

# SB1020FCT – SB10100FCT

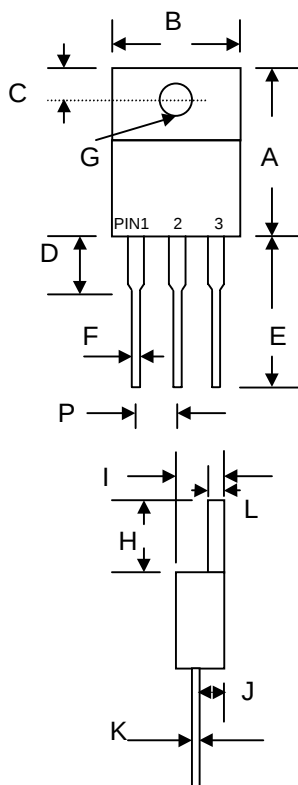
## 10A ISOLATION SCHOTTKY BARRIER RECTIFIER

### Features

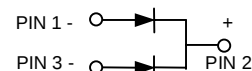
- Schottky Barrier Chip
- Guard Ring for Transient Protection
- High Current Capability, Low Forward
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

### Mechanical Data

- Case: ITO-220 Full Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-750, Method 2026
- Polarity: As Marked on Body
- Weight: 2.24 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



| ITO-220              |        |        |
|----------------------|--------|--------|
| Dim                  | Min    | Max    |
| A                    | 14.9   | 15.1   |
| B                    | —      | 10.5   |
| C                    | 2.62   | 2.87   |
| D                    | 3.56   | 4.06   |
| E                    | 13.46  | 14.22  |
| F                    | 0.68   | 0.94   |
| G                    | 3.74 Ø | 3.91 Ø |
| H                    | 5.84   | 6.86   |
| I                    | 4.44   | 4.70   |
| J                    | 2.54   | 2.79   |
| K                    | 0.35   | 0.64   |
| L                    | 1.14   | 1.40   |
| P                    | 2.41   | 2.67   |
| All Dimensions in mm |        |        |



### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

| Characteristic                                                                                                        | Symbol                                                  | SB<br>1020FCT | SB<br>1030FCT | SB<br>1040FCT | SB<br>1050FCT | SB<br>1060FCT | SB<br>1080FCT | SB<br>10100FCT | Unit |
|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                                | V <sub>RRM</sub><br>V <sub>VRWM</sub><br>V <sub>R</sub> | 20            | 30            | 40            | 50            | 60            | 80            | 100            | V    |
| RMS Reverse Voltage                                                                                                   | V <sub>R(RMS)</sub>                                     | 14            | 21            | 28            | 35            | 42            | 56            | 70             | V    |
| Average Rectified Output Current @T <sub>C</sub> = 95°C                                                               | I <sub>O</sub>                                          | 10            |               |               |               |               |               |                | A    |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on<br>rated load (JEDEC Method) | I <sub>FSM</sub>                                        | 150           |               |               |               |               |               |                | A    |
| Forward Voltage @I <sub>F</sub> = 5.0A                                                                                | V <sub>FM</sub>                                         | 0.55          |               |               | 0.75          |               | 0.85          |                | V    |
| Peak Reverse Current @T <sub>A</sub> = 25°C<br>At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C                   | I <sub>RM</sub>                                         | 0.5<br>50     |               |               |               |               |               |                | mA   |
| Typical Junction Capacitance (Note 1)                                                                                 | C <sub>j</sub>                                          | 700           |               |               |               |               |               |                | pF   |
| Operating and Storage Temperature Range                                                                               | T <sub>j</sub> , T <sub>STG</sub>                       | -65 to +150   |               |               |               |               |               |                | °C   |

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

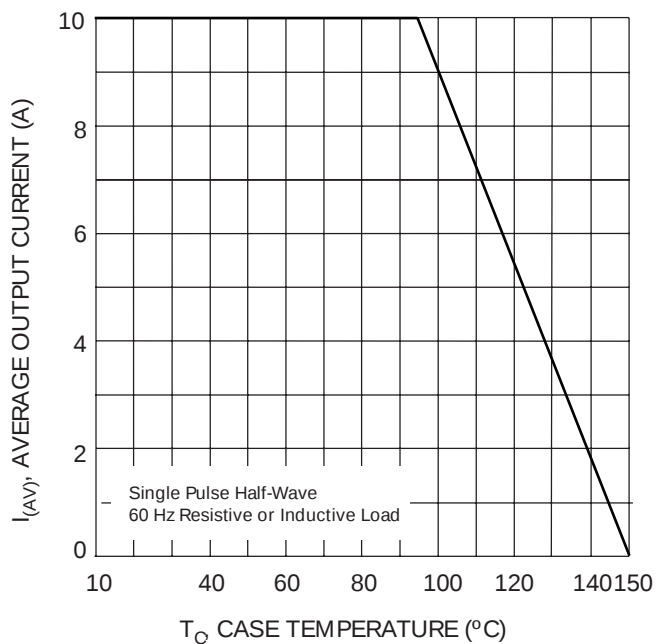


Fig. 1 Forward Current Derating Curve

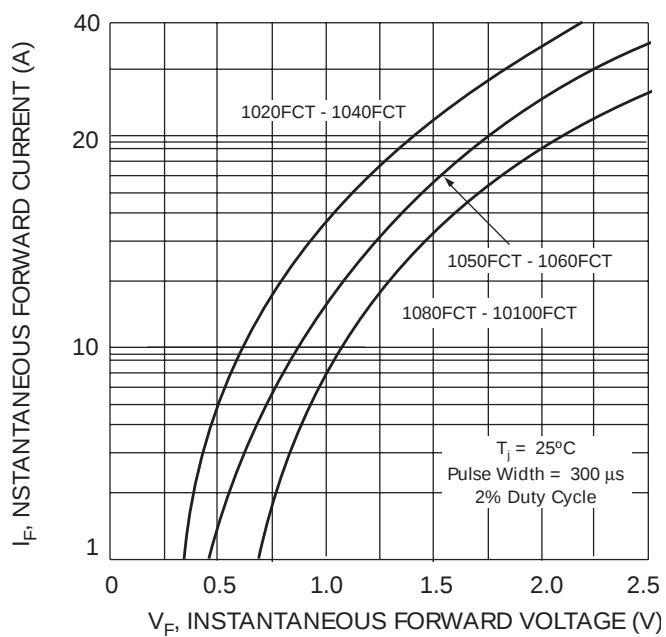


Fig. 2 Typical Forward Characteristics

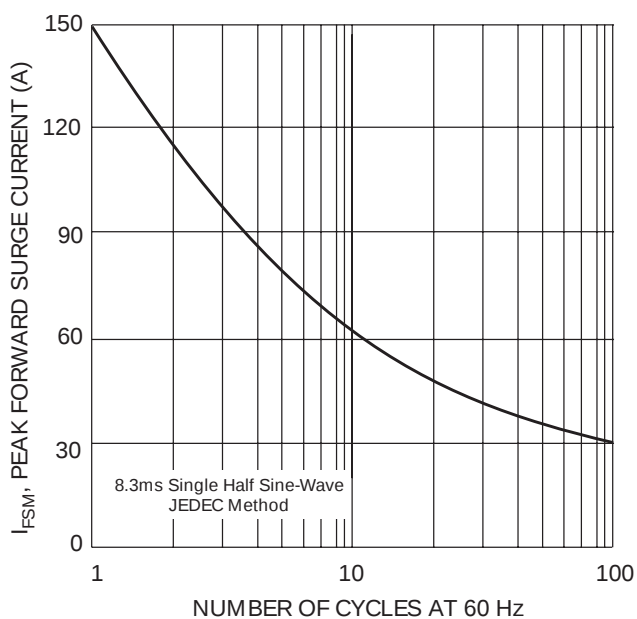


Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

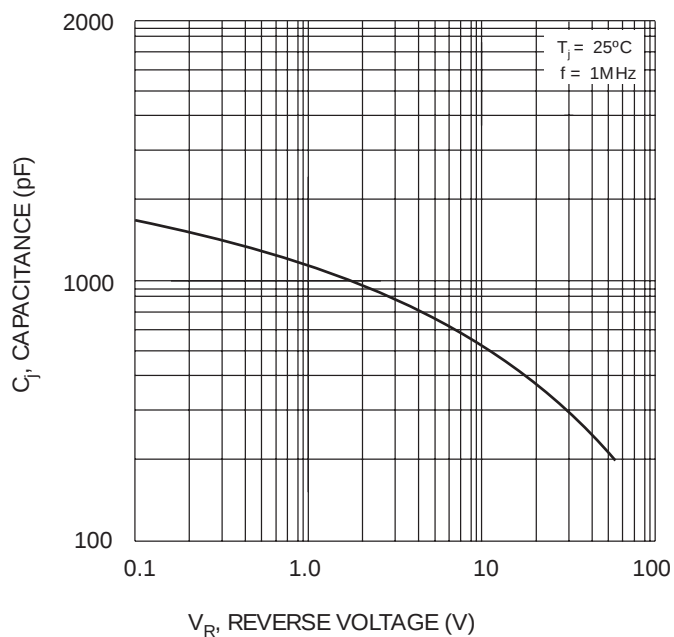


Fig. 4 Typical Junction Capacitance

## ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|-------------|--------------|-------------------|
| SB1020FCT   | ITO-220      | 50 Units/Tube     |
| SB1030FCT   | ITO-220      | 50 Units/Tube     |
| SB1040FCT   | ITO-220      | 50 Units/Tube     |
| SB1050FCT   | ITO-220      | 50 Units/Tube     |
| SB1060FCT   | ITO-220      | 50 Units/Tube     |
| SB1080FCT   | ITO-220      | 50 Units/Tube     |
| SB10100FCT  | ITO-220      | 50 Units/Tube     |

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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