

## P6SMBJ SERIES

**SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR**  
**VOLTAGE – 5.0-170 Volts    Peak Pulse Power-600 Watts**

### FEATURES

- For surface mounted applications in order to optimize board space
- Low profile package
- Built-in strain relief
- Glass passivated junction
- Low inductance
- Excellent clamping capability
- Repetition Rate (duty cycle): 0.01%
- Fast response time: typically less than 1.0ps from 0 volts to BV for unidirectional types
- Typical  $I_o$  less than  $1\mu A$  above 10V
- High temperature soldering:  $260^\circ C/10$  seconds at terminals
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0

### MECHANICAL DATA

Case: JEDEC DO-214AA. Molded plastic over passivated junction

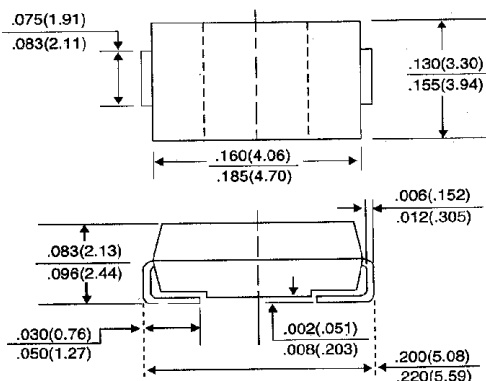
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes positive end (cathode) except Bidirectional

Standard Packaging: 12mm tape (EIA-481)

Weight: 0.003 ounces, 0.093 gram

### SMB/DO-214AA



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at  $25^\circ C$  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 600 | 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 | $^\circ C$ |

#### NOTES:

1. Non-repetitive current pulse, per Fig.3 and derated above  $T_A = 25^\circ C$  per Fig. 2.
2. Mounted on 5.0mm<sup>2</sup> (.013mm thick) land areas.
3. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

## RATING AND CHARACTERISTIC CURVES P6SMBJ SERIES

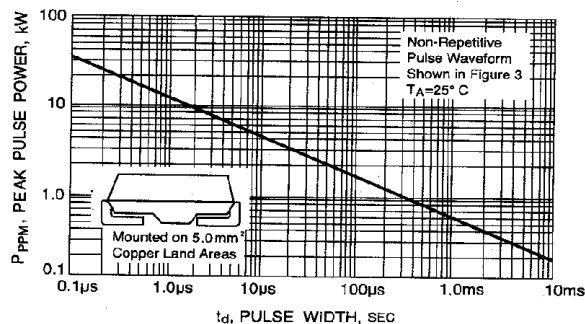


FIG.1-PEAK PULSE POWER RATING CURVE

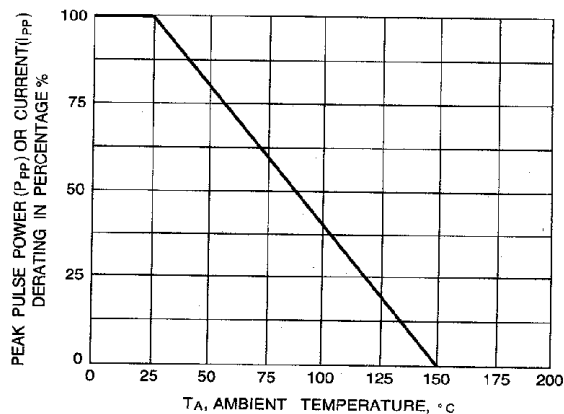


FIG.2-PULSE RATING CURVE

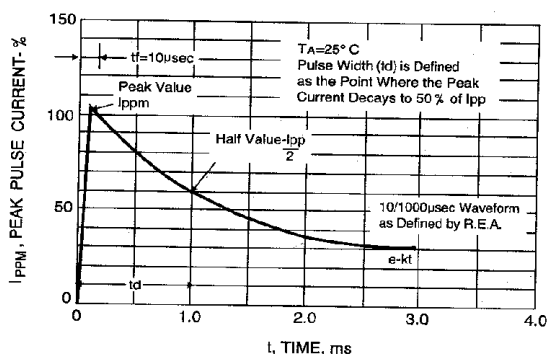


FIG.3-PULSE WAVEFORM

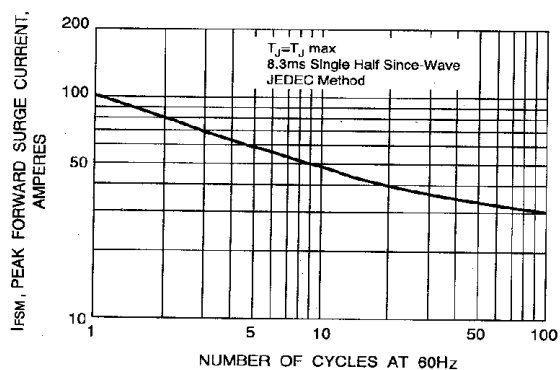


FIG.5-MAXIMUM NON-REPETITIVE  
PEAK FORWARD SURGE CURRENT

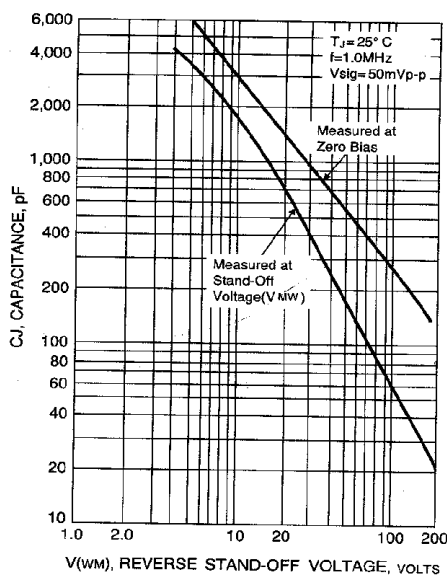


FIG.4-TYPICAL JUNCTION CAPACITANCE



## UNI-DIRECTIONAL 600 Watt Surface Mount TVS

| UNI-DIRECTIONAL<br>PART<br>NUMBER | DEVICE<br>MARKING<br>CODE | REVERSE<br>STAND-OFF<br>VOLTAGE<br>VRWM (V) | BREAKDOWN<br>VOLTAGE<br>VBR (V)<br>MIN. @ IT | BREAKDOWN<br>VOLTAGE<br>VBR (V)<br>MAX. @ IT | TEST<br>CURRENT<br>IT<br>(mA) | MAXIMUM<br>CLAMPING<br>VOLTAGE<br>@Ipp Vc (V) | PEAK<br>PULSE<br>CURRENT<br>Ipp (A) | REVERSE<br>LEAKAGE<br>@VRWM<br>IR (uA) |
|-----------------------------------|---------------------------|---------------------------------------------|----------------------------------------------|----------------------------------------------|-------------------------------|-----------------------------------------------|-------------------------------------|----------------------------------------|
| P6SMBJ5.0                         | KD                        | 5.0                                         | 6.40                                         | 7.55                                         | 10                            | 9.6                                           | 62.5                                | 800                                    |
| P6SMBJ5.0A                        | KE                        | 5.0                                         | 6.40                                         | 7.25                                         | 10                            | 9.2                                           | 65.2                                | 800                                    |
| P6SMBJ6.0                         | KF                        | 6.0                                         | 6.67                                         | 8.45                                         | 10                            | 11.4                                          | 52.6                                | 800                                    |
| P6SMBJ6.0A                        | KG                        | 6.0                                         | 6.67                                         | 7.67                                         | 10                            | 10.3                                          | 58.3                                | 800                                    |
| P6SMBJ6.5                         | KH                        | 6.5                                         | 7.22                                         | 9.14                                         | 10                            | 12.3                                          | 48.7                                | 500                                    |
| P6SMBJ6.5A                        | KK                        | 6.5                                         | 7.22                                         | 8.30                                         | 10                            | 11.2                                          | 53.6                                | 500                                    |
| P6SMBJ7.0                         | KL                        | 7.0                                         | 7.78                                         | 9.86                                         | 10                            | 13.3                                          | 45.1                                | 200                                    |
| P6SMBJ7.0A                        | KM                        | 7.0                                         | 7.78                                         | 8.95                                         | 10                            | 12.0                                          | 50.0                                | 200                                    |
| P6SMBJ7.5                         | KN                        | 7.5                                         | 8.33                                         | 10.67                                        | 1                             | 14.3                                          | 42.0                                | 100                                    |
| P6SMBJ7.5A                        | KP                        | 7.5                                         | 8.33                                         | 9.58                                         | 1                             | 12.9                                          | 46.5                                | 100                                    |
| P6SMBJ8.0                         | KQ                        | 8.0                                         | 8.89                                         | 11.30                                        | 1                             | 15.0                                          | 40.0                                | 50                                     |
| P6SMBJ8.0A                        | KR                        | 8.0                                         | 8.89                                         | 10.23                                        | 1                             | 13.6                                          | 44.1                                | 50                                     |
| P6SMBJ8.5                         | KS                        | 8.5                                         | 9.44                                         | 11.92                                        | 1                             | 15.9                                          | 37.7                                | 10                                     |
| P6SMBJ8.5A                        | KT                        | 8.5                                         | 9.44                                         | 10.82                                        | 1                             | 14.4                                          | 41.7                                | 10                                     |
| P6SMBJ9.0                         | KU                        | 9.0                                         | 10.00                                        | 12.60                                        | 1                             | 16.9                                          | 35.5                                | 5                                      |
| P6SMBJ9.0A                        | KV                        | 9.0                                         | 10.00                                        | 11.50                                        | 1                             | 15.4                                          | 39.0                                | 5                                      |
| P6SMBJ10                          | KW                        | 10.0                                        | 11.10                                        | 14.10                                        | 1                             | 18.8                                          | 31.9                                | 5                                      |
| P6SMBJ10A                         | KX                        | 10.0                                        | 11.10                                        | 12.80                                        | 1                             | 17.0                                          | 35.3                                | 5                                      |
| P6SMBJ11                          | KY                        | 11.0                                        | 12.20                                        | 15.40                                        | 1                             | 20.1                                          | 29.9                                | 5                                      |
| P6SMBJ11A                         | KZ                        | 11.0                                        | 12.20                                        | 14.00                                        | 1                             | 18.2                                          | 33.0                                | 5                                      |
| P6SMBJ12                          | LD                        | 12.0                                        | 13.30                                        | 16.90                                        | 1                             | 22.0                                          | 27.3                                | 5                                      |
| P6SMBJ12A                         | LE                        | 12.0                                        | 13.30                                        | 15.30                                        | 1                             | 19.9                                          | 30.2                                | 5                                      |
| P6SMBJ13                          | LF                        | 13.0                                        | 14.40                                        | 18.20                                        | 1                             | 23.8                                          | 25.2                                | 5                                      |
| P6SMBJ13A                         | LG                        | 13.0                                        | 14.40                                        | 16.50                                        | 1                             | 21.5                                          | 27.9                                | 5                                      |
| P6SMBJ14                          | LH                        | 14.0                                        | 15.60                                        | 19.80                                        | 1                             | 25.8                                          | 23.3                                | 5                                      |
| P6SMBJ14A                         | LK                        | 14.0                                        | 15.60                                        | 17.90                                        | 1                             | 23.2                                          | 25.8                                | 5                                      |
| P6SMBJ15                          | LL                        | 15.0                                        | 16.70                                        | 21.10                                        | 1                             | 28.9                                          | 22.3                                | 5                                      |
| P6SMBJ15A                         | LM                        | 15.0                                        | 16.70                                        | 19.20                                        | 1                             | 24.4                                          | 24.0                                | 5                                      |
| P6SMBJ16                          | LN                        | 16.0                                        | 17.80                                        | 22.60                                        | 1                             | 28.8                                          | 20.8                                | 5                                      |
| P6SMBJ16A                         | LP                        | 16.0                                        | 17.80                                        | 20.50                                        | 1                             | 26.0                                          | 23.1                                | 5                                      |
| P6SMBJ17                          | LQ                        | 17.0                                        | 18.90                                        | 23.90                                        | 1                             | 30.5                                          | 19.7                                | 5                                      |
| P6SMBJ17A                         | LR                        | 17.0                                        | 18.90                                        | 21.70                                        | 1                             | 27.6                                          | 21.7                                | 5                                      |
| P6SMBJ18                          | LS                        | 18.0                                        | 20.00                                        | 25.30                                        | 1                             | 32.2                                          | 18.6                                | 5                                      |
| P6SMBJ18A                         | LT                        | 18.0                                        | 20.00                                        | 23.30                                        | 1                             | 29.2                                          | 20.5                                | 5                                      |
| P6SMBJ20                          | LU                        | 20.0                                        | 22.20                                        | 28.10                                        | 1                             | 35.8                                          | 16.7                                | 5                                      |
| P6SMBJ20A                         | LV                        | 20.0                                        | 22.20                                        | 25.50                                        | 1                             | 32.4                                          | 18.5                                | 5                                      |
| P6SMBJ22                          | LW                        | 22.0                                        | 24.40                                        | 30.90                                        | 1                             | 39.4                                          | 15.2                                | 5                                      |
| P6SMBJ22A                         | LX                        | 22.0                                        | 24.40                                        | 28.00                                        | 1                             | 35.5                                          | 16.9                                | 5                                      |
| P6SMBJ24                          | LY                        | 24.0                                        | 26.70                                        | 33.90                                        | 1                             | 43.0                                          | 14.0                                | 5                                      |
| P6SMBJ24A                         | LZ                        | 24.0                                        | 26.70                                        | 30.70                                        | 1                             | 38.9                                          | 15.4                                | 5                                      |
| P6SMBJ26                          | MD                        | 26.0                                        | 28.90                                        | 36.60                                        | 1                             | 46.6                                          | 12.4                                | 5                                      |
| P6SMBJ26A                         | ME                        | 26.0                                        | 28.90                                        | 33.20                                        | 1                             | 42.1                                          | 14.2                                | 5                                      |
| P6SMBJ28                          | MF                        | 28.0                                        | 31.10                                        | 39.40                                        | 1                             | 50.0                                          | 12.0                                | 5                                      |
| P6SMBJ28A                         | MG                        | 28.0                                        | 31.10                                        | 35.80                                        | 1                             | 45.4                                          | 13.2                                | 5                                      |
| P6SMBJ30                          | MH                        | 30.0                                        | 33.30                                        | 42.20                                        | 1                             | 53.5                                          | 11.2                                | 5                                      |
| P6SMBJ30A                         | MK                        | 30.0                                        | 33.30                                        | 38.30                                        | 1                             | 48.4                                          | 12.4                                | 5                                      |
| P6SMBJ33                          | ML                        | 33.0                                        | 36.70                                        | 46.50                                        | 1                             | 59.0                                          | 10.2                                | 5                                      |
| P6SMBJ33A                         | MM                        | 33.0                                        | 36.70                                        | 42.20                                        | 1                             | 53.3                                          | 11.3                                | 5                                      |
| P6SMBJ36                          | MN                        | 36.0                                        | 40.00                                        | 50.70                                        | 1                             | 64.3                                          | 9.3                                 | 5                                      |
| P6SMBJ36A                         | MP                        | 36.0                                        | 40.00                                        | 46.00                                        | 1                             | 58.1                                          | 10.3                                | 5                                      |
| P6SMBJ40                          | MQ                        | 40.0                                        | 44.40                                        | 56.30                                        | 1                             | 71.4                                          | 8.4                                 | 5                                      |
| P6SMBJ40A                         | MR                        | 40.0                                        | 44.40                                        | 51.10                                        | 1                             | 64.5                                          | 9.3                                 | 5                                      |
| P6SMBJ43                          | MS                        | 43.0                                        | 47.80                                        | 60.50                                        | 1                             | 76.7                                          | 7.8                                 | 5                                      |
| P6SMBJ43A                         | MT                        | 43.0                                        | 47.80                                        | 54.90                                        | 1                             | 69.4                                          | 8.6                                 | 5                                      |
| P6SMBJ45                          | MU                        | 45.0                                        | 50.00                                        | 63.30                                        | 1                             | 80.3                                          | 7.5                                 | 5                                      |
| P6SMBJ45A                         | MV                        | 45.0                                        | 50.00                                        | 57.50                                        | 1                             | 72.7                                          | 8.3                                 | 5                                      |
| P6SMBJ48                          | MW                        | 48.0                                        | 53.30                                        | 67.50                                        | 1                             | 85.5                                          | 7.0                                 | 5                                      |
| P6SMBJ48A                         | MX                        | 48.0                                        | 53.30                                        | 61.30                                        | 1                             | 77.4                                          | 7.7                                 | 5                                      |
| P6SMBJ51                          | MY                        | 51.0                                        | 56.70                                        | 71.80                                        | 1                             | 91.1                                          | 6.6                                 | 5                                      |
| P6SMBJ51A                         | MZ                        | 51.0                                        | 56.70                                        | 65.20                                        | 1                             | 82.4                                          | 7.3                                 | 5                                      |
| P6SMBJ54                          | ND                        | 54.0                                        | 60.00                                        | 76.00                                        | 1                             | 96.3                                          | 6.2                                 | 5                                      |
| P6SMBJ54A                         | NE                        | 54.0                                        | 60.00                                        | 69.00                                        | 1                             | 87.1                                          | 6.9                                 | 5                                      |
| P6SMBJ58                          | NF                        | 58.0                                        | 64.40                                        | 81.60                                        | 1                             | 103.0                                         | 5.8                                 | 5                                      |
| P6SMBJ58A                         | NG                        | 58.0                                        | 64.40                                        | 74.10                                        | 1                             | 93.6                                          | 6.4                                 | 5                                      |
| P6SMBJ60                          | NH                        | 60.0                                        | 66.70                                        | 84.50                                        | 1                             | 107.0                                         | 5.6                                 | 5                                      |
| P6SMBJ60A                         | NK                        | 60.0                                        | 66.70                                        | 76.70                                        | 1                             | 96.8                                          | 6.2                                 | 5                                      |
| P6SMBJ64                          | NL                        | 64.0                                        | 71.10                                        | 90.10                                        | 1                             | 114.0                                         | 5.3                                 | 5                                      |
| P6SMBJ64A                         | NM                        | 64.0                                        | 71.10                                        | 81.80                                        | 1                             | 103.0                                         | 5.8                                 | 5                                      |
| P6SMBJ70                          | NN                        | 70.0                                        | 77.80                                        | 98.80                                        | 1                             | 125.0                                         | 4.8                                 | 5                                      |
| P6SMBJ70A                         | NP                        | 70.0                                        | 77.80                                        | 89.50                                        | 1                             | 113.0                                         | 5.3                                 | 5                                      |
| P6SMBJ75                          | NQ                        | 75.0                                        | 83.30                                        | 105.70                                       | 1                             | 134.0                                         | 4.5                                 | 5                                      |
| P6SMBJ75A                         | NR                        | 75.0                                        | 83.30                                        | 95.80                                        | 1                             | 121.0                                         | 4.9                                 | 5                                      |
| P6SMBJ78                          | NS                        | 78.0                                        | 85.70                                        | 109.80                                       | 1                             | 139.0                                         | 4.3                                 | 5                                      |
| P6SMBJ78A                         | NT                        | 78.0                                        | 85.70                                        | 99.70                                        | 1                             | 126.0                                         | 4.7                                 | 5                                      |
| P6SMBJ85                          | NU                        | 85.0                                        | 94.40                                        | 119.20                                       | 1                             | 151.0                                         | 3.9                                 | 5                                      |
| P6SMBJ85A                         | NV                        | 85.0                                        | 94.40                                        | 108.20                                       | 1                             | 137.0                                         | 4.4                                 | 5                                      |
| P6SMBJ90                          | NW                        | 90.0                                        | 100.00                                       | 126.50                                       | 1                             | 160.0                                         | 3.8                                 | 5                                      |
| P6SMBJ90A                         | NX                        | 90.0                                        | 100.00                                       | 115.50                                       | 1                             | 146.0                                         | 4.1                                 | 5                                      |
| P6SMBJ100                         | NY                        | 100.0                                       | 111.00                                       | 141.00                                       | 1                             | 179.0                                         | 3.4                                 | 5                                      |
| P6SMBJ100A                        | NZ                        | 100.0                                       | 111.00                                       | 128.00                                       | 1                             | 162.0                                         | 3.7                                 | 5                                      |
| P6SMBJ110                         | PD                        | 110.0                                       | 122.00                                       | 154.50                                       | 1                             | 196.0                                         | 3.0                                 | 5                                      |
| P6SMBJ110A                        | PE                        | 110.0                                       | 122.00                                       | 140.50                                       | 1                             | 177.0                                         | 3.4                                 | 5                                      |
| P6SMBJ120                         | PF                        | 120.0                                       | 133.00                                       | 169.00                                       | 1                             | 214.0                                         | 2.8                                 | 5                                      |
| P6SMBJ120A                        | PG                        | 120.0                                       | 133.00                                       | 153.00                                       | 1                             | 193.0                                         | 3.1                                 | 5                                      |
| P6SMBJ130                         | PH                        | 130.0                                       | 144.00                                       | 182.50                                       | 1                             | 231.0                                         | 2.6                                 | 5                                      |
| P6SMBJ130A                        | PK                        | 130.0                                       | 144.00                                       | 165.50                                       | 1                             | 209.0                                         | 2.9                                 | 5                                      |
| P6SMBJ150                         | PL                        | 150.0                                       | 167.00                                       | 211.50                                       | 1                             | 268.0                                         | 2.2                                 | 5                                      |
| P6SMBJ150A                        | PM                        | 150.0                                       | 167.00                                       | 192.50                                       | 1                             | 243.0                                         | 2.5                                 | 5                                      |
| P6SMBJ160                         | PN                        | 160.0                                       | 178.00                                       | 226.00                                       | 1                             | 287.0                                         | 2.1                                 | 5                                      |
| P6SMBJ160A                        | PP                        | 160.0                                       | 178.00                                       | 205.00                                       | 1                             | 259.0                                         | 2.3                                 | 5                                      |
| P6SMBJ170                         | PQ                        | 170.0                                       | 189.00                                       | 239.50                                       | 1                             | 304.0                                         | 2.0                                 | 5                                      |
| P6SMBJ170A                        | PR                        | 170.0                                       | 189.00                                       | 217.50                                       | 1                             | 275.0                                         | 2.2                                 | 5                                      |



## BI-DIRECTIONAL 600 Watt Surface Mount TVS

| BI-DIRECTIONAL<br>PART<br>NUMBER | DEVICE<br>MARKING<br>CODE | REVERSE<br>STAND-OFF<br>VOLTAGE<br>VRWM (V) | BREAKDOWN<br>VOLTAGE<br>VBR (V)<br>MIN. @ IT | BREAKDOWN<br>VOLTAGE<br>VBR (V)<br>MAX. @ IT | TEST<br>CURRENT<br>IT<br>(mA) | MAXIMUM<br>CLAMPING<br>VOLTAGE<br>@Ipp Vc (V) | PEAK<br>PULSE<br>CURRENT<br>Ipp (A) | REVERSE<br>LEAKAGE<br>@VRWM<br>IR (uA) |
|----------------------------------|---------------------------|---------------------------------------------|----------------------------------------------|----------------------------------------------|-------------------------------|-----------------------------------------------|-------------------------------------|----------------------------------------|
| P6SMBJ5.0C                       | AD                        | 5.0                                         | 6.40                                         | 7.55                                         | 10                            | 9.6                                           | 62.5                                | 1600                                   |
| P6SMBJ5.0CA                      | AE                        | 5.0                                         | 6.40                                         | 7.25                                         | 10                            | 9.2                                           | 65.2                                | 1600                                   |
| P6SMBJ6.0C                       | AF                        | 6.0                                         | 6.67                                         | 8.45                                         | 10                            | 11.4                                          | 52.6                                | 1600                                   |
| P6SMBJ6.0CA                      | AG                        | 6.0                                         | 6.67                                         | 7.67                                         | 10                            | 10.3                                          | 58.3                                | 1600                                   |
| P6SMBJ6.5C                       | AH                        | 6.5                                         | 7.22                                         | 9.14                                         | 10                            | 12.3                                          | 48.7                                | 1000                                   |
| P6SMBJ6.5CA                      | AK                        | 6.5                                         | 7.22                                         | 8.30                                         | 10                            | 11.2                                          | 53.6                                | 1000                                   |
| P6SMBJ7.0C                       | AL                        | 7.0                                         | 7.78                                         | 9.86                                         | 10                            | 13.3                                          | 45.1                                | 400                                    |
| P6SMBJ7.0CA                      | AM                        | 7.0                                         | 7.78                                         | 8.95                                         | 10                            | 12.0                                          | 50.0                                | 400                                    |
| P6SMBJ7.5C                       | AN                        | 7.5                                         | 8.33                                         | 10.67                                        | 1                             | 14.3                                          | 42.0                                | 200                                    |
| P6SMBJ7.5CA                      | AP                        | 7.5                                         | 8.33                                         | 9.58                                         | 1                             | 12.9                                          | 46.5                                | 200                                    |
| P6SMBJ8.0C                       | AQ                        | 8.0                                         | 8.89                                         | 11.30                                        | 1                             | 15.0                                          | 40.0                                | 100                                    |
| P6SMBJ8.0CA                      | AR                        | 8.0                                         | 8.89                                         | 10.23                                        | 1                             | 13.6                                          | 44.1                                | 100                                    |
| P6SMBJ8.5C                       | AS                        | 8.5                                         | 9.44                                         | 11.92                                        | 1                             | 15.9                                          | 37.7                                | 20                                     |
| P6SMBJ8.5CA                      | AT                        | 8.5                                         | 9.44                                         | 10.82                                        | 1                             | 14.4                                          | 41.7                                | 20                                     |
| P6SMBJ9.0C                       | AU                        | 9.0                                         | 10.00                                        | 12.60                                        | 1                             | 16.9                                          | 35.5                                | 10                                     |
| P6SMBJ9.0CA                      | AV                        | 9.0                                         | 10.00                                        | 11.50                                        | 1                             | 15.4                                          | 39.0                                | 10                                     |
| P6SMBJ10C                        | AW                        | 10.0                                        | 11.10                                        | 14.10                                        | 1                             | 18.8                                          | 31.9                                | 5                                      |
| P6SMBJ10CA                       | AX                        | 10.0                                        | 11.10                                        | 12.80                                        | 1                             | 17.0                                          | 35.3                                | 5                                      |
| P6SMBJ11C                        | AY                        | 11.0                                        | 12.20                                        | 15.40                                        | 1                             | 20.1                                          | 29.8                                | 5                                      |
| P6SMBJ11CA                       | AZ                        | 11.0                                        | 12.20                                        | 14.00                                        | 1                             | 18.2                                          | 33.0                                | 5                                      |
| P6SMBJ12C                        | BD                        | 12.0                                        | 13.30                                        | 16.90                                        | 1                             | 22.0                                          | 27.3                                | 5                                      |
| P6SMBJ12CA                       | BE                        | 12.0                                        | 13.30                                        | 15.30                                        | 1                             | 19.9                                          | 30.2                                | 5                                      |
| P6SMBJ13C                        | BF                        | 13.0                                        | 14.40                                        | 18.20                                        | 1                             | 23.8                                          | 25.2                                | 5                                      |
| P6SMBJ13CA                       | BG                        | 13.0                                        | 14.40                                        | 16.50                                        | 1                             | 21.5                                          | 27.9                                | 5                                      |
| P6SMBJ14C                        | BH                        | 14.0                                        | 15.60                                        | 19.80                                        | 1                             | 25.8                                          | 23.3                                | 5                                      |
| P6SMBJ14CA                       | BK                        | 14.0                                        | 15.60                                        | 17.90                                        | 1                             | 23.2                                          | 25.8                                | 5                                      |
| P6SMBJ15C                        | BL                        | 15.0                                        | 16.70                                        | 21.10                                        | 1                             | 26.9                                          | 22.3                                | 5                                      |
| P6SMBJ15CA                       | BM                        | 15.0                                        | 16.70                                        | 19.20                                        | 1                             | 24.4                                          | 24.0                                | 5                                      |
| P6SMBJ16C                        | BN                        | 16.0                                        | 17.80                                        | 22.60                                        | 1                             | 28.8                                          | 20.8                                | 5                                      |
| P6SMBJ16CA                       | BP                        | 16.0                                        | 17.80                                        | 20.50                                        | 1                             | 26.0                                          | 23.1                                | 5                                      |
| P6SMBJ17C                        | BQ                        | 17.0                                        | 18.90                                        | 23.90                                        | 1                             | 30.5                                          | 19.7                                | 5                                      |
| P6SMBJ17CA                       | BR                        | 17.0                                        | 18.90                                        | 21.70                                        | 1                             | 27.6                                          | 21.7                                | 5                                      |
| P6SMBJ18C                        | BS                        | 18.0                                        | 20.00                                        | 25.30                                        | 1                             | 32.2                                          | 18.6                                | 5                                      |
| P6SMBJ18CA                       | BT                        | 18.0                                        | 20.00                                        | 23.30                                        | 1                             | 29.2                                          | 20.5                                | 5                                      |
| P6SMBJ20C                        | BU                        | 20.0                                        | 22.20                                        | 28.10                                        | 1                             | 35.8                                          | 16.7                                | 5                                      |
| P6SMBJ20CA                       | BV                        | 20.0                                        | 22.20                                        | 25.50                                        | 1                             | 32.4                                          | 18.5                                | 5                                      |
| P6SMBJ22C                        | BW                        | 22.0                                        | 24.40                                        | 30.90                                        | 1                             | 39.4                                          | 15.2                                | 5                                      |
| P6SMBJ22CA                       | BX                        | 22.0                                        | 24.40                                        | 28.00                                        | 1                             | 35.5                                          | 16.9                                | 5                                      |
| P6SMBJ24C                        | BY                        | 24.0                                        | 26.70                                        | 33.80                                        | 1                             | 43.0                                          | 14.0                                | 5                                      |
| P6SMBJ24CA                       | BZ                        | 24.0                                        | 26.70                                        | 30.70                                        | 1                             | 38.9                                          | 15.4                                | 5                                      |
| P6SMBJ26C                        | CD                        | 26.0                                        | 28.90                                        | 36.60                                        | 1                             | 46.6                                          | 12.4                                | 5                                      |
| P6SMBJ26CA                       | CE                        | 26.0                                        | 28.90                                        | 33.20                                        | 1                             | 42.1                                          | 14.2                                | 5                                      |
| P6SMBJ28C                        | CF                        | 28.0                                        | 31.10                                        | 39.40                                        | 1                             | 50.0                                          | 12.0                                | 5                                      |
| P6SMBJ28CA                       | CG                        | 28.0                                        | 31.10                                        | 35.80                                        | 1                             | 45.4                                          | 13.2                                | 5                                      |
| P6SMBJ30C                        | CH                        | 30.0                                        | 33.30                                        | 42.20                                        | 1                             | 53.5                                          | 11.2                                | 5                                      |
| P6SMBJ30CA                       | CK                        | 30.0                                        | 33.30                                        | 38.30                                        | 1                             | 48.4                                          | 12.4                                | 5                                      |
| P6SMBJ33C                        | CL                        | 33.0                                        | 36.70                                        | 46.50                                        | 1                             | 59.0                                          | 10.2                                | 5                                      |
| P6SMBJ33CA                       | CM                        | 33.0                                        | 36.70                                        | 42.20                                        | 1                             | 53.3                                          | 11.3                                | 5                                      |
| P6SMBJ36C                        | CN                        | 36.0                                        | 40.00                                        | 50.70                                        | 1                             | 64.3                                          | 9.3                                 | 5                                      |
| P6SMBJ36CA                       | CP                        | 36.0                                        | 40.00                                        | 46.00                                        | 1                             | 58.1                                          | 10.3                                | 5                                      |
| P6SMBJ40C                        | CQ                        | 40.0                                        | 44.40                                        | 56.30                                        | 1                             | 71.4                                          | 8.4                                 | 5                                      |
| P6SMBJ40CA                       | CR                        | 40.0                                        | 44.40                                        | 51.10                                        | 1                             | 64.5                                          | 9.3                                 | 5                                      |
| P6SMBJ43C                        | CS                        | 43.0                                        | 47.80                                        | 60.50                                        | 1                             | 76.7                                          | 7.8                                 | 5                                      |
| P6SMBJ43CA                       | CT                        | 43.0                                        | 47.80                                        | 54.90                                        | 1                             | 69.4                                          | 8.6                                 | 5                                      |
| P6SMBJ45C                        | CU                        | 45.0                                        | 50.00                                        | 63.30                                        | 1                             | 80.3                                          | 7.5                                 | 5                                      |
| P6SMBJ45CA                       | CV                        | 45.0                                        | 50.00                                        | 57.50                                        | 1                             | 72.7                                          | 8.3                                 | 5                                      |
| P6SMBJ48C                        | CW                        | 48.0                                        | 53.30                                        | 67.50                                        | 1                             | 85.5                                          | 7.0                                 | 5                                      |
| P6SMBJ48CA                       | CX                        | 48.0                                        | 53.30                                        | 61.30                                        | 1                             | 77.4                                          | 7.7                                 | 5                                      |
| P6SMBJ51C                        | CY                        | 51.0                                        | 56.70                                        | 71.80                                        | 1                             | 91.1                                          | 6.6                                 | 5                                      |
| P6SMBJ51CA                       | CZ                        | 51.0                                        | 56.70                                        | 65.20                                        | 1                             | 82.4                                          | 7.3                                 | 5                                      |
| P6SMBJ54C                        | DD                        | 54.0                                        | 60.00                                        | 76.00                                        | 1                             | 96.3                                          | 6.2                                 | 5                                      |
| P6SMBJ54CA                       | DE                        | 54.0                                        | 60.00                                        | 69.00                                        | 1                             | 87.1                                          | 6.9                                 | 5                                      |
| P6SMBJ58C                        | DF                        | 58.0                                        | 64.40                                        | 81.60                                        | 1                             | 103.0                                         | 5.8                                 | 5                                      |
| P6SMBJ58CA                       | DG                        | 58.0                                        | 64.40                                        | 74.10                                        | 1                             | 93.6                                          | 6.4                                 | 5                                      |
| P6SMBJ60C                        | DH                        | 60.0                                        | 66.70                                        | 84.50                                        | 1                             | 107.0                                         | 5.6                                 | 5                                      |
| P6SMBJ60CA                       | DK                        | 60.0                                        | 66.70                                        | 76.70                                        | 1                             | 96.8                                          | 6.2                                 | 5                                      |
| P6SMBJ64C                        | DL                        | 64.0                                        | 71.10                                        | 90.10                                        | 1                             | 114.0                                         | 5.3                                 | 5                                      |
| P6SMBJ64CA                       | DM                        | 64.0                                        | 71.10                                        | 81.80                                        | 1                             | 103.0                                         | 5.8                                 | 5                                      |
| P6SMBJ70C                        | DN                        | 70.0                                        | 77.80                                        | 98.60                                        | 1                             | 125.0                                         | 4.8                                 | 5                                      |
| P6SMBJ70CA                       | DP                        | 70.0                                        | 77.80                                        | 89.50                                        | 1                             | 113.0                                         | 5.3                                 | 5                                      |
| P6SMBJ75C                        | DQ                        | 75.0                                        | 83.30                                        | 105.70                                       | 1                             | 134.0                                         | 4.5                                 | 5                                      |
| P6SMBJ75CA                       | DR                        | 75.0                                        | 83.30                                        | 95.60                                        | 1                             | 121.0                                         | 4.9                                 | 5                                      |
| P6SMBJ78C                        | DS                        | 78.0                                        | 86.70                                        | 109.80                                       | 1                             | 139.0                                         | 4.3                                 | 5                                      |
| P6SMBJ78CA                       | DT                        | 78.0                                        | 86.70                                        | 99.70                                        | 1                             | 126.0                                         | 4.7                                 | 5                                      |
| P6SMBJ85C                        | DU                        | 85.0                                        | 94.40                                        | 119.20                                       | 1                             | 151.0                                         | 3.9                                 | 5                                      |
| P6SMBJ85CA                       | DV                        | 85.0                                        | 94.40                                        | 108.20                                       | 1                             | 137.0                                         | 4.4                                 | 5                                      |
| P6SMBJ90C                        | DW                        | 90.0                                        | 100.00                                       | 126.50                                       | 1                             | 160.0                                         | 3.8                                 | 5                                      |
| P6SMBJ90CA                       | DX                        | 90.0                                        | 100.00                                       | 115.50                                       | 1                             | 146.0                                         | 4.1                                 | 5                                      |
| P6SMBJ100C                       | DY                        | 100.0                                       | 111.00                                       | 141.00                                       | 1                             | 179.0                                         | 3.4                                 | 5                                      |
| P6SMBJ100CA                      | DZ                        | 100.0                                       | 111.00                                       | 128.00                                       | 1                             | 162.0                                         | 3.7                                 | 5                                      |
| P6SMBJ110C                       | ED                        | 110.0                                       | 122.00                                       | 154.50                                       | 1                             | 198.0                                         | 3.0                                 | 5                                      |
| P6SMBJ110CA                      | EE                        | 110.0                                       | 122.00                                       | 140.50                                       | 1                             | 177.0                                         | 3.4                                 | 5                                      |
| P6SMBJ120C                       | EF                        | 120.0                                       | 133.00                                       | 169.00                                       | 1                             | 214.0                                         | 2.8                                 | 5                                      |
| P6SMBJ120CA                      | EG                        | 120.0                                       | 133.00                                       | 153.00                                       | 1                             | 193.0                                         | 3.1                                 | 5                                      |
| P6SMBJ130C                       | EH                        | 130.0                                       | 144.00                                       | 182.50                                       | 1                             | 231.0                                         | 2.6                                 | 5                                      |
| P6SMBJ130CA                      | EK                        | 130.0                                       | 144.00                                       | 165.50                                       | 1                             | 209.0                                         | 2.9                                 | 5                                      |
| P6SMBJ150C                       | EL                        | 150.0                                       | 167.00                                       | 211.50                                       | 1                             | 268.0                                         | 2.2                                 | 5                                      |
| P6SMBJ150CA                      | EM                        | 150.0                                       | 167.00                                       | 192.50                                       | 1                             | 243.0                                         | 2.5                                 | 5                                      |
| P6SMBJ160C                       | EN                        | 160.0                                       | 178.00                                       | 226.00                                       | 1                             | 287.0                                         | 2.1                                 | 5                                      |
| P6SMBJ160CA                      | EP                        | 160.0                                       | 178.00                                       | 205.00                                       | 1                             | 259.0                                         | 2.3                                 | 5                                      |
| P6SMBJ170C                       | EQ                        | 170.0                                       | 189.00                                       | 239.50                                       | 1                             | 304.0                                         | 2.0                                 | 5                                      |
| P6SMBJ170CA                      | ER                        | 170.0                                       | 189.00                                       | 217.50                                       | 1                             | 275.0                                         | 2.2                                 | 5                                      |