

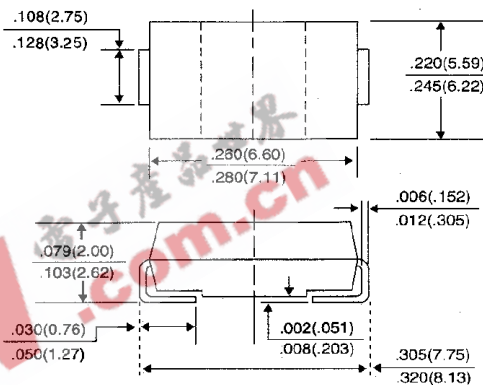
## 1.5SMCJ SERIES

### SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR VOLTAGE – 5.0-170 Volts Peak Pulse Power-1500 Watts

#### FEATURES

- For surface mounted applications in order to optimize board space
- Low profile package
- Built-in strain relief
- Glass passivated junction
- Excellent clamping capability
- Low inductance
- Repetition Rate (duty cycle): 0.05%
- Fast response time: typically less than 1.0ps from 0 volts to BV min.
- Typical  $I_b$  less than  $1\mu A$  above 10V
- High temperature soldering:  
260°C/10 seconds at terminals
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O

#### SMC/DO-214AB



Dimensions in inches and (millimeters)

#### MECHANICAL DATA

Case: JEDEC DO-214AB molded plastic over passivated junction  
 Terminals: Solder plated, solderable per MIL-STD-750, Method 2026  
 Polarity: Color band denotes positive end (cathode) except bi-directional types  
 Standard Packaging: 16mm tape (EIA-481)  
 Weight: .007 ounces, 0.21 gram

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

|  | SYMBOLS        | VALUE        | UNITS |
|--|----------------|--------------|-------|
| Peak Pulse Power Dissipation on 10/1000 $\mu s$ waveform (Notes 1, 2, Fig. 1)                                | $P_{PPM}$      | Minimum 1500 | Watts |
| Peak Pulse Current on 10/1000 $\mu s$ waveform (Note 1, Fig. 3)  | $I_{PPM}$      | See Table 1  | Amps  |
| Peak forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) (NOTES 2,3) | $I_{FSM}$      | 100.0        | Amps  |
| Operating Junction and Storage Temperature Range   | $T_J, T_{STG}$ | -55 to +150  | °C    |

#### NOTES:

1. Non-repetitive current pulse, per Fig.3 and derated above  $T_A = 25^\circ C$  per Fig. 2.
2. Mounted on 8.0mm<sup>2</sup> copper pads to each terminal.
3. 8.3ms single half sine-wave, or equivalent square wave, duty cycle = 4 pulses per minutes maximum.

## RATING AND CHARACTERISTIC CURVES 1.5SMCJ SERIES

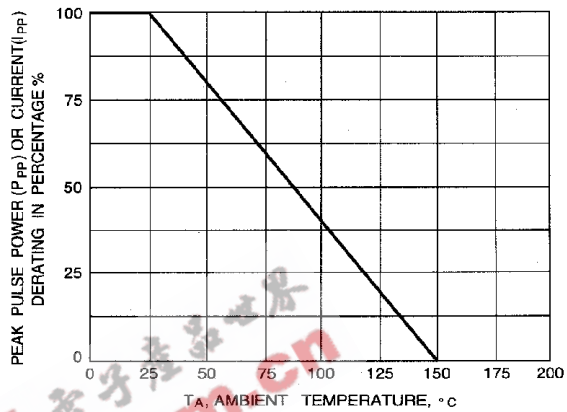
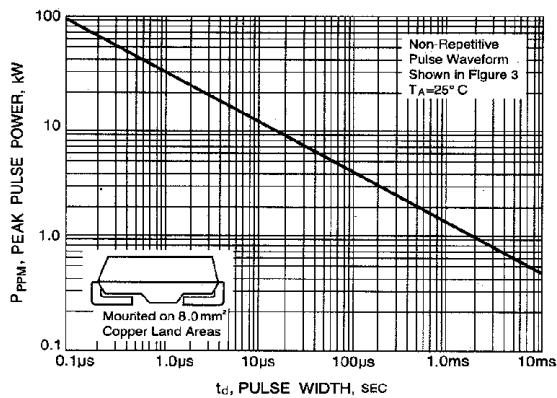


FIG. 2-PULSE RATING CURVE

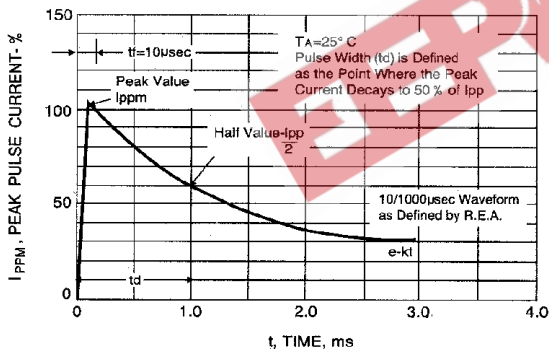


FIG. 3-PULSE WAVEFORM

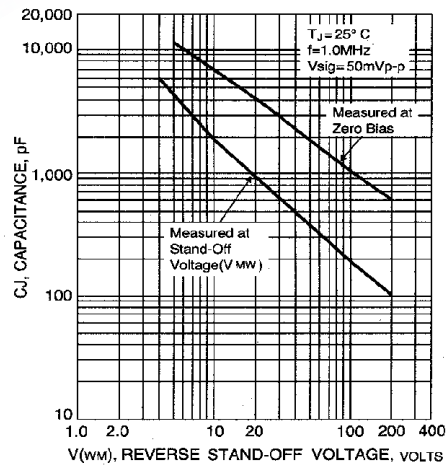


FIG. 4-TYPICAL JUNCTION CAPACITANCE

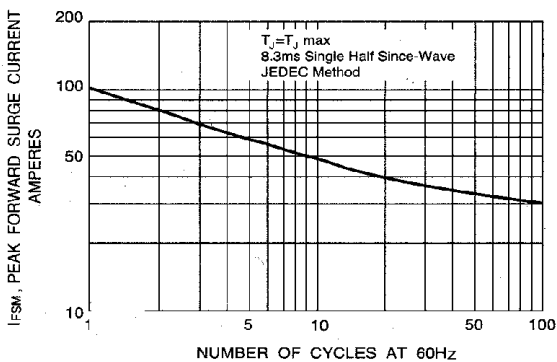


FIG. 5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



### UNI-DIRECTIONAL 1500 Watt Surface Mount TVS

| UNI-DIRECTIONAL PART NUMBER | 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) |
|-----------------------------|---------------------|------------------------------------|-------------------------------------|-------------------------------------|----------------------|--------------------------------------|----------------------------|-------------------------------|
| 1.5SMCJ5.0                  | GDD                 | 5.0                                | 6.40                                | 7.55                                | 10                   | 9.6                                  | 156.2                      | 1000                          |
| 1.5SMCJ5.0A                 | GDE                 | 5.0                                | 6.40                                | 7.25                                | 10                   | 9.2                                  | 163.0                      | 1000                          |
| 1.5SMCJ6.0                  | GDF                 | 6.0                                | 6.67                                | 8.45                                | 10                   | 11.4                                 | 131.6                      | 1000                          |
| 1.5SMCJ6.0A                 | GDG                 | 6.0                                | 6.67                                | 7.67                                | 10                   | 10.3                                 | 145.6                      | 1000                          |
| 1.5SMCJ6.5                  | GDH                 | 6.5                                | 7.22                                | 9.14                                | 10                   | 12.3                                 | 122.0                      | 500                           |
| 1.5SMCJ6.5A                 | GDK                 | 6.5                                | 7.22                                | 8.30                                | 10                   | 11.2                                 | 133.9                      | 500                           |
| 1.5SMCJ7.0                  | CDL                 | 7.0                                | 7.78                                | 9.86                                | 10                   | 13.3                                 | 112.8                      | 200                           |
| 1.5SMCJ7.0A                 | GDM                 | 7.0                                | 7.78                                | 8.95                                | 10                   | 12.0                                 | 125.0                      | 200                           |
| 1.5SMCJ7.5                  | GDN                 | 7.5                                | 8.33                                | 10.67                               | 1                    | 14.3                                 | 104.9                      | 100                           |
| 1.5SMCJ7.5A                 | GDP                 | 7.5                                | 8.33                                | 9.58                                | 1                    | 12.9                                 | 116.3                      | 100                           |
| 1.5SMCJ8.0                  | GDO                 | 8.0                                | 8.89                                | 11.30                               | 1                    | 15.0                                 | 100.0                      | 50                            |
| 1.5SMCJ8.0A                 | GDR                 | 8.0                                | 8.89                                | 10.23                               | 1                    | 13.6                                 | 110.3                      | 50                            |
| 1.5SMCJ8.5                  | GDS                 | 8.5                                | 9.44                                | 11.92                               | 1                    | 15.9                                 | 94.3                       | 25                            |
| 1.5SMCJ8.5A                 | GDT                 | 8.5                                | 9.44                                | 10.82                               | 1                    | 14.4                                 | 104.2                      | 20                            |
| 1.5SMCJ9.0                  | GDU                 | 9.0                                | 10.00                               | 12.60                               | 1                    | 16.9                                 | 88.7                       | 10                            |
| 1.5SMCJ9.0A                 | GDV                 | 9.0                                | 10.00                               | 11.50                               | 1                    | 15.4                                 | 97.4                       | 10                            |
| 1.5SMCJ10                   | GDW                 | 10.0                               | 11.10                               | 14.10                               | 1                    | 18.8                                 | 79.8                       | 5                             |
| 1.5SMCJ10A                  | GDX                 | 10.0                               | 11.10                               | 12.80                               | 1                    | 17.0                                 | 88.2                       | 5                             |
| 1.5SMCJ11                   | GDY                 | 11.0                               | 12.20                               | 15.40                               | 1                    | 20.1                                 | 74.6                       | 5                             |
| 1.5SMCJ11A                  | GDZ                 | 11.0                               | 12.20                               | 14.00                               | 1                    | 18.2                                 | 82.4                       | 5                             |
| 1.5SMCJ12                   | GED                 | 12.0                               | 13.30                               | 16.90                               | 1                    | 22.0                                 | 68.2                       | 5                             |
| 1.5SMCJ12A                  | GEE                 | 12.0                               | 13.30                               | 15.30                               | 1                    | 19.9                                 | 75.3                       | 5                             |
| 1.5SMCJ13                   | GEF                 | 13.0                               | 14.40                               | 18.20                               | 1                    | 23.8                                 | 63.0                       | 5                             |
| 1.5SMCJ13A                  | GEG                 | 13.0                               | 14.40                               | 16.50                               | 1                    | 21.5                                 | 69.7                       | 5                             |
| 1.5SMCJ14                   | GEH                 | 14.0                               | 15.60                               | 19.80                               | 1                    | 25.8                                 | 58.7                       | 5                             |
| 1.5SMCJ14A                  | GEK                 | 14.0                               | 15.60                               | 17.90                               | 1                    | 23.2                                 | 64.7                       | 5                             |
| 1.5SMCJ15                   | GEL                 | 15.0                               | 16.70                               | 21.10                               | 1                    | 29.9                                 | 55.8                       | 5                             |
| 1.5SMCJ15A                  | GEM                 | 15.0                               | 16.70                               | 19.20                               | 1                    | 24.4                                 | 61.5                       | 5                             |
| 1.5SMCJ16                   | GEN                 | 16.0                               | 17.80                               | 22.60                               | 1                    | 28.4                                 | 52.1                       | 5                             |
| 1.5SMCJ16A                  | GEP                 | 16.0                               | 17.80                               | 20.50                               | 1                    | 26.0                                 | 57.7                       | 5                             |
| 1.5SMCJ17                   | GEQ                 | 17.0                               | 18.90                               | 23.90                               | 1                    | 30.5                                 | 49.2                       | 5                             |
| 1.5SMCJ17A                  | GER                 | 17.0                               | 18.90                               | 21.70                               | 1                    | 27.6                                 | 53.3                       | 5                             |
| 1.5SMCJ18                   | GES                 | 18.0                               | 20.00                               | 25.30                               | 1                    | 32.2                                 | 46.6                       | 5                             |
| 1.5SMCJ18A                  | GET                 | 18.0                               | 20.00                               | 23.30                               | 1                    | 29.2                                 | 51.4                       | 5                             |
| 1.5SMCJ20                   | GEU                 | 20.0                               | 22.20                               | 28.10                               | 1                    | 35.8                                 | 41.9                       | 5                             |
| 1.5SMCJ20A                  | GEV                 | 20.0                               | 22.20                               | 25.50                               | 1                    | 32.4                                 | 46.3                       | 5                             |
| 1.5SMCJ22                   | GEW                 | 22.0                               | 24.40                               | 30.90                               | 1                    | 39.4                                 | 38.1                       | 5                             |
| 1.5SMCJ22A                  | GEX                 | 22.0                               | 24.40                               | 28.00                               | 1                    | 35.5                                 | 42.2                       | 5                             |
| 1.5SMCJ24                   | GEY                 | 24.0                               | 26.70                               | 33.80                               | 1                    | 43.0                                 | 34.9                       | 5                             |
| 1.5SMCJ24A                  | GEZ                 | 24.0                               | 26.70                               | 30.70                               | 1                    | 38.9                                 | 38.8                       | 5                             |
| 1.5SMCJ26                   | GFD                 | 26.0                               | 28.90                               | 36.60                               | 1                    | 46.6                                 | 32.2                       | 5                             |
| 1.5SMCJ26A                  | GFE                 | 26.0                               | 28.90                               | 33.20                               | 1                    | 42.1                                 | 35.6                       | 5                             |
| 1.5SMCJ28                   | GFF                 | 28.0                               | 31.10                               | 39.40                               | 1                    | 50.0                                 | 30.0                       | 5                             |
| 1.5SMCJ28A                  | GFG                 | 28.0                               | 31.10                               | 35.80                               | 1                    | 45.4                                 | 33.0                       | 5                             |
| 1.5SMCJ30                   | GFH                 | 30.0                               | 33.30                               | 42.20                               | 1                    | 53.5                                 | 28.0                       | 5                             |
| 1.5SMCJ30A                  | GFK                 | 30.0                               | 33.30                               | 38.30                               | 1                    | 48.4                                 | 31.0                       | 5                             |
| 1.5SMCJ33                   | GFL                 | 33.0                               | 36.70                               | 46.50                               | 1                    | 59.0                                 | 25.2                       | 5                             |
| 1.5SMCJ33A                  | GFM                 | 33.0                               | 36.70                               | 42.20                               | 1                    | 53.3                                 | 28.1                       | 5                             |
| 1.5SMCJ36                   | GFN                 | 36.0                               | 40.00                               | 50.70                               | 1                    | 64.3                                 | 23.3                       | 5                             |
| 1.5SMCJ36A                  | GFP                 | 36.0                               | 40.00                               | 46.00                               | 1                    | 58.1                                 | 25.8                       | 5                             |
| 1.5SMCJ40                   | GFQ                 | 40.0                               | 44.40                               | 56.30                               | 1                    | 71.4                                 | 21.0                       | 5                             |
| 1.5SMCJ40A                  | GFR                 | 40.0                               | 44.40                               | 51.10                               | 1                    | 64.5                                 | 23.2                       | 5                             |
| 1.5SMCJ43                   | GFS                 | 43.0                               | 47.80                               | 60.50                               | 1                    | 76.7                                 | 19.6                       | 5                             |
| 1.5SMCJ43A                  | GFT                 | 43.0                               | 47.80                               | 54.90                               | 1                    | 69.4                                 | 21.6                       | 5                             |
| 1.5SMCJ45                   | GFU                 | 45.0                               | 50.00                               | 63.30                               | 1                    | 80.3                                 | 18.7                       | 5                             |
| 1.5SMCJ45A                  | GFV                 | 45.0                               | 50.00                               | 57.50                               | 1                    | 72.7                                 | 20.6                       | 5                             |
| 1.5SMCJ48                   | GFW                 | 48.0                               | 53.30                               | 67.50                               | 1                    | 85.5                                 | 17.5                       | 5                             |
| 1.5SMCJ48A                  | GFX                 | 48.0                               | 53.30                               | 61.30                               | 1                    | 77.4                                 | 19.4                       | 5                             |
| 1.5SMCJ51                   | GFY                 | 51.0                               | 56.70                               | 71.80                               | 1                    | 91.1                                 | 15.5                       | 5                             |
| 1.5SMCJ51A                  | GFZ                 | 51.0                               | 56.70                               | 65.20                               | 1                    | 82.4                                 | 18.2                       | 5                             |
| 1.5SMCJ54                   | GGD                 | 54.0                               | 60.00                               | 76.00                               | 1                    | 96.3                                 | 15.6                       | 5                             |
| 1.5SMCJ54A                  | GGE                 | 54.0                               | 60.00                               | 69.00                               | 1                    | 87.1                                 | 17.2                       | 5                             |
| 1.5SMCJ58                   | GGF                 | 58.0                               | 64.40                               | 81.60                               | 1                    | 103.0                                | 14.6                       | 5                             |
| 1.5SMCJ58A                  | GGG                 | 58.0                               | 64.40                               | 74.10                               | 1                    | 93.6                                 | 16.0                       | 5                             |
| 1.5SMCJ60                   | GGH                 | 60.0                               | 66.70                               | 84.50                               | 1                    | 107.0                                | 14.0                       | 5                             |
| 1.5SMCJ60A                  | GGK                 | 60.0                               | 66.70                               | 76.70                               | 1                    | 96.8                                 | 15.5                       | 5                             |
| 1.5SMCJ64                   | GGL                 | 64.0                               | 71.10                               | 90.10                               | 1                    | 114.0                                | 13.2                       | 5                             |
| 1.5SMCJ64A                  | GGM                 | 64.0                               | 71.10                               | 81.80                               | 1                    | 103.0                                | 14.6                       | 5                             |
| 1.5SMCJ70                   | GGN                 | 70.0                               | 77.80                               | 98.60                               | 1                    | 125.0                                | 12.0                       | 5                             |
| 1.5SMCJ70A                  | GGP                 | 70.0                               | 77.80                               | 89.50                               | 1                    | 115.0                                | 13.3                       | 5                             |
| 1.5SMCJ75                   | GGQ                 | 75.0                               | 83.30                               | 105.70                              | 1                    | 134.0                                | 11.2                       | 5                             |
| 1.5SMCJ75A                  | GGR                 | 75.0                               | 83.30                               | 95.80                               | 1                    | 121.0                                | 12.4                       | 5                             |
| 1.5SMCJ78                   | GGS                 | 78.0                               | 86.70                               | 109.80                              | 1                    | 139.0                                | 10.8                       | 5                             |
| 1.5SMCJ78A                  | GGT                 | 78.0                               | 86.70                               | 99.70                               | 1                    | 126.0                                | 11.4                       | 5                             |
| 1.5SMCJ85                   | GGU                 | 85.0                               | 94.40                               | 119.20                              | 1                    | 151.0                                | 9.9                        | 5                             |
| 1.5SMCJ85A                  | GGV                 | 85.0                               | 94.40                               | 108.20                              | 1                    | 137.0                                | 10.4                       | 5                             |
| 1.5SMCJ90                   | GGW                 | 90.0                               | 100.00                              | 126.50                              | 1                    | 160.0                                | 9.4                        | 5                             |
| 1.5SMCJ90A                  | GGX                 | 90.0                               | 100.00                              | 115.50                              | 1                    | 146.0                                | 10.3                       | 5                             |
| 1.5SMCJ100                  | GGY                 | 100.0                              | 111.00                              | 141.00                              | 1                    | 179.0                                | 8.4                        | 5                             |
| 1.5SMCJ100A                 | GGZ                 | 100.0                              | 111.00                              | 128.00                              | 1                    | 162.0                                | 9.3                        | 5                             |
| 1.5SMCJ110                  | GHD                 | 110.0                              | 122.00                              | 154.50                              | 1                    | 196.0                                | 7.7                        | 5                             |
| 1.5SMCJ110A                 | GHE                 | 110.0                              | 122.00                              | 140.50                              | 1                    | 177.0                                | 8.4                        | 5                             |
| 1.5SMCJ120                  | GHF                 | 120.0                              | 133.00                              | 169.00                              | 1                    | 214.0                                | 7.0                        | 5                             |
| 1.5SMCJ120A                 | GHG                 | 120.0                              | 133.00                              | 153.00                              | 1                    | 193.0                                | 7.9                        | 5                             |
| 1.5SMCJ130                  | GHH                 | 130.0                              | 144.00                              | 182.50                              | 1                    | 231.0                                | 6.5                        | 5                             |
| 1.5SMCJ130A                 | GHK                 | 130.0                              | 144.00                              | 165.50                              | 1                    | 209.0                                | 7.2                        | 5                             |
| 1.5SMCJ150                  | GHL                 | 150.0                              | 167.00                              | 211.50                              | 1                    | 268.0                                | 5.6                        | 5                             |
| 1.5SMCJ150A                 | GHM                 | 150.0                              | 167.00                              | 192.50                              | 1                    | 243.0                                | 6.2                        | 5                             |
| 1.5SMCJ160                  | GHN                 | 160.0                              | 178.00                              | 226.00                              | 1                    | 287.0                                | 5.2                        | 5                             |
| 1.5SMCJ160A                 | GHP                 | 160.0                              | 178.00                              | 205.00                              | 1                    | 259.0                                | 5.8                        | 5                             |
| 1.5SMCJ170                  | GHQ                 | 170.0                              | 189.00                              | 239.50                              | 1                    | 304.0                                | 4.9                        | 5                             |
| 1.5SMCJ170A                 | GHR                 | 170.0                              | 189.00                              | 217.50                              | 1                    | 275.0                                | 5.5                        | 5                             |



### BI-DIRECTIONAL 1500 Watt Surface Mount TVS

| BI-DIRECTIONAL PART NUMBER | 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) |
|----------------------------|---------------------|------------------------------------|-------------------------------------|-------------------------------------|----------------------|--------------------------------------|----------------------------|-------------------------------|
| 1.5SMCJ5.0C                | BDD                 | 5.0                                | 6.40                                | 7.55                                | 10                   | 9.6                                  | 156.2                      | 2000                          |
| 1.5SMCJ5.0CA               | BDE                 | 5.0                                | 6.40                                | 7.25                                | 10                   | 9.2                                  | 163.0                      | 2000                          |
| 1.5SMCJ6.0C                | BDF                 | 6.0                                | 6.67                                | 8.45                                | 10                   | 11.4                                 | 131.6                      | 2000                          |
| 1.5SMCJ6.0CA               | BDG                 | 6.0                                | 6.67                                | 7.67                                | 10                   | 10.3                                 | 145.6                      | 2000                          |
| 1.5SMCJ6.5C                | BDH                 | 6.5                                | 7.22                                | 9.14                                | 10                   | 12.3                                 | 122.0                      | 1000                          |
| 1.5SMCJ6.5CA               | BDK                 | 6.5                                | 7.22                                | 8.30                                | 10                   | 11.2                                 | 133.9                      | 1000                          |
| 1.5SMCJ7.0C                | BDL                 | 7.0                                | 7.78                                | 9.86                                | 10                   | 13.3                                 | 112.8                      | 400                           |
| 1.5SMCJ7.0CA               | BDM                 | 7.0                                | 7.78                                | 8.95                                | 10                   | 12.0                                 | 125.0                      | 400                           |
| 1.5SMCJ7.5C                | BDN                 | 7.5                                | 8.33                                | 10.67                               | 1                    | 14.3                                 | 104.9                      | 200                           |
| 1.5SMCJ7.5CA               | BDP                 | 7.5                                | 8.33                                | 9.58                                | 1                    | 12.9                                 | 116.3                      | 200                           |
| 1.5SMCJ8.0C                | BDQ                 | 8.0                                | 8.89                                | 11.30                               | 1                    | 15.0                                 | 100.0                      | 100                           |
| 1.5SMCJ8.0CA               | BDR                 | 8.0                                | 8.89                                | 10.23                               | 1                    | 13.6                                 | 110.3                      | 100                           |
| 1.5SMCJ8.5C                | BDS                 | 8.5                                | 9.44                                | 11.92                               | 1                    | 15.9                                 | 94.3                       | 50                            |
| 1.5SMCJ8.5CA               | BDT                 | 8.5                                | 9.44                                | 10.82                               | 1                    | 14.4                                 | 104.2                      | 50                            |
| 1.5SMCJ9.0C                | BDU                 | 9.0                                | 10.00                               | 12.60                               | 1                    | 16.9                                 | 88.7                       | 20                            |
| 1.5SMCJ9.0CA               | BDV                 | 9.0                                | 10.00                               | 11.50                               | 1                    | 15.4                                 | 97.4                       | 20                            |
| 1.5SMCJ10C                 | BDW                 | 10.0                               | 11.10                               | 14.10                               | 1                    | 18.8                                 | 79.8                       | 5                             |
| 1.5SMCJ10CA                | BDX                 | 10.0                               | 11.10                               | 12.80                               | 1                    | 17.0                                 | 88.2                       | 5                             |
| 1.5SMCJ11C                 | BDY                 | 11.0                               | 12.20                               | 15.40                               | 1                    | 20.1                                 | 74.6                       | 5                             |
| 1.5SMCJ11CA                | BDZ                 | 11.0                               | 12.20                               | 14.00                               | 1                    | 18.2                                 | 82.4                       | 5                             |
| 1.5SMCJ12C                 | BED                 | 12.0                               | 13.30                               | 16.90                               | 1                    | 22.0                                 | 66.2                       | 5                             |
| 1.5SMCJ12CA                | BEE                 | 12.0                               | 13.30                               | 15.30                               | 1                    | 19.9                                 | 75.3                       | 5                             |
| 1.5SMCJ13C                 | BEF                 | 13.0                               | 14.40                               | 18.20                               | 1                    | 23.8                                 | 63.0                       | 5                             |
| 1.5SMCJ13CA                | BEG                 | 13.0                               | 14.40                               | 16.50                               | 1                    | 21.5                                 | 69.7                       | 5                             |
| 1.5SMCJ14C                 | BEH                 | 14.0                               | 15.60                               | 19.80                               | 1                    | 25.8                                 | 58.1                       | 5                             |
| 1.5SMCJ14CA                | BEK                 | 14.0                               | 15.60                               | 17.90                               | 1                    | 23.2                                 | 64.7                       | 5                             |
| 1.5SMCJ15C                 | BEL                 | 15.0                               | 16.70                               | 21.10                               | 1                    | 26.9                                 | 55.8                       | 5                             |
| 1.5SMCJ15CA                | BEM                 | 15.0                               | 16.70                               | 19.20                               | 1                    | 24.4                                 | 61.5                       | 5                             |
| 1.5SMCJ16C                 | BEN                 | 16.0                               | 17.80                               | 22.60                               | 1                    | 28.8                                 | 52.1                       | 5                             |
| 1.5SMCJ16CA                | BEP                 | 16.0                               | 17.80                               | 20.50                               | 1                    | 26.0                                 | 57.7                       | 5                             |
| 1.5SMCJ17C                 | BEQ                 | 17.0                               | 18.90                               | 23.90                               | 1                    | 30.5                                 | 49.2                       | 5                             |
| 1.5SMCJ17CA                | BER                 | 17.0                               | 18.90                               | 21.70                               | 1                    | 27.6                                 | 53.3                       | 5                             |
| 1.5SMCJ18C                 | BES                 | 18.0                               | 20.00                               | 25.30                               | 1                    | 32.2                                 | 46.6                       | 5                             |
| 1.5SMCJ18CA                | BET                 | 18.0                               | 20.00                               | 23.30                               | 1                    | 29.2                                 | 51.4                       | 5                             |
| 1.5SMCJ20C                 | BEU                 | 20.0                               | 22.20                               | 28.10                               | 1                    | 35.8                                 | 41.9                       | 5                             |
| 1.5SMCJ20CA                | BEV                 | 20.0                               | 22.20                               | 25.50                               | 1                    | 32.4                                 | 46.3                       | 5                             |
| 1.5SMCJ22C                 | BEW                 | 22.0                               | 24.40                               | 30.90                               | 1                    | 39.4                                 | 38.1                       | 5                             |
| 1.5SMCJ22CA                | BFX                 | 22.0                               | 24.40                               | 28.00                               | 1                    | 35.5                                 | 42.2                       | 5                             |
| 1.5SMCJ24C                 | BEY                 | 24.0                               | 26.70                               | 33.80                               | 1                    | 43.0                                 | 34.9                       | 5                             |
| 1.5SMCJ24CA                | BEZ                 | 24.0                               | 26.70                               | 30.70                               | 1                    | 38.9                                 | 38.6                       | 5                             |
| 1.5SMCJ26C                 | BFD                 | 26.0                               | 28.90                               | 36.60                               | 1                    | 46.6                                 | 32.2                       | 5                             |
| 1.5SMCJ26CA                | BFE                 | 26.0                               | 28.90                               | 33.20                               | 1                    | 42.1                                 | 35.6                       | 5                             |
| 1.5SMCJ28C                 | BFF                 | 28.0                               | 31.10                               | 39.40                               | 1                    | 50.0                                 | 30.0                       | 5                             |
| 1.5SMCJ28CA                | BFG                 | 28.0                               | 31.10                               | 35.80                               | 1                    | 45.4                                 | 33.0                       | 5                             |
| 1.5SMCJ30C                 | BFH                 | 30.0                               | 33.30                               | 42.20                               | 1                    | 53.5                                 | 28.0                       | 5                             |
| 1.5SMCJ30CA                | BFK                 | 30.0                               | 33.30                               | 38.30                               | 1                    | 48.4                                 | 31.0                       | 5                             |
| 1.5SMCJ33C                 | BFL                 | 33.0                               | 36.70                               | 46.50                               | 1                    | 59.0                                 | 25.2                       | 5                             |
| 1.5SMCJ33CA                | BFM                 | 33.0                               | 36.70                               | 42.20                               | 1                    | 53.3                                 | 28.1                       | 5                             |
| 1.5SMCJ36C                 | BFN                 | 36.0                               | 40.00                               | 50.70                               | 1                    | 64.3                                 | 23.3                       | 5                             |
| 1.5SMCJ36CA                | BFP                 | 36.0                               | 40.00                               | 46.00                               | 1                    | 58.1                                 | 25.8                       | 5                             |
| 1.5SMCJ40C                 | BFQ                 | 40.0                               | 44.40                               | 56.30                               | 1                    | 71.4                                 | 21.0                       | 5                             |
| 1.5SMCJ40CA                | BFR                 | 40.0                               | 44.40                               | 51.10                               | 1                    | 64.5                                 | 23.2                       | 5                             |
| 1.5SMCJ43C                 | BFS                 | 43.0                               | 47.80                               | 60.50                               | 1                    | 76.7                                 | 19.6                       | 5                             |
| 1.5SMCJ43CA                | BFT                 | 43.0                               | 47.80                               | 54.90                               | 1                    | 69.4                                 | 21.6                       | 5                             |
| 1.5SMCJ45C                 | BFU                 | 45.0                               | 50.00                               | 63.30                               | 1                    | 80.3                                 | 18.7                       | 5                             |
| 1.5SMCJ45CA                | BFV                 | 45.0                               | 50.00                               | 57.50                               | 1                    | 72.7                                 | 20.6                       | 5                             |
| 1.5SMCJ48C                 | BFW                 | 48.0                               | 53.30                               | 67.50                               | 1                    | 85.5                                 | 17.5                       | 5                             |
| 1.5SMCJ48CA                | BFX                 | 48.0                               | 53.30                               | 61.30                               | 1                    | 77.4                                 | 19.4                       | 5                             |
| 1.5SMCJ51C                 | BFY                 | 51.0                               | 56.70                               | 71.80                               | 1                    | 91.1                                 | 18.5                       | 5                             |
| 1.5SMCJ51CA                | BFZ                 | 51.0                               | 56.70                               | 65.20                               | 1                    | 82.4                                 | 18.2                       | 5                             |
| 1.5SMCJ54C                 | BGD                 | 54.0                               | 60.00                               | 76.00                               | 1                    | 96.3                                 | 15.6                       | 5                             |
| 1.5SMCJ54CA                | BGE                 | 54.0                               | 60.00                               | 69.00                               | 1                    | 87.1                                 | 17.2                       | 5                             |
| 1.5SMCJ58C                 | BGF                 | 58.0                               | 64.40                               | 81.60                               | 1                    | 103.0                                | 14.6                       | 5                             |
| 1.5SMCJ58CA                | BGG                 | 58.0                               | 64.40                               | 74.10                               | 1                    | 93.6                                 | 16.0                       | 5                             |
| 1.5SMCJ60C                 | BGH                 | 60.0                               | 66.70                               | 84.50                               | 1                    | 107.0                                | 14.0                       | 5                             |
| 1.5SMCJ60CA                | BGK                 | 60.0                               | 66.70                               | 76.70                               | 1                    | 96.8                                 | 15.5                       | 5                             |
| 1.5SMCJ64C                 | BGL                 | 64.0                               | 71.10                               | 90.10                               | 1                    | 114.0                                | 13.2                       | 5                             |
| 1.5SMCJ64CA                | BGM                 | 64.0                               | 71.10                               | 81.80                               | 1                    | 103.0                                | 14.6                       | 5                             |
| 1.5SMCJ70C                 | BGN                 | 70.0                               | 77.80                               | 98.60                               | 1                    | 125.0                                | 12.0                       | 5                             |
| 1.5SMCJ70CA                | BGP                 | 70.0                               | 77.80                               | 89.50                               | 1                    | 113.0                                | 13.3                       | 5                             |
| 1.5SMCJ75C                 | BGQ                 | 75.0                               | 83.30                               | 105.70                              | 1                    | 134.0                                | 11.2                       | 5                             |
| 1.5SMCJ75CA                | BGR                 | 75.0                               | 83.30                               | 95.80                               | 1                    | 121.0                                | 12.4                       | 5                             |
| 1.5SMCJ78C                 | BGS                 | 78.0                               | 86.70                               | 109.80                              | 1                    | 139.0                                | 10.8                       | 5                             |
| 1.5SMCJ78CA                | BGT                 | 78.0                               | 86.70                               | 99.70                               | 1                    | 126.0                                | 11.4                       | 5                             |
| 1.5SMCJ85C                 | BGU                 | 85.0                               | 94.40                               | 119.20                              | 1                    | 151.0                                | 9.9                        | 5                             |
| 1.5SMCJ85CA                | BGV                 | 85.0                               | 94.40                               | 108.20                              | 1                    | 137.0                                | 10.4                       | 5                             |
| 1.5SMCJ90C                 | BGW                 | 90.0                               | 100.00                              | 126.50                              | 1                    | 160.0                                | 9.4                        | 5                             |
| 1.5SMCJ90CA                | BGX                 | 90.0                               | 100.00                              | 115.50                              | 1                    | 146.0                                | 10.3                       | 5                             |
| 1.5SMCJ100C                | BGY                 | 100.0                              | 111.00                              | 141.00                              | 1                    | 179.0                                | 8.4                        | 5                             |
| 1.5SMCJ100CA               | BGZ                 | 100.0                              | 111.00                              | 128.00                              | 1                    | 162.0                                | 9.3                        | 5                             |
| 1.5SMCJ110C                | BHD                 | 110.0                              | 122.00                              | 154.50                              | 1                    | 196.0                                | 7.7                        | 5                             |
| 1.5SMCJ110CA               | BHE                 | 110.0                              | 122.00                              | 140.50                              | 1                    | 177.0                                | 8.4                        | 5                             |
| 1.5SMCJ120C                | BHF                 | 120.0                              | 133.00                              | 169.00                              | 1                    | 214.0                                | 7.0                        | 5                             |
| 1.5SMCJ120CA               | BHG                 | 120.0                              | 133.00                              | 153.00                              | 1                    | 193.0                                | 7.9                        | 5                             |
| 1.5SMCJ130C                | BHH                 | 130.0                              | 144.00                              | 182.50                              | 1                    | 231.0                                | 6.5                        | 5                             |
| 1.5SMCJ130CA               | BHK                 | 130.0                              | 144.00                              | 165.50                              | 1                    | 209.0                                | 7.2                        | 5                             |
| 1.5SMCJ150C                | BHL                 | 150.0                              | 167.00                              | 211.50                              | 1                    | 268.0                                | 5.6                        | 5                             |
| 1.5SMCJ150CA               | BHM                 | 150.0                              | 167.00                              | 192.50                              | 1                    | 243.0                                | 6.2                        | 5                             |
| 1.5SMCJ160C                | BHN                 | 160.0                              | 178.00                              | 228.00                              | 1                    | 287.0                                | 5.2                        | 5                             |
| 1.5SMCJ160CA               | BHP                 | 160.0                              | 178.00                              | 205.00                              | 1                    | 259.0                                | 5.8                        | 5                             |
| 1.5SMCJ170C                | BHQ                 | 170.0                              | 189.00                              | 239.50                              | 1                    | 304.0                                | 4.9                        | 5                             |
| 1.5SMCJ170CA               | BHR                 | 170.0                              | 189.00                              | 217.50                              | 1                    | 275.0                                | 5.5                        | 5                             |