

**/ Descriptions**

45V                      5.0A                      SMBF

Surface Mount Schottky Barrier Rectifier, Reverse Voltage:45V,Forward Current:5.0A,SMBF thin package.

**/ Features**

Low power loss, high efficiency, High forward surge current capability, For use in low voltage, high frequency inverters, and polarity protection applications,For surface mounted applications.Halogen free product.

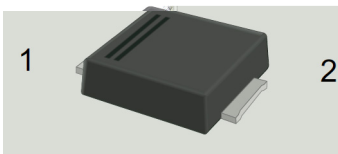
**/ Applications**

General purpose.

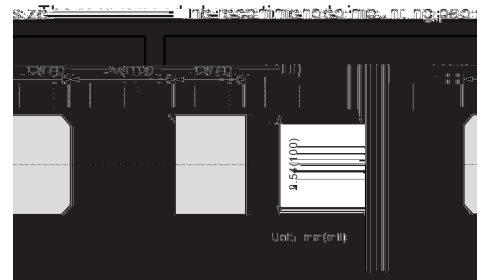
**/ Equivalent Circuit**



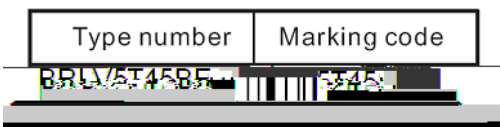
**/ Pinning**



| PIN | DESCRIPTION |
|-----|-------------|
| 1   | Cathode     |
| 2   | Anode       |



**/ Marking**



**/ Absolute Maximum Ratings(Ta=25 )**

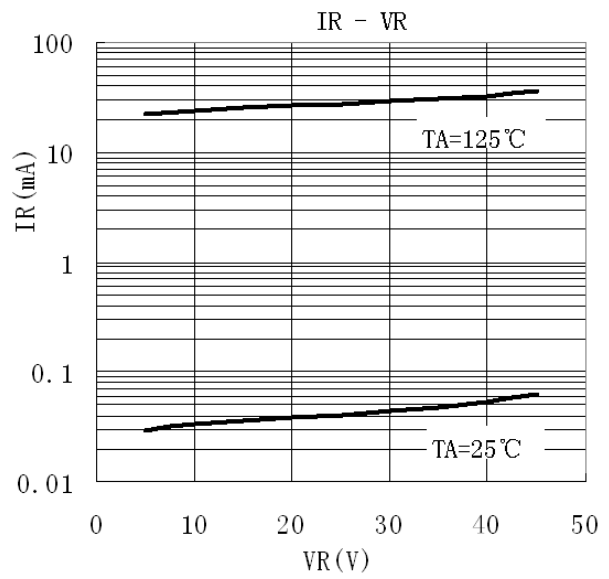
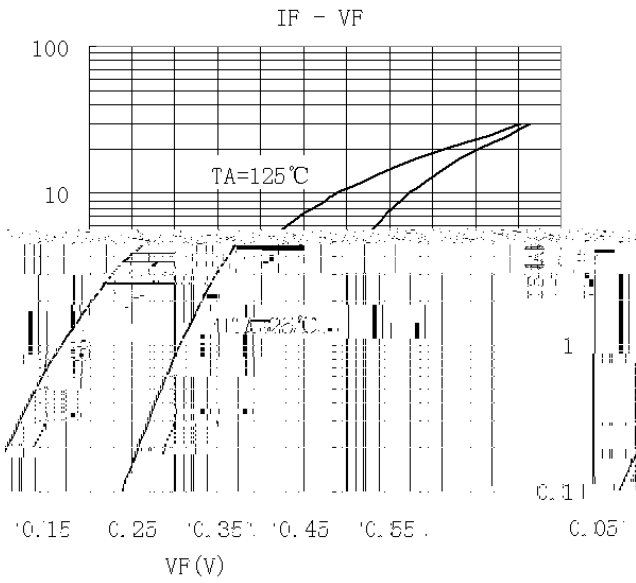
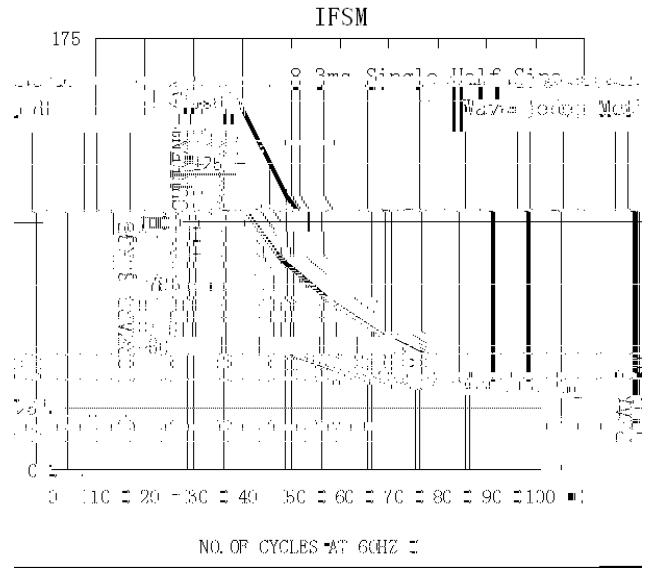
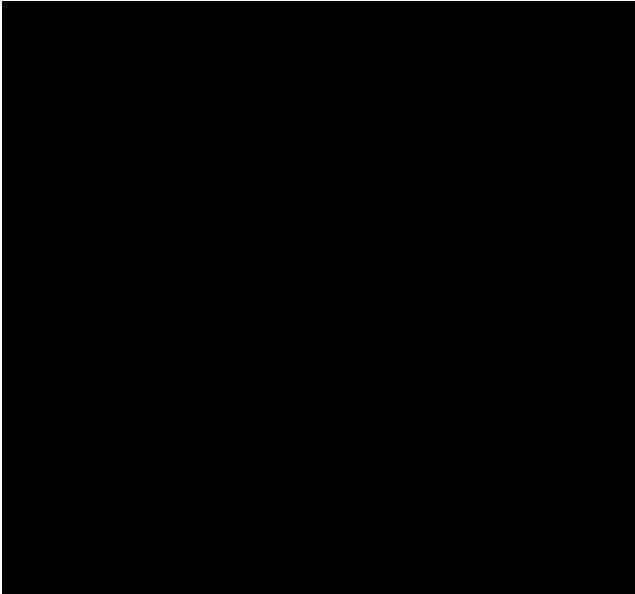
| Parameter                               | Symbol    | Rating | Unit |
|---|-----------|--------|------|
| Maximum Repetitive Peak Reverse Voltage | $V_{RRM}$ | 45     | V    |
| Maximum DC Blocking Voltage             | $V_R$     | 45     | V    |
| Maximum RMS voltage                     | $V_{RMS}$ |        |      |

**Notes:**

- 1) Mounted at 1MHz and applied reverse voltage of 4V D.C.
- 2) Mounted on a FR4 PCB, single-sided copper, mini pad.

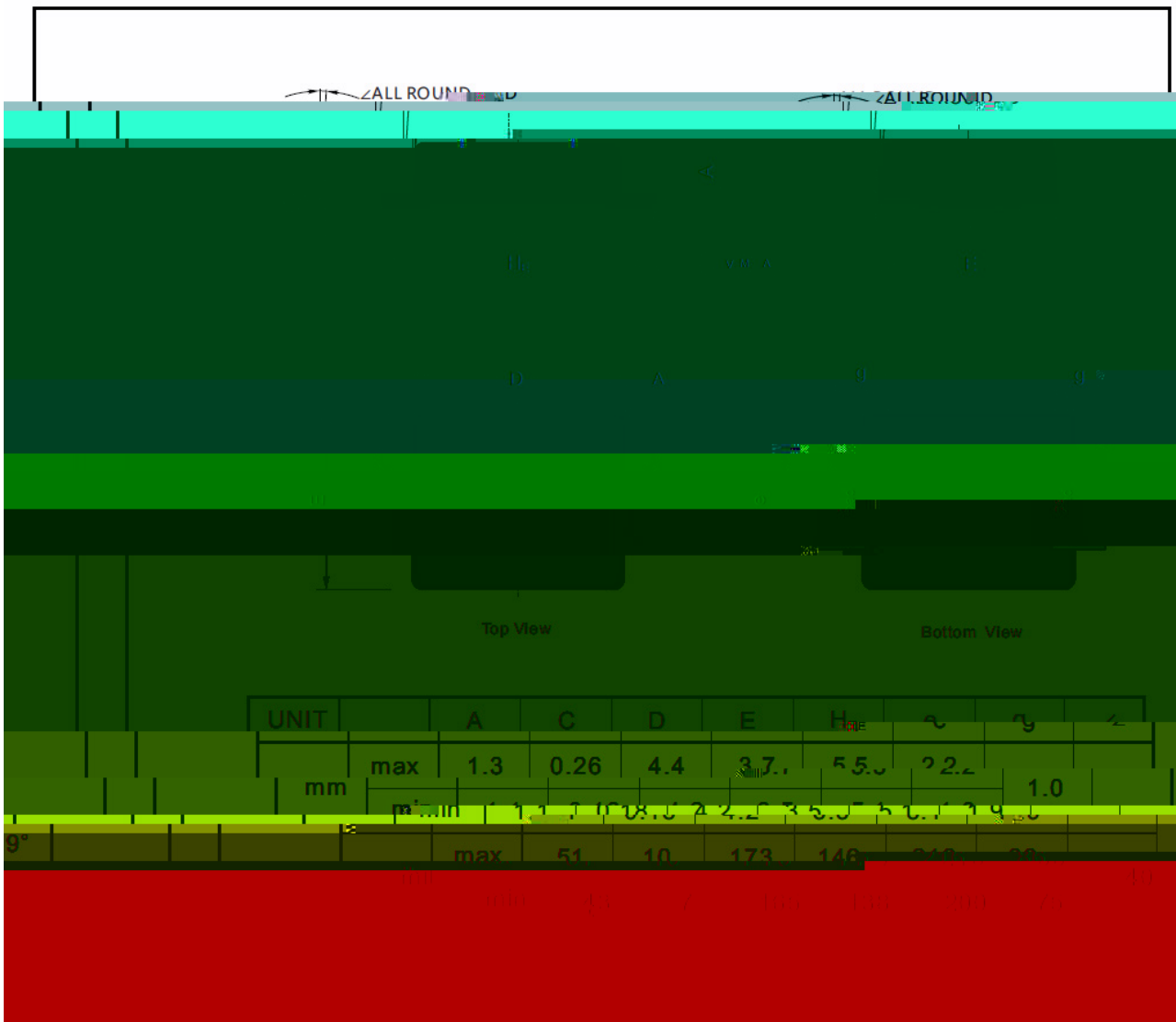
| Parameter  | Symbol   | Test condition       | Rating |      |      | Unit    |
|--|----------|----------------------|--------|------|------|---------|
|  |          |                      | MIN.   | TYP. | MAX. |         |
| Breakdown Voltage                                      | $V_{BR}$ | $I_R=0.5mA$ $T_a=25$ | 45     |      |      | V       |
| Max Instantaneous Forward Voltage                      | $V_F$    | $I_F=1.0A$ $T_a=25$  |        | 0.30 |      | V       |
|  |          | $I_F=1.0A$ $T_a=125$ |        | 0.18 |      |         |
|  |          | $I_F=5.0A$ $T_a=25$  |        | 0.39 | 0.43 |         |
|  |          | $I_F=5.0A$ $T_a=125$ |        | 0.29 |      |         |
| Maximum DC Reverse Current at Rated DC Reverse Voltage | $I_R$    | $V_R=36V$ $T_a=25$   |        | 30   |      | $\mu A$ |
|  |          | $V_R=45V$ $T_a=25$   |        |      | 210  | $\mu A$ |
|  |          | $V_R=45V$ $T_a=125$  |        | 19   |      | mA      |

/ Electrical Characteristic Curve



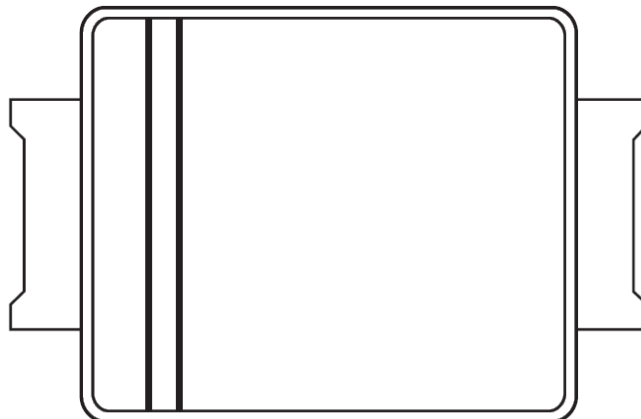
/ Package Dimensions

SMBF

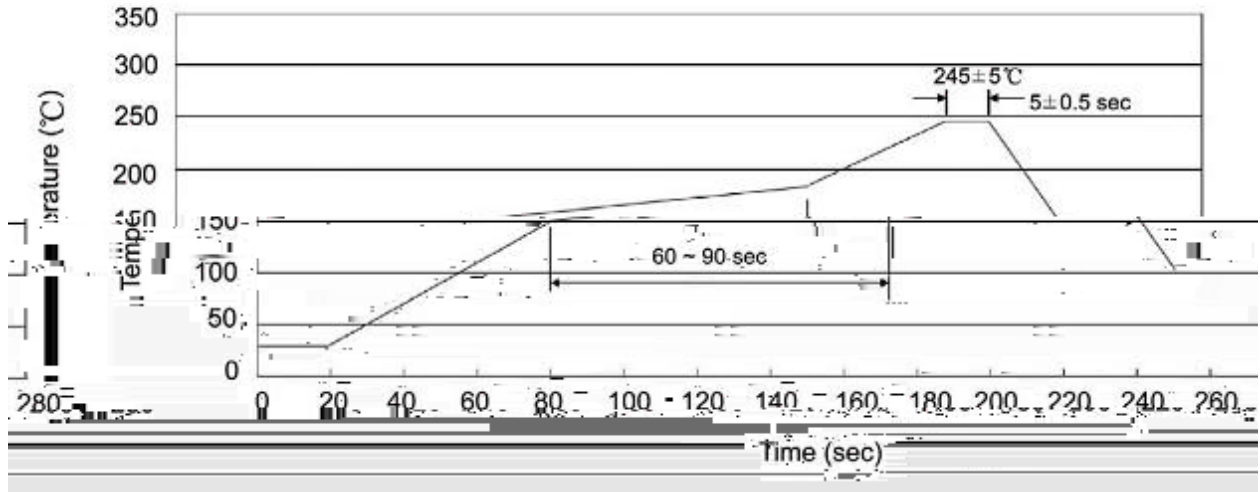


**BRLV5T45BF**  
Rev.C May.-2019

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Note:

- |   |       |     |           |        |   |
|---|-------|-----|-----------|--------|---|
| 1 | 150   | 180 | 60        | 90sec; | 1.Preheating:150~180 , Time:60~90sec.   |
| 2 | 245±5 |     | 5±0.5sec; |        | 2.Peak Temp.:245±5 , Duration:5±0.5sec. |
| 3 |       | 2   | 10        | /sec.  | 3. Cooling Speed: 2~10 /sec.            |

/ Resistance to Soldering Heat Test Conditions

260±5                      10±1 sec.                      Temp.:260±5                      Time:10±1 sec

/ Packaging SPEC.

/ REEL

| Package Type | Units/Reel | Reels/Inner Box | Units | Dimension (unit mm <sup>3</sup> ) |
|--------------|------------|-----------------|-------|-----------------------------------|
|--------------|------------|-----------------|-------|-----------------------------------|