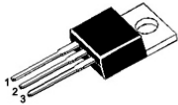
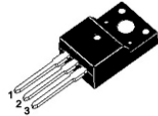




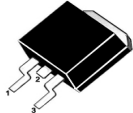
# SBT20V100CT/FCT/DC LOW VF SCHOTTKY RECTIFIER



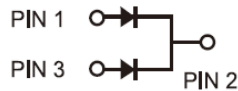
TO-220AB/CT



TO-220F/FCT



TO-263/DC



## FEATURES

- Very low forward voltage
- High current capability
- High forward surge capability
- Low power losses, High efficiency
- Guarding for over voltage protection

## APPLICATIONS

Low VF Schottky barrier rectifier are designed for high frequency, miniature switched mode power supplies such as adapters ,lighting and on-board DC/DC conerters

## MECHANICAL DATA

- **Case:** Molded plastic
- **Polarity:** As marked
- **Mounting Position:** Any
- **Molded Plastic:** UL Flammability Classification Rating 94V-0
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Solder bath temperature 275°C maximum,10s per JESD 22-B106

## Primary Characteristic

|            |       |
|------------|-------|
| $I_O$      | 2*10A |
| $V_{RRM}$  | 100V  |
| $I_{FSM}$  | 180A  |
| $V_F$      | 0.62V |
| $T_{Jmax}$ | 150°C |

## Maximum Ratings (Per Leg) at Ta=25°C unless otherwise specified

| Characteristics                                         | Symbol          | Value       | Unit |
|---------------------------------------------------------|-----------------|-------------|------|
| Maximum Repetitive Peak Reverse Voltage                 | $V_{RRM}$       | 100         | V    |
| Working Peak Reverse Voltage                            | $V_{RWM}$       | 100         | V    |
| Maximum DC Blocking Voltage                             | $V_{DC}$        | 100         | V    |
| Maximum Average Forward Rectified Current               | Per Leg         | 10          | A    |
|                                                         | Total           | 20          |      |
| Peak Forward Surge Current,8.3 ms Single Half Sine-wave | $I_{FSM}$       | 180         | A    |
| Operating Temperature Range                             | $T_J$           | -50 to +150 | °C   |
| Storage Temperature Range                               | $T_{STG}$       | -50 to +150 | °C   |
| Typical Thermal Resistance (Note1)                      | $R_{\theta JC}$ | 2           | °C/W |
| TO-220AB,TO-263                                         |                 | 4           |      |
| TO-220F                                                 |                 |             |      |

Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

## Electrical Characteristics (Per Leg) unless otherwise specified

| Characteristics                                 |          | Symbol         | Value |      | Unit |
|-------------------------------------------------|----------|----------------|-------|------|------|
| Forward Voltage Drop(Note2)                     |          | V <sub>F</sub> | Typ.  | Max. | V    |
| at I <sub>F</sub> =3A                           | TA=25°C  |                | 0.49  | -    |      |
|                                                 | TA=125°C |                | 0.43  | -    |      |
| at I <sub>F</sub> =5A                           | TA=25°C  |                | 0.55  | 0.58 |      |
|                                                 | TA=125°C |                | 0.51  | -    |      |
| at I <sub>F</sub> =10A                          | TA=25°C  |                | 0.67  | 0.70 |      |
|                                                 | TA=125°C |                | 0.62  | -    |      |
| Maximum Reverse Current at V <sub>R</sub> =100V | TA=25°C  | I <sub>R</sub> | 5     | 50   | μA   |
|                                                 | TA=125°C |                | 5     | -    | mA   |

Note2:Pulse test: 300 μs pulse width, 1 % duty cycle

### RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

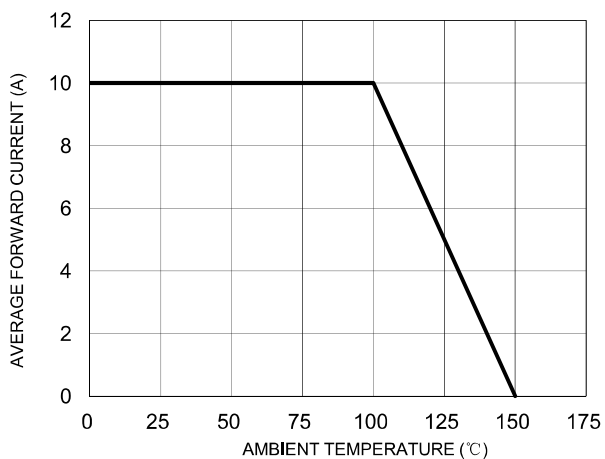


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

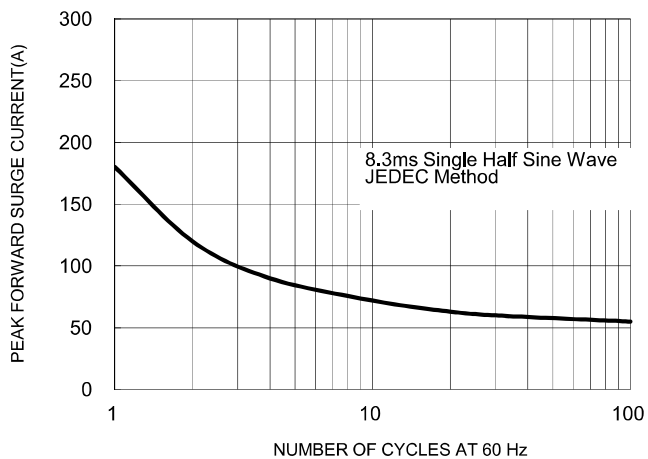


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

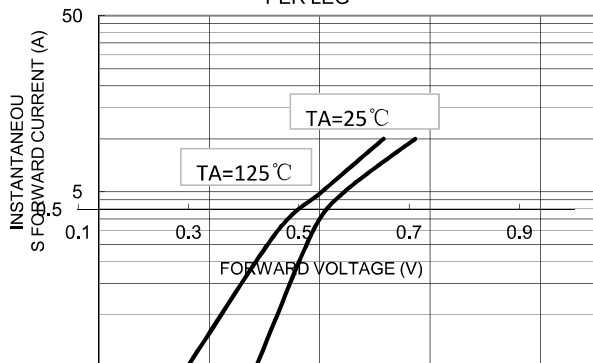
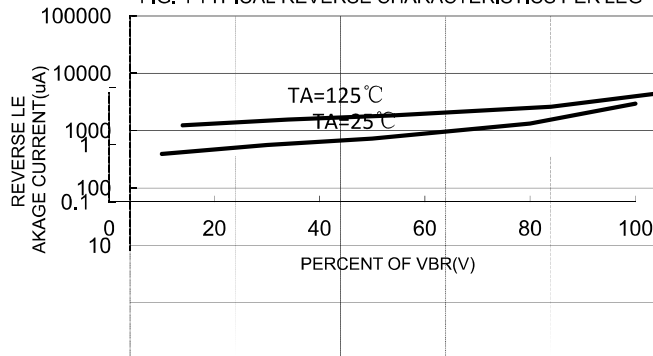
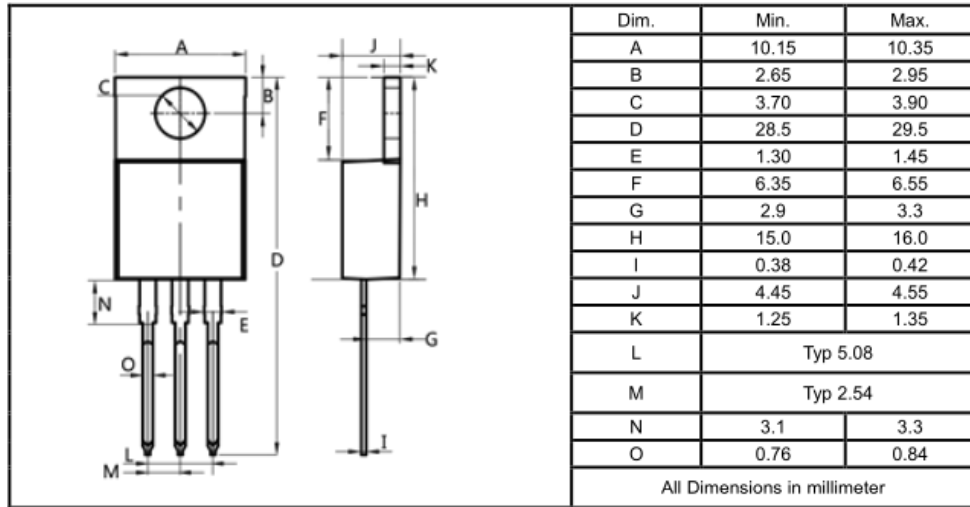


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

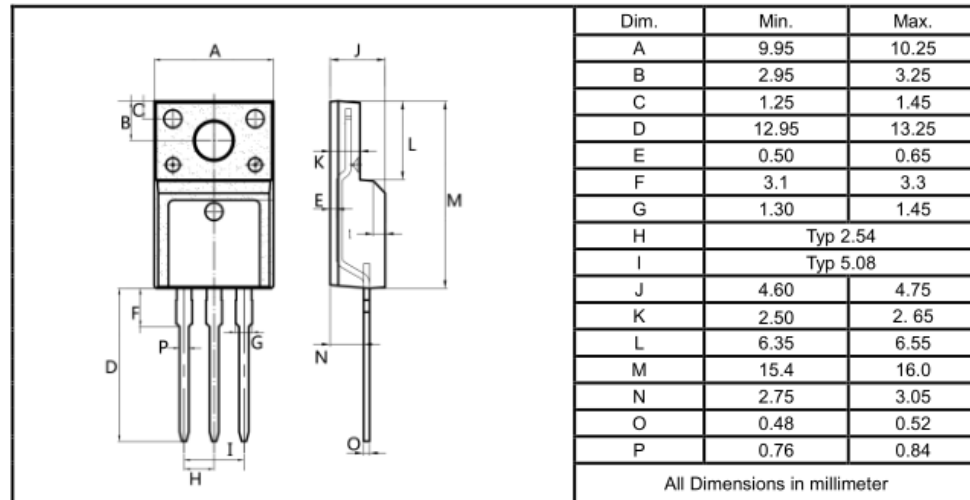


Package Outline Dimensions millimeters

**TO-220AB**



**TO-220F**



**TO-263**

