

# SMBFJ\*\*\* CA Series

## SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

### VOLTAGE 5.0 TO 250 Volts

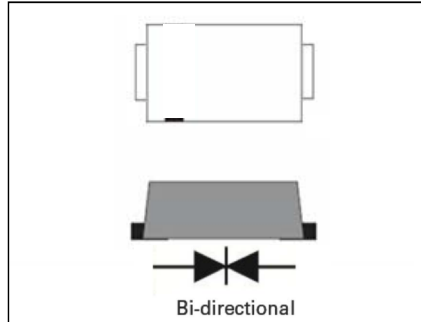
### 600 Watt Peak Pulse Power

#### FEATURES

- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- \* 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

**Terminals:** Plated leads, solderable per

- \* Typical IR less than 1mA above 10V
- \* High temperature soldering guaranteed:  
260°C/10 seconds,



we declare that the material of product is halogen free (green epoxy compound).

#### MECHANICAL DATA

**Case:** JEDEC SMB-FL molded plastic

**Terminals:** Plated leads, solderable per MIL-STD-202, Method 208

**Polarity:** Whithout Color band denoted cathode

**Mounting Position:** Any

**Weight:** 0.066 gram

#### 1.DEVICES FOR BIPOLAR APPLICATIONS

For Bidirectional use C or CA Suffix for types SMBFJ5.0CA thru types SMBFJ250CA

Electrical characteristics apply in both directions.marking code is all type.

#### MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| RATING   | SYMBOL      | VALUE       | UNITS |
|--|-------------|-------------|-------|
| Peak Power Dissipation at $T_A=25^\circ\text{C}$ , $T_P=1\text{ms}$ (Note 1) | $P_{PPM}$   | Minimum600  | Watts |
| Steady State Power Dissipation at $T_L=75^\circ\text{C}$                     | $P_{M(AV)}$ | 3.0         | Watts |
| Operating Temperature Range  | $T_J$       | -55 to +150 | °C    |
| Storage Temperature Range  | $T_{STG}$   | -55 to +150 | °C    |

NOTES:

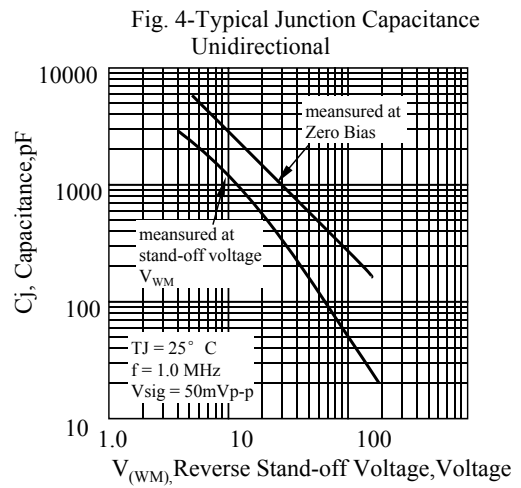
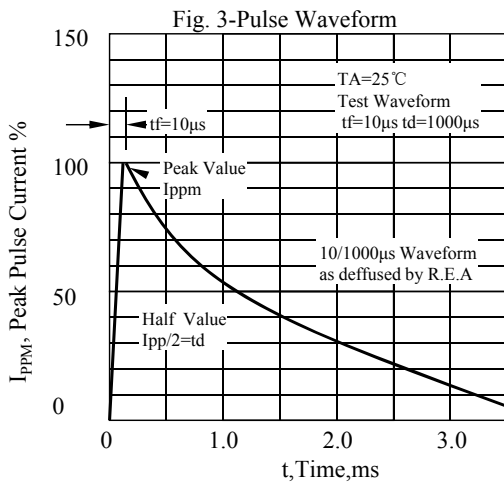
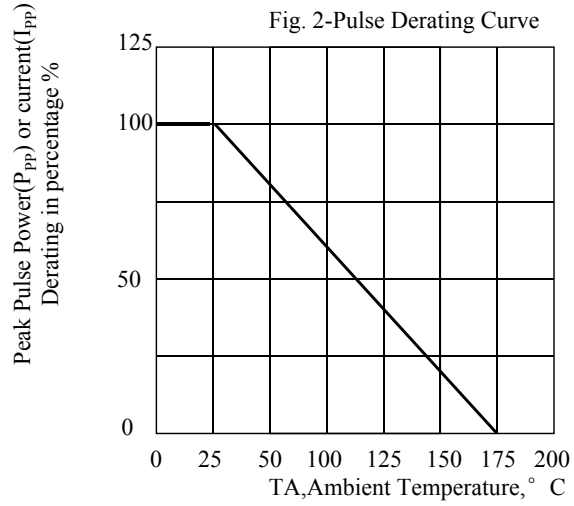
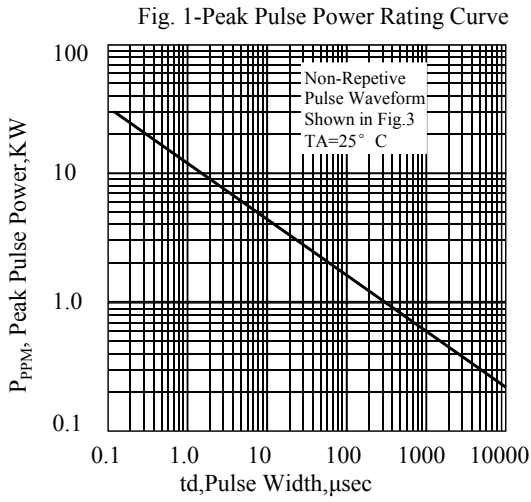
1. Non-repetitive current pulse, per Fig. 3 and derated above  $T_A=25^\circ\text{C}$  per Fig. 2.

## SMBFJ\*\*\* CA Series

| Bi-Directional Part Number | Device marking code | Reverse Stand-off Voltage VRWM (V) | Breakdown Voltage VBR (V) Min. @IT | Breakdown Voltage VBR (V) Max. @IT | Test Current IT (mA) | Maximum Clamping Voltage @IPP VC (V) | Peak Pulse Current Ipp (A) | Reverse Leakage @VRWM IR (uA) |
|----------------------------|---------------------|------------------------------------|------------------------------------|------------------------------------|----------------------|--------------------------------------|----------------------------|-------------------------------|
| SMBFJ5.0CA                 | SMBFJ5.0CA          | 5.00                               | 6.40                               | 7.00                               | 10.00                | 9.20                                 | 65.30                      | 800                           |
| SMBFJ6.0CA                 | SMBFJ6.0CA          | 6.00                               | 6.67                               | 7.37                               | 10.00                | 10.30                                | 58.30                      | 800                           |
| SMBFJ6.5CA                 | SMBFJ6.5CA          | 6.50                               | 7.22                               | 7.98                               | 10.00                | 11.20                                | 53.60                      | 500                           |
| SMBFJ7.0CA                 | SMBFJ7.0CA          | 7.00                               | 7.78                               | 8.60                               | 10.00                | 12.00                                | 50.00                      | 200                           |
| SMBFJ7.5CA                 | SMBFJ7.5CA          | 7.50                               | 8.33                               | 9.21                               | 1.00                 | 12.90                                | 46.60                      | 100                           |
| SMBFJ8.0CA                 | SMBFJ8.0CA          | 8.00                               | 8.89                               | 9.83                               | 1.00                 | 13.60                                | 44.20                      | 50                            |
| SMBFJ8.5CA                 | SMBFJ8.5CA          | 8.50                               | 9.44                               | 10.40                              | 1.00                 | 14.40                                | 41.70                      | 20                            |
| SMBFJ9.0CA                 | SMBFJ9.0CA          | 9.00                               | 10.00                              | 11.10                              | 1.00                 | 15.40                                | 39.00                      | 10                            |
| SMBFJ10CA                  | SMBFJ10CA           | 10.00                              | 11.10                              | 12.30                              | 1.00                 | 17.00                                | 35.30                      | 1                             |
| SMBFJ11CA                  | SMBFJ11CA           | 11.00                              | 12.20                              | 13.50                              | 1.00                 | 18.20                                | 33.00                      | 1                             |
| SMBFJ12CA                  | SMBFJ12CA           | 12.00                              | 13.30                              | 14.70                              | 1.00                 | 19.90                                | 30.20                      | 1                             |
| SMBFJ13CA                  | SMBFJ13CA           | 13.00                              | 14.40                              | 15.90                              | 1.00                 | 21.50                                | 28.00                      | 1                             |
| SMBFJ14CA                  | SMBFJ14CA           | 14.00                              | 15.60                              | 17.20                              | 1.00                 | 23.20                                | 25.90                      | 1                             |
| SMBFJ15CA                  | SMBFJ15CA           | 15.00                              | 16.70                              | 18.50                              | 1.00                 | 24.40                                | 24.60                      | 1                             |
| SMBFJ16CA                  | SMBFJ16CA           | 16.00                              | 17.80                              | 19.70                              | 1.00                 | 26.00                                | 23.10                      | 1                             |
| SMBFJ17CA                  | SMBFJ17CA           | 17.00                              | 18.90                              | 20.90                              | 1.00                 | 27.60                                | 21.80                      | 1                             |
| SMBFJ18CA                  | SMBFJ18CA           | 18.00                              | 20.00                              | 22.10                              | 1.00                 | 29.20                                | 20.60                      | 1                             |
| SMBFJ20CA                  | SMBFJ20CA           | 20.00                              | 22.20                              | 24.50                              | 1.00                 | 32.40                                | 18.60                      | 1                             |
| SMBFJ22CA                  | SMBFJ22CA           | 22.00                              | 24.40                              | 26.90                              | 1.00                 | 35.50                                | 16.90                      | 1                             |
| SMBFJ24CA                  | SMBFJ24CA           | 24.00                              | 26.70                              | 29.50                              | 1.00                 | 38.90                                | 15.50                      | 1                             |
| SMBFJ26CA                  | SMBFJ26CA           | 26.00                              | 28.90                              | 31.90                              | 1.00                 | 42.10                                | 14.30                      | 1                             |
| SMBFJ28CA                  | SMBFJ28CA           | 28.00                              | 31.10                              | 34.40                              | 1.00                 | 45.40                                | 13.30                      | 1                             |
| SMBFJ30CA                  | SMBFJ30CA           | 30.00                              | 33.30                              | 36.80                              | 1.00                 | 48.40                                | 12.40                      | 1                             |
| SMBFJ33CA                  | SMBFJ33CA           | 33.00                              | 36.70                              | 40.60                              | 1.00                 | 53.30                                | 11.30                      | 1                             |
| SMBFJ36CA                  | SMBFJ36CA           | 36.00                              | 40.00                              | 44.20                              | 1.00                 | 58.10                                | 10.40                      | 1                             |
| SMBFJ40CA                  | SMBFJ40CA           | 40.00                              | 44.40                              | 49.10                              | 1.00                 | 64.50                                | 9.30                       | 1                             |
| SMBFJ43CA                  | SMBFJ43CA           | 43.00                              | 47.80                              | 52.80                              | 1.00                 | 69.40                                | 8.70                       | 1                             |
| SMBFJ45CA                  | SMBFJ45CA           | 45.00                              | 50.00                              | 55.30                              | 1.00                 | 72.70                                | 8.30                       | 1                             |
| SMBFJ48CA                  | SMBFJ48CA           | 48.00                              | 53.30                              | 58.90                              | 1.00                 | 77.40                                | 7.80                       | 1                             |
| SMBFJ51CA                  | SMBFJ51CA           | 51.00                              | 56.70                              | 62.70                              | 1.00                 | 82.40                                | 7.30                       | 1                             |
| SMBFJ54CA                  | SMBFJ54CA           | 54.00                              | 60.00                              | 66.30                              | 1.00                 | 87.10                                | 6.90                       | 1                             |
| SMBFJ58CA                  | SMBFJ58CA           | 58.00                              | 64.40                              | 71.20                              | 1.00                 | 93.60                                | 6.50                       | 1                             |
| SMBFJ60CA                  | SMBFJ60CA           | 60.00                              | 66.70                              | 73.70                              | 1.00                 | 96.80                                | 6.20                       | 1                             |
| SMBFJ64CA                  | SMBFJ64CA           | 64.00                              | 71.10                              | 78.60                              | 1.00                 | 103.00                               | 5.90                       | 1                             |
| SMBFJ70CA                  | SMBFJ70CA           | 70.00                              | 77.80                              | 86.00                              | 1.00                 | 113.00                               | 5.30                       | 1                             |
| SMBFJ75CA                  | SMBFJ75CA           | 75.00                              | 83.30                              | 92.10                              | 1.00                 | 121.00                               | 5.00                       | 1                             |
| SMBFJ78CA                  | SMBFJ78CA           | 78.00                              | 86.70                              | 95.80                              | 1.00                 | 126.00                               | 4.80                       | 1                             |
| SMBFJ85CA                  | SMBFJ85CA           | 85.00                              | 94.40                              | 104.00                             | 1.00                 | 137.00                               | 4.40                       | 1                             |
| SMBFJ90CA                  | SMBFJ90CA           | 90.00                              | 100.00                             | 111.00                             | 1.00                 | 146.00                               | 4.10                       | 1                             |
| SMBFJ100CA                 | SMBFJ100CA          | 100.00                             | 111.00                             | 123.00                             | 1.00                 | 162.00                               | 3.70                       | 1                             |
| SMBFJ110CA                 | SMBFJ110CA          | 110.00                             | 122.00                             | 135.00                             | 1.00                 | 177.00                               | 3.40                       | 1                             |
| SMBFJ120CA                 | SMBFJ120CA          | 120.00                             | 133.00                             | 147.00                             | 1.00                 | 193.00                               | 3.10                       | 1                             |
| SMBFJ130CA                 | SMBFJ130CA          | 130.00                             | 144.00                             | 159.00                             | 1.00                 | 209.00                               | 2.90                       | 1                             |
| SMBFJ150CA                 | SMBFJ150CA          | 150.00                             | 167.00                             | 185.00                             | 1.00                 | 243.00                               | 2.50                       | 1                             |
| SMBFJ160CA                 | SMBFJ160CA          | 160.00                             | 178.00                             | 197.00                             | 1.00                 | 259.00                               | 2.30                       | 1                             |
| SMBFJ170CA                 | SMBFJ170CA          | 170.00                             | 189.00                             | 209.00                             | 1.00                 | 275.00                               | 2.20                       | 1                             |
| SMBFJ180CA                 | SMBFJ180CA          | 180.00                             | 198.00                             | 221.00                             | 1.00                 | 291.00                               | 2.10                       | 1                             |
| SMBFJ190CA                 | SMBFJ190CA          | 190.00                             | 209.00                             | 233.00                             | 1.00                 | 307.00                               | 2.00                       | 1                             |
| SMBFJ200CA                 | SMBFJ200CA          | 200.00                             | 220.00                             | 246.00                             | 1.00                 | 324.00                               | 1.90                       | 1                             |
| SMBFJ220CA                 | SMBFJ220CA          | 220.00                             | 246.00                             | 272.00                             | 1.00                 | 356.00                               | 1.70                       | 1                             |
| SMBFJ250CA                 | SMBFJ250CA          | 250.00                             | 279.00                             | 309.00                             | 1.00                 | 405.00                               | 1.50                       | 1                             |

## SMBFJ\*\*\* CASeries

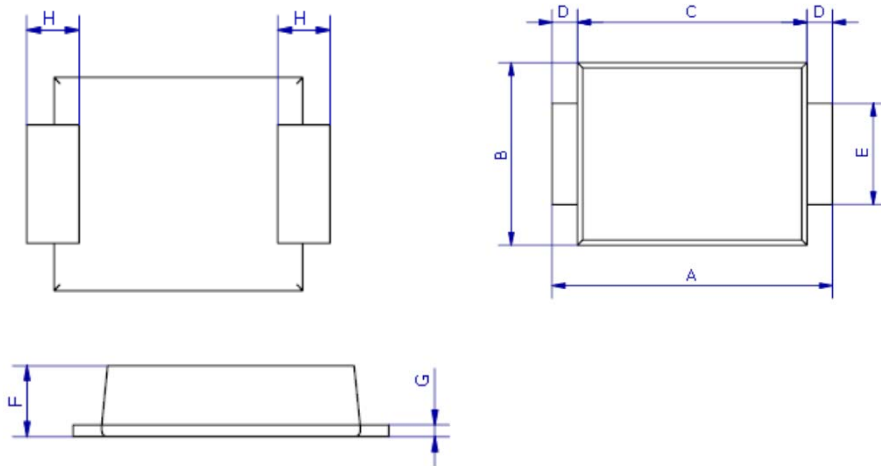
### 2.Ratings and Characteristic Curves ( TA = 25°C unless otherwise noted )



## SMBFJ\*\*\* CA Series

### 3. dimension:

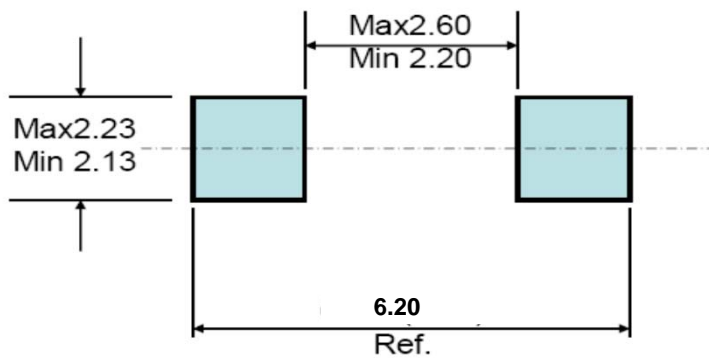
SMB-FL



| DIM | MILLIMETERS |      | INCHES   |         |
|-----|-------------|------|----------|---------|
|     | MIN         | MAX  | MIN      | MAX     |
| A   | 5.3         | 5.7  | 0.209    | 0.224   |
| B   | 3.4         | 3.8  | 0.134    | 0.150   |
| C   | 4.3         | 4.7  | 0.169    | 0.185   |
| D   | 0.45Typ     |      | 0.018Typ |         |
| E   | 1.9         | 2.1  | 0.0748   | 0.08268 |
| F   | 1.05        | 1.40 | 0.04134  | 0.05512 |
| G   | 0.2         | 0.3  | 0.00591  | 0.00984 |
| H   | 0.95Typ     |      | 0.037Typ |         |

### Mounting Pad Layout

--- SMB-FL



单击下面可查看定价，库存，交付和生命周期等信息

[>>LRC\(乐山无线电\)](#)