

**SURFACE MOUNT GPP  
TRANSIENT VOLTAGE SUPPRESSOR  
600 WATT PEAK POWER 5.0 WATTS STEADY STATE**

**FEATURES**

- \* Peak pulse power:600 W (10/1000  $\mu$ s),4 kW (8/20  $\mu$ s)
- \* Plastic package has underwriters laboratory
- \* Glass passivated chip construction
- \* 600 watt surge capability at 1ms
- \* Excellent clamping capability
- \* Low zener impedance
- \* Fast response time
- \* P/N suffix V means AEC-Q101 qualified, e.g:SMBJ5.0V
- \* P/N suffix V means Halogen-free

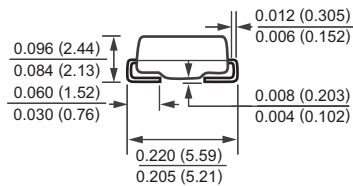
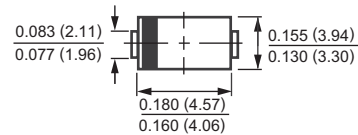
Ratings at 25 °C ambient temperature unless otherwise specified.

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.



**DO-214AA**



Dimensions in inches and (millimeters)

**DEVICES FOR BIPOLAR APPLICATIONS**

For Bidirectional use C or CA suffix for types SMBJ5.0 thru SMBJ550

Electrical characteristics apply in both direction

**MAXIMUM RATINGS** (At TA = 25°C unless otherwise noted)

| RATINGS   | SYMBOL                            | VALUE        | UNITS              |
|---|-----------------------------------|--------------|--------------------|
| Peak Power Dissipation with a 10/1000uS (Note 1,2, Fig.1)   | PPPM                              | Minimum 600  | Watts              |
| Peak Pulse Current with a 10/1000uS waveform ( Note 1, Fig.3 )  | I <sub>PPM</sub>                  | SEE TABLE 1  | Amps               |
| Steady State Power Dissipation at TL = 75°C (Note 2)  | P <sub>M(AV)</sub>                | 5.0          | Watts              |
| Peak Forward Surge Current 8.3mS single half sine-wave superimposed on rated load (JEDEC method) (Note 2,3) unidirectional only | I <sub>FSM</sub>                  | 100          | Amps               |
| Typical Current Squared Time  | I <sup>2</sup> t                  | 41.5         | A <sup>2</sup> Sec |
| Typical Thermal Resistance (Note 1)   | R $\theta$ JA                     | 55           | °C/W               |
| Typical Thermal Resistance (Note 1)   | R $\theta$ JL                     | 5            | °C/W               |
| Maximum Instantaneous Forward Voltage at 50A for unidirectional only (Note 3,4)   | V <sub>F</sub>                    | SEE NOTE 5   | Volts              |
| Operating and Storage Temperature Range   | T <sub>J</sub> , T <sub>STG</sub> | -55 to + 150 | °C                 |

- NOTES : 1. Non-repetitive current pulse, per Fig.3 and derated above TA = 25°C per Fig.2.  
 2. Mounted on 0.2 X 0.2( 5.0 X 5.0mm ) copper pad to each terminal.  
 3. Lead temperature at TL = 25°C  
 4. Measured on 8.3mS single half sine-wave duty cycle = 4 pulses per minute maximum.  
 5. V<sub>F</sub> = 3.5V on TFMBJ-5.0 thru TFMBJ-90 devices and V<sub>F</sub> = 5.0V on TFMBJ-100 thru TFMBJ-550 devices.  
 6. Thermal Resistance : Mounted on PCB.

## RATING AND CHARACTERISTIC CURVES ( SMBJ5.0 THRU SMBJ550CA )



## RATING AND CHARACTERISTIC CURVES ( SMBJ5.0 THRU SMBJ550CA )

FIG. 7 - RELATIVE VARIATION OF THERMAL IMPEDANCE  
JUNCTION TO AMBIENT VERSUS PULSE DURATION



## TRANSIENT VOLTAGE SUPPRESSORS

600W SERIES TVS DIODES / DO-214AA ( CASE 3 ) 600W

| Rectron Industry No. | Rectron House No. | Breakdown Voltage |      |          | Reverse Stand off Voltage VWM (Volts) | Maximum Reverse Leakage at VWM ID(uA) | Maximum Peak Pulse Current IPPM (Amps) | Maximum Clamping Voltage at IPPM VC (Volts) |
|----------------------|-------------------|-------------------|------|----------|---------------------------------------|---------------------------------------|--|---|
|                      |                   | VBR (Volts)       |      | @IT (mA) |                                       |                                       |  |   |
|                      |                   | MIN.              | MAX. |          |                                       |                                       |  |   |
| SMBJ5.0              | TFMBJ5.0          | 6.40              | 7.82 | 10       | 5.0                                   | 800.0                                 | 62.5                                   | 9.6   |
| SMBJ5.0A             | TFMBJ5.0A         | 6.40              | 7.07 | 10       | 5.0                                   | 800.0                                 | 65.2                                   | 9.2   |
| SMBJ6.0              | TFMBJ6.0          | 6.67              | 8.15 | 10       | 6.0                                   | 800.0                                 | 52.6                                   | 11.4  |
| SMBJ6.0A             | TFMBJ6.0A         | 6.67              | 7.37 | 10       | 6.0                                   | 800.0                                 | 58.3                                   | 10.3  |
| SMBJ6.5              | TFMBJ6.5          | 7.22              | 8.82 | 10       | 6.5                                   | 500.0                                 | 48.8                                   | 12.3  |
| SMBJ6.5A             | TFMBJ6.5A         | 7.22              | 7.98 | 10       | 6.5                                   | 500.0                                 | 53.6                                   | 11.2  |
| SMBJ7.0              | TFMBJ7.0          | 7.78              | 9.51 | 10       | 7.0                                   | 200.0                                 | 45.1                                   | 13.3  |
| SMBJ7.0A             | TFMBJ7.0A         | 7.78              | 8.60 | 10       | 7.0                                   | 200.0                                 | 50.0                                   | 12.0  |
| SMBJ7.5              | TFMBJ7.5          | 8.33              | 10.2 | 1.0      | 7.5                                   | 100.0                                 | 42.0                                   | 14.3  |
| SMBJ7.5A             | TFMBJ7.5A         | 8.33              | 9.21 | 1.0      | 7.5                                   | 100.0                                 | 46.5                                   | 12.9  |
| SMBJ8.0              | TFMBJ8.0          | 8.89              | 10.9 | 1.0      | 8.0                                   | 50.0                                  | 40.0                                   | 15.0  |
| SMBJ8.0A             | TFMBJ8.0A         | 8.89              | 9.83 | 1.0      | 8.0                                   | 50.0                                  | 44.1                                   | 13.6  |
| SMBJ8.5              | TFMBJ8.5          | 9.44              | 11.5 | 1.0      | 8.5                                   | 20.0                                  | 37.7                                   | 15.9  |
| SMBJ8.5A             | TFMBJ8.5A         | 9.44              | 10.4 | 1.0      | 8.5                                   | 20.0                                  | 41.7                                   | 14.4  |
| SMBJ9.0              | TFMBJ9.0          | 10.0              | 12.2 | 1.0      | 9.0                                   | 10.0                                  | 35.5                                   | 16.9  |
| SMBJ9.0A             | TFMBJ9.0A         | 10.0              | 11.1 | 1.0      | 9.0                                   | 10.0                                  | 39.0                                   | 15.4  |
| SMBJ10               | TFMBJ10           | 11.1              | 13.6 | 1.0      | 10.0                                  | 5.0                                   | 31.9                                   | 18.8  |
| SMBJ10A              | TFMBJ10A          | 11.1              | 12.3 | 1.0      | 10.0                                  | 5.0                                   | 35.3                                   | 17.0  |
| SMBJ11               | TFMBJ11           | 12.2              | 14.9 | 1.0      | 11.0                                  | 1.0                                   | 29.9                                   | 20.1  |
| SMBJ11A              | TFMBJ11A          | 12.2              | 13.5 | 1.0      | 11.0                                  | 1.0                                   | 33.0                                   | 18.2  |
| SMBJ12               | TFMBJ12           | 13.3              | 16.3 | 1.0      | 12.0                                  | 1.0                                   | 27.3                                   | 22.0  |
| SMBJ12A              | TFMBJ12A          | 13.3              | 14.7 | 1.0      | 12.0                                  | 1.0                                   | 30.2                                   | 19.9  |
| SMBJ13               | TFMBJ13           | 14.4              | 17.6 | 1.0      | 13.0                                  | 1.0                                   | 25.2                                   | 23.8  |
| SMBJ13A              | TFMBJ13A          | 14.4              | 15.9 | 1.0      | 13.0                                  | 1.0                                   | 27.9                                   | 21.5  |
| SMBJ14               | TFMBJ14           | 15.6              | 19.1 | 1.0      | 14.0                                  | 1.0                                   | 23.3                                   | 25.8  |
| SMBJ14A              | TFMBJ14A          | 15.6              | 17.2 | 1.0      | 14.0                                  | 1.0                                   | 25.9                                   | 23.2  |
| SMBJ15               | TFMBJ15           | 16.7              | 20.4 | 1.0      | 15.0                                  | 1.0                                   | 22.3                                   | 26.9  |
| SMBJ15A              | TFMBJ15A          | 16.7              | 18.5 | 1.0      | 15.0                                  | 1.0                                   | 24.6                                   | 24.4  |
| SMBJ16               | TFMBJ16           | 17.8              | 21.8 | 1.0      | 16.0                                  | 1.0                                   | 20.8                                   | 28.8  |
| SMBJ16A              | TFMBJ16A          | 17.8              | 19.7 | 1.0      | 16.0                                  | 1.0                                   | 23.1                                   | 26.0  |
| SMBJ17               | TFMBJ17           | 18.9              | 23.1 | 1.0      | 17.0                                  | 1.0                                   | 19.7                                   | 30.5  |
| SMBJ17A              | TFMBJ17A          | 18.9              | 20.9 | 1.0      | 17.0                                  | 1.0                                   | 21.7                                   | 27.6  |
| SMBJ18               | TFMBJ18           | 20.0              | 24.4 | 1.0      | 18.0                                  | 1.0                                   | 18.6                                   | 32.2  |
| SMBJ18A              | TFMBJ18A          | 20.0              | 22.1 | 1.0      | 18.0                                  | 1.0                                   | 20.5                                   | 29.2  |
| SMBJ20               | TFMBJ20           | 22.2              | 27.1 | 1.0      | 20.0                                  | 1.0                                   | 16.8                                   | 35.8  |
| SMBJ20A              | TFMBJ20A          | 22.2              | 24.5 | 1.0      | 20.0                                  | 1.0                                   | 18.5                                   | 32.4  |
| SMBJ22               | TFMBJ22           | 24.4              | 29.8 | 1.0      | 22.0                                  | 1.0                                   | 15.2                                   | 39.4  |
| SMBJ22A              | TFMBJ22A          | 24.4              | 26.9 | 1.0      | 22.0                                  | 1.0                                   | 16.9                                   | 35.5  |
| SMBJ24               | TFMBJ24           | 26.7              | 32.6 | 1.0      | 24.0                                  | 1.0                                   | 14.0                                   | 43.0  |
| SMBJ24A              | TFMBJ24A          | 26.7              | 29.5 | 1.0      | 24.0                                  | 1.0                                   | 15.4                                   | 38.9  |
| SMBJ26               | TFMBJ26           | 28.9              | 35.3 | 1.0      | 26.0                                  | 1.0                                   | 12.9                                   | 46.6  |
| SMBJ26A              | TFMBJ26A          | 28.9              | 31.9 | 1.0      | 26.0                                  | 1.0                                   | 14.3                                   | 42.1  |
| SMBJ28               | TFMBJ28           | 31.1              | 38.0 | 1.0      | 28.0                                  | 1.0                                   | 12.0                                   | 50.0  |
| SMBJ28A              | TFMBJ28A          | 31.1              | 34.4 | 1.0      | 28.0                                  | 1.0                                   | 13.2                                   | 45.4  |
| SMBJ30               | TFMBJ30           | 33.3              | 40.7 | 1.0      | 30.0                                  | 1.0                                   | 11.2                                   | 53.5  |
| SMBJ30A              | TFMBJ30A          | 33.3              | 36.8 | 1.0      | 30.0                                  | 1.0                                   | 12.4                                   | 48.4  |
| SMBJ33               | TFMBJ33           | 36.7              | 44.9 | 1.0      | 33.0                                  | 1.0                                   | 10.2                                   | 59.0  |
| SMBJ33A              | TFMBJ33A          | 36.7              | 40.6 | 1.0      | 33.0                                  | 1.0                                   | 11.3                                   | 53.3  |
| SMBJ36               | TFMBJ36           | 40.0              | 48.9 | 1.0      | 36.0                                  | 1.0                                   | 9.3                                    | 64.3  |
| SMBJ36A              | TFMBJ36A          | 40.0              | 44.2 | 1.0      | 36.0                                  | 1.0                                   | 10.3                                   | 58.1  |

## TRANSIENT VOLTAGE SUPPRESSORS

600W SERIES TVS DIODES / DO-214AA ( CASE 3 ) 600W

| Rectron Industry No. | Rectron House No. | Breakdown Voltage |      |          | Reverse Stand off Voltage $V_{WM}$ (Volts) | Maximum Reverse Leakage at $V_{WM}$ $I_D$ ( $\mu$ A) | Maximum Peak Pulse Current IPPM (Amps) | Maximum Clamping Voltage at IPPM $V_C$ (Volts) |
|----------------------|-------------------|-------------------|------|----------|--|--|--|--|
|                      |                   | VBR (Volts)       |      | @IT (mA) |  |  |  |  |
|                      |                   | MIN.              | MAX. |          |  |  |  |  |
| SMBJ40               | TFMBJ40           | 44.4              | 54.3 | 1.0      | 40   | 1.0  | 8.4                                    | 71.4   |
| SMBJ40A              | TFMBJ40A          | 44.4              | 49.1 | 1.0      | 40   | 1.0  | 9.3                                    | 64.5   |
| SMBJ43               | TFMBJ43           | 47.8              | 58.4 | 1.0      | 43   | 1.0  | 7.8                                    | 76.7   |
| SMBJ43A              | TFMBJ43A          | 47.8              | 52.8 | 1.0      | 43   | 1.0  | 8.6                                    | 69.4   |
| SMBJ45               | TFMBJ45           | 50.0              | 61.1 | 1.0      | 45   | 1.0  | 7.5                                    | 80.3   |
| SMBJ45A              | TFMBJ45A          | 50.0              | 55.3 | 1.0      | 45   | 1.0  | 8.3                                    | 72.7   |
| SMBJ48               | TFMBJ48           | 53.3              | 65.1 | 1.0      | 48   | 1.0  | 7.0                                    | 85.5   |
| SMBJ48A              | TFMBJ48A          | 53.3              | 58.9 | 1.0      | 48   | 1.0  | 7.8                                    | 77.4   |
| SMBJ51               | TFMBJ51           | 56.7              | 69.3 | 1.0      | 51   | 1.0  | 6.6                                    | 91.1   |
| SMBJ51A              | TFMBJ51A          | 56.7              | 62.7 | 1.0      | 51   | 1.0  | 7.3                                    | 82.4   |
| SMBJ54               | TFMBJ54           | 60.0              | 73.3 | 1.0      | 54   | 1.0  | 6.2                                    | 96.3   |
| SMBJ54A              | TFMBJ54A          | 60.0              | 66.3 | 1.0      | 54   | 1.0  | 6.9                                    | 87.1   |
| SMBJ58               | TFMBJ58           | 64.4              | 78.7 | 1.0      | 58   | 1.0  | 5.8                                    | 103  |
| SMBJ58A              | TFMBJ58A          | 64.4              | 71.2 | 1.0      | 58   | 1.0  | 6.4                                    | 93.6   |
| SMBJ60               | TFMBJ60           | 66.7              | 81.5 | 1.0      | 60   | 1.0  | 5.6                                    | 107  |
| SMBJ60A              | TFMBJ60A          | 66.7              | 73.7 | 1.0      | 60   | 1.0  | 6.2                                    | 96.8   |
| SMBJ64               | TFMBJ64           | 71.1              | 86.9 | 1.0      | 64   | 1.0  | 5.3                                    | 114  |
| SMBJ64A              | TFMBJ64A          | 71.1              | 78.6 | 1.0      | 64   | 1.0  | 5.8                                    | 103  |
| SMBJ70               | TFMBJ70           | 77.8              | 95.1 | 1.0      | 70   | 1.0  | 4.8                                    | 125  |
| SMBJ70A              | TFMBJ70A          | 77.8              | 86.0 | 1.0      | 70   | 1.0  | 5.3                                    | 113  |
| SMBJ75               | TFMBJ75           | 83.3              | 102  | 1.0      | 75   | 1.0  | 4.5                                    | 134  |
| SMBJ75A              | TFMBJ75A          | 83.3              | 92.1 | 1.0      | 75   | 1.0  | 5.0                                    | 121  |
| SMBJ78               | TFMBJ78           | 86.7              | 106  | 1.0      | 78   | 1.0  | 4.3                                    | 139  |
| SMBJ78A              | TFMBJ78A          | 86.7              | 95.8 | 1.0      | 78   | 1.0  | 4.8                                    | 126  |
| SMBJ85               | TFMBJ85           | 94.4              | 115  | 1.0      | 85   | 1.0  | 4.0                                    | 151  |
| SMBJ85A              | TFMBJ85A          | 94.4              | 104  | 1.0      | 85   | 1.0  | 4.4                                    | 137  |
| SMBJ90               | TFMBJ90           | 100               | 122  | 1.0      | 90   | 1.0  | 3.8                                    | 160  |
| SMBJ90A              | TFMBJ90A          | 100               | 111  | 1.0      | 90   | 1.0  | 4.1                                    | 146  |
| SMBJ100              | TFMBJ100          | 111               | 136  | 1.0      | 100  | 1.0  | 3.4                                    | 179  |
| SMBJ100A             | TFMBJ100A         | 111               | 123  | 1.0      | 100  | 1.0  | 3.7                                    | 162  |
| SMBJ110              | TFMBJ110          | 122               | 149  | 1.0      | 110  | 1.0  | 3.1                                    | 196  |
| SMBJ110A             | TFMBJ110A         | 122               | 135  | 1.0      | 110  | 1.0  | 3.4                                    | 177  |
| SMBJ120              | TFMBJ120          | 133               | 163  | 1.0      | 120  | 1.0  | 2.8                                    | 214  |
| SMBJ120A             | TFMBJ120A         | 133               | 147  | 1.0      | 120  | 1.0  | 3.1                                    | 193  |
| SMBJ130              | TFMBJ130          | 144               | 176  | 1.0      | 130  | 1.0  | 2.6                                    | 231  |
| SMBJ130A             | TFMBJ130A         | 144               | 159  | 1.0      | 130  | 1.0  | 2.9                                    | 209  |
| SMBJ150              | TFMBJ150          | 167               | 204  | 1.0      | 150  | 1.0  | 2.2                                    | 268  |
| SMBJ150A             | TFMBJ150A         | 167               | 185  | 1.0      | 150  | 1.0  | 2.5                                    | 243  |
| SMBJ160              | TFMBJ160          | 178               | 218  | 1.0      | 160  | 1.0  | 2.1                                    | 287  |
| SMBJ160A             | TFMBJ160A         | 178               | 197  | 1.0      | 160  | 1.0  | 2.3                                    | 259  |
| SMBJ170              | TFMBJ170          | 189               | 231  | 1.0      | 170  | 1.0  | 2.0                                    | 304  |
| SMBJ170A             | TFMBJ170A         | 189               | 209  | 1.0      | 170  | 1.0  | 2.2                                    | 275  |

- Notes :
1.  $V_{BR}$  measured after  $I_T$  applied for 300ms.  $I_T$  = square pulse or equivalent.
  2. For bidirectional use C or CA suffixs for all types (ex. SMBJ5.0C,SMBJ170CA) electrical characteristics apply in both directions.
  3. For bidirectional types having  $V_{WM}$  of 10 volts and less, the  $I_D$  limit is doubled.
  4. All devices UL listed file# E211196.



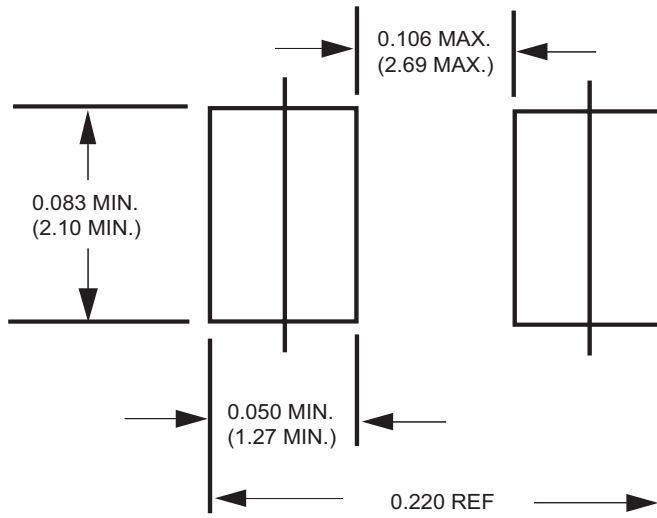
## TRANSIENT VOLTAGE SUPPRESSORS

600W SERIES TVS DIODES / DO-214AA ( CASE 3 ) 600W

| Rectron Industry No. | Rectron House No. | Breakdown Voltage |      |             | Reverse Stand off Voltage $V_{WM}$ (Volts) | Maximum Reverse Leakage at $V_{WM}$ $I_D$ ( $\mu$ A) | Maximum Peak Pulse Current IPPM (Amps) | Maximum Clamping Voltage at IPPM $V_C$ (Volts) |
|----------------------|-------------------|-------------------|------|-------------|--|--|--|--|
|                      |                   | $V_{BR}$ (Volts)  |      | $@I_T$ (mA) |  |  |  |  |
|                      |                   | MIN.              | MAX. |             |  |  |  |  |
| SMBJ180A             | TFMBJ180A         | 201               | 222  | 1.0         | 180  | 1.0  | 2.1                                    | 292  |
| SMBJ190A             | TFMBJ190A         | 209               | 243  | 1.0         | 190  | 1.0  | 2.0                                    | 308  |
| SMBJ200A             | TFMBJ200A         | 224               | 247  | 1.0         | 200  | 1.0  | 1.9                                    | 324  |
| SMBJ210A             | TFMBJ210A         | 231               | 268  | 1.0         | 210  | 1.0  | 1.8                                    | 340  |
| SMBJ220A             | TFMBJ220A         | 246               | 272  | 1.0         | 220  | 1.0  | 1.7                                    | 358  |
| SMBJ250A             | TFMBJ250A         | 279               | 309  | 1.0         | 250  | 1.0  | 1.5                                    | 405  |
| SMBJ300A             | TFMBJ300A         | 335               | 371  | 1.0         | 300  | 1.0  | 1.3                                    | 486  |
| SMBJ350A             | TFMBJ350A         | 391               | 432  | 1.0         | 350  | 1.0  | 1.1                                    | 567  |
| SMBJ400A             | TFMBJ400A         | 447               | 494  | 1.0         | 400  | 1.0  | 0.9                                    | 648  |
| SMBJ440A             | TFMBJ440A         | 492               | 543  | 1.0         | 440  | 1.0  | 0.9                                    | 713  |
| SMBJ480A             | TFMBJ480A         | 536               | 593  | 1.0         | 480  | 1.0  | 0.8                                    | 750  |
| SMBJ520A             | TFMBJ520A         | 578               | 640  | 1.0         | 520  | 1.0  | 0.8                                    | 762  |
| SMBJ550A             | TFMBJ550A         | 615               | 680  | 1.0         | 550  | 1.0  | 0.7                                    | 860  |

- Notes :
1.  $V_{BR}$  measured after  $I_T$  applied for 300ms.  $I_T$  = square pulse or equivalent.
  2. For bidirectional use C or CA suffixs for all types (ex. SMBJ5.0C,SMBJ170CA) electrical characteristics apply in both directions.
  3. For bidirectional types having  $V_{WM}$  of 10 volts and less, the  $I_D$  limit is doubled.
  4. All devices UL listed file# E211196.

### Mounting Pad Layout



Dimensions in inches and (millimeters)

# REEL TAPING SPECIFICATIONS FOR SURFACE MOUNT DEVICES-FLAT MELF ( SMA/SMB/SMC )



Fig.: Configuration of FLAT MELF TAPING  
( SMA/SMB/SMC )

| ITEM                   | SYMBOL | DO214AC (SMA) mm(inch)    | DO214AA (SMB) mm(inch)    | DO214AB (SMC) mm(inch)    |
|------------------------|--------|---------------------------|---------------------------|---------------------------|
| Carrier width          | A      | 2.6 ± 0.15 (.102 ± .006)  | 3.65 ± 0.1 (.144 ± .004)  | 6.0 ± 0.1 (.236 ± .004)   |
| Carrier length         | B      | 5.15 ± 0.15 (.203 ± .006) | 5.69 ± 0.1 (.224 ± .004)  | 8.30 ± 0.1 (.327 ± .004)  |
| Carrier depth          | C      | 2.3 ± 0.15 (.091 ± .006)  | 2.67 ± 0.1 (.105 ± .004)  | 2.5 ± 0.1 (.098 ± .004)   |
| Sprocket hole          | d      | 1.5 ± 0.1 (.059 ± .004)   | 1.5 ± 0.1 (.059 ± .004)   | 1.5 ± 0.1 (.059 ± .004)   |
| Reel outside diameter  | D      | 178 ± 2.0 (7.0 ± .079)    | 178 ± 2.0 (7.0 ± .079)    | 178 ± 2.0 (7.0 ± .079)    |
| Reel inner diameter    | D1     | 50 Min.                   | 50 Min.                   | 50 Min.                   |
| Feed hole diameter     | D2     | 13 ± 0.5 (.512 ± .020)    | 13 ± 0.5 (.512 ± .020)    | 13 ± 0.5 (.512 ± .020)    |
| Sprocket hole position | E      | 1.5 ± 0.1 (.059 ± .004)   | 1.5 ± 0.1 (.059 ± .004)   | 1.5 ± 0.1 (.059 ± .004)   |
| Punch hole position    | F      | 5.65 ± 0.05 (.222 ± .002) | 5.65 ± 0.05 (.222 ± .002) | 7.65 ± 0.05 (.301 ± .002) |
| Punch hole pitch       | P      | 4.0 ± 0.1 (.157 ± .004)   | 8.0 ± 0.1 (.315 ± .004)   | 8.0 ± 0.1 (.315 ± .004)   |
| Sprocket hole pitch    | P0     | 4.0 ± 0.1 (.157 ± .004)   | 4.0 ± 0.1 (.157 ± .004)   | 4.0 ± 0.1 (.157 ± .004)   |
| Embossment center      | P1     | 2.0 ± 0.1 (.079 ± .004)   | 2.0 ± 0.1 (.079 ± .004)   | 4.0 ± 0.1 (.157 ± .004)   |
| Total tape thickness   | T      | 0.30 ± .05 (.012 ± .002)  | 0.6 Max.                  | 0.6 Max.                  |
| Tape width             | W      | 12.0 ± 0.2 (.472 ± .008)  | 12.0 ± 0.2 (.472 ± .008)  | 16.0 ± 0.2 (.630 ± .008)  |
| Reel width             | W1     | 16.8 ± 2.0 (.661 ± .079)  | 16.8 ± 2.0 (.661 ± .079)  | 24.0 ± 2.0 (.945 ± .079)  |

Notes: 1.Devices are packed in accordance with EIA standard RS-481-A and specification given above.  
2.Available on 7 inch ( 1500 ct. ) or 13 inch ( 5000 ct. ) diameter reels.



## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### REEL PACK

| PACKAGE | PACKING CODE | EA PER REEL | EA PER INNER BOX | COMPONENT SPACE (mm) | TAPE SPACE (mm) | REEL DIA (mm) | CARTON SIZE (mm) | EA PER CARTON | GROSS WEIGHT(Kg) |
|---------|--------------|-------------|------------------|----------------------|-----------------|---------------|------------------|---------------|------------------|
| SMB     | -W/-T        | 3,000       | 6,000            | ---                  | ---             | 330           | 360*355*360      | 48,000        | 13.90            |



## Attachment information about SMBJXXX

### 1. Internal Circuit



### 2. Marking on the body

