 46.3 |
| 1.5SMCJ22 | GEW | BEW | 22.0 | 24.40 | 1 | 5 | 39.4 | 38.1 |
| 1.5SMCJ22A | GEX | BEX | 22.0 | 24.40 | 1 | 5 | 35.5 | 42.2 |
| 1.5SMCJ24 | GEY | BEY | 24.0 | 26.70 | 1 | 5 | 43.0 | 34.9 |
| 1.5SMCJ24A | GEZ | BEZ | 24.0 | 26.70 | 1 | 5 | 38.9 | 38.6 |
| 1.5SMCJ26 | GFD | BFD | 26.0 | 28.90 | 1 | 5 | 46.6 | 32.2 |
| 1.5SMCJ26A | GFE | BFE | 26.0 | 28.90 | 1 | 5 | 42.1 | 35.6 |
| 1.5SMCJ28 | GFF | BFF | 28.0 | 31.10 | 1 | 5 | 50.0 | 30.0 |
| 1.5SMCJ28A | GFG | BFG | 28.0 | 31.10 | 1 | 5 | 45.4 | 33.0 |
| 1.5SMCJ30 | GFH | BFH | 30.0 | 33.30 | 1 | 5 | 53.5 | 28.0 |
| 1.5SMCJ30A | GFK | BFK | 30.0 | 33.30 | 1 | 5 | 48.4 | 31.0 |
| 1.5SMCJ33 | GFL | BFL | 33.0 | 36.70 | 1 | 5 | 59.0 | 25.2 |
| 1.5SMCJ33A | GFM | BFM | 33.0 | 36.70 | 1 | 5 | 53.3 | 28.1 |
| 1.5SMCJ36 | GFN | BFN | 36.0 | 40.00 | 1 | 5 | 64.3 | 23.3 |
| 1.5SMCJ36A | GFP | BFP | 36.0 | 40.00 | 1 | 5 | 58.1 | 25.8 |
| 1.5SMCJ40 | GFQ | BFQ | 40.0 | 44.40 | 1 | 5 | 71.4 | 21.0 |
| 1.5SMCJ40A | GFR | BFR | 40.0 | 44.40 | 1 | 5 | 64.5 | 23.2 |

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|--------------|------------------|-----------------|---|--------------------------------|-------------------------|--|---|--|
| | | | | V _{br} Min (Volts) | @I _t (mA) | | | |
| 1.5SMCJ43 | GFS | BFS | 43.0 | 47.80 | 1 | 5 | 76.7 | 19.6 |
| 1.5SMCJ43A | GFT | BFT | 43.0 | 47.80 | 1 | 5 | 69.4 | 21.6 |
| 1.5SMCJ45 | GFU | BFU | 45.0 | 50.00 | 1 | 5 | 80.3 | 18.7 |
| 1.5SMCJ45A | GFV | BFV | 45.0 | 50.00 | 1 | 5 | 72.7 | 20.6 |
| 1.5SMCJ48 | GFW | BFW | 48.0 | 53.30 | 1 | 5 | 85.5 | 17.5 |
| 1.5SMCJ48A | GFX | BFX | 48.0 | 53.30 | 1 | 5 | 77.4 | 19.4 |
| 1.5SMCJ51 | GFY | BFY | 51.0 | 56.70 | 1 | 5 | 91.1 | 18.5 |
| 1.5SMCJ51A | GFZ | BFZ | 51.0 | 56.70 | 1 | 5 | 82.4 | 18.2 |
| 1.5SMCJ54 | GGD | BGD | 54.0 | 60.00 | 1 | 5 | 96.3 | 15.6 |
| 1.5SMCJ54A | GGE | BGE | 54.0 | 60.00 | 1 | 5 | 87.1 | 17.2 |
| 1.5SMCJ58 | GGF | BGF | 58.0 | 64.40 | 1 | 5 | 103.0 | 14.6 |
| 1.5SMCJ58A | GGG | BGG | 58.0 | 64.40 | 1 | 5 | 93.6 | 16.0 |
| 1.5SMCJ60 | GGH | BGH | 60.0 | 66.70 | 1 | 5 | 107.0 | 14.0 |
| 1.5SMCJ60A | GGK | BGK | 60.0 | 66.70 | 1 | 5 | 96.8 | 15.5 |
| 1.5SMCJ64 | GGL | BGL | 64.0 | 71.10 | 1 | 5 | 114.0 | 13.2 |
| 1.5SMCJ64A | GGM | BGM | 64.0 | 71.10 | 1 | 5 | 103.0 | 14.6 |
| 1.5SMCJ70 | GGN | BGN | 70.0 | 77.80 | 1 | 5 | 125.0 | 12.0 |
| 1.5SMCJ70A | GGP | BGP | 70.0 | 77.80 | 1 | 5 | 113.0 | 13.3 |
| 1.5SMCJ75 | GGQ | BGQ | 75.0 | 83.30 | 1 | 5 | 134.0 | 11.2 |
| 1.5SMCJ75A | GGR | BGR | 75.0 | 83.30 | 1 | 5 | 121.0 | 12.4 |
| 1.5SMCJ78 | GGS | BGS | 78.0 | 86.70 | 1 | 5 | 139.0 | 10.8 |
| 1.5SMCJ78A | GGT | BGT | 78.0 | 86.70 | 1 | 5 | 126.0 | 11.4 |
| 1.5SMCJ85 | GGU | BGU | 85.0 | 94.40 | 1 | 5 | 151.0 | 9.9 |
| 1.5SMCJ85A | GGV | BGV | 85.0 | 94.40 | 1 | 5 | 137.0 | 10.4 |
| 1.5SMCJ90 | GGW | BGW | 90.0 | 100.00 | 1 | 5 | 160.0 | 9.4 |
| 1.5SMCJ90A | GGX | BGX | 90.0 | 100.00 | 1 | 5 | 146.0 | 10.3 |

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|--------------|------------------|-----------------|---|--------------------------------|-------------------------|--|---|--|
| | | | | V _{br} Min (Volts) | @I _t (mA) | | | |
| 1.5SMCJ100 | GGY | BGY | 100.0 | 111.00 | 1 | 5 | 179.0 | 8.4 |
| 1.5SMCJ100A | GGZ | BGZ | 100.0 | 111.0 | 1 | 5 | 162.0 | 9.3 |
| 1.5SMCJ110 | GHD | BHD | 110.0 | 122.0 | 1 | 5 | 196.0 | 7.7 |
| 1.5SMCJ110A | GHE | BHE | 110.0 | 122.0 | 1 | 5 | 177.0 | 8.4 |
| 1.5SMCJ120 | GHF | BHF | 120.0 | 133.0 | 1 | 5 | 214.0 | 7.0 |
| 1.5SMCJ120A | GHG | BHG | 120.0 | 133.0 | 1 | 5 | 193.0 | 7.9 |
| 1.5SMCJ130 | GHH | BHH | 130.0 | 144.00 | 1 | 5 | 231.0 | 6.5 |
| 1.5SMCJ130A | GHK | BHK | 130.0 | 144.00 | 1 | 5 | 209.0 | 7.2 |
| 1.5SMCJ150 | GHL | BHL | 150.0 | 167.00 | 1 | 5 | 268.0 | 5.6 |
| 1.5SMCJ150A | GHM | BHM | 150.0 | 167.00 | 1 | 5 | 243.0 | 6.2 |
| 1.5SMCJ160 | GHN | BHN | 160.0 | 178.00 | 1 | 5 | 287.0 | 5.2 |
| 1.5SMCJ160A | GHP | BHP | 160.0 | 178.00 | 1 | 5 | 259.0 | 5.8 |
| 1.5SMCJ170 | GHQ | BHQ | 170.0 | 189.00 | 1 | 5 | 304.0 | 4.9 |
| 1.5SMCJ170A | GHR | BHR | 170.0 | 189.00 | 1 | 5 | 275.0 | 5.5 |

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TVS Diodes - Surface Mount - 1500 Watt - 1.5SMCJ Series Features

1.5SMCJ 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
- 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..... 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

