

# Surface Mount Schottky Barrie Rectifier

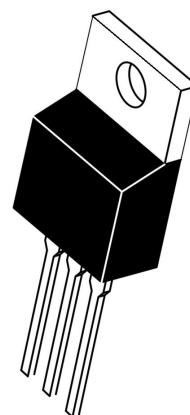
## Features

- Maximum repetitive peak reverse voltage: 20V---200V
- Low profile package.
- Low power losses, high efficiency
- Low forward voltage drop
- High surge capability
- Halogen free and RoHS compliant
- Lead-free finish

## Mechanical Characteristics

- CASE: TO-220AB
- Mounting Position: Any
- Polarity: Cathode band denotes
- Terminal: Solder plated

## TO-220AB



## Maximum Ratings And Characteristics @ 25°C Ambient Temperature (unless otherwise noted)

| Parameter                                                                          | Symbol             | 2020         | 2045 | 2060 | 2080      | 20100 | 20150 | 20200 | Units |
|------------------------------------------------------------------------------------|--------------------|--------------|------|------|-----------|-------|-------|-------|-------|
| Maximum repetitive peak reverse voltage                                            | V <sub>RRM</sub>   | 20           | 45   | 60   | 80        | 100   | 150   | 200   | V     |
| Maximum RMS voltage                                                                | V <sub>RMS</sub>   | 14           | 32   | 42   | 56        | 70    | 105   | 140   | V     |
| Maximum DC blocking voltage                                                        | V <sub>DC</sub>    | 20           | 45   | 60   | 80        | 100   | 150   | 200   | V     |
| Maximum average forward rectified current at T L                                   | I <sub>F(AV)</sub> | 20           |      |      |           |       |       |       | A     |
| Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load | I <sub>FSM</sub>   | 200          |      |      |           |       |       |       | A     |
| Maximum Instantaneous forward voltage at 3.0A                                      | V <sub>F</sub>     | 0.55         |      | 0.7  | 085       |       | 0.92  |       | V     |
| Maximum DC Reverse Current Ta=25 °C<br>at Rated DC Blocking Voltage Ta=100 °C      | I <sub>R</sub>     | 0.1<br>5     |      |      | 0.02<br>2 |       |       | mA    |       |
| Typical Thermal Resistance                                                         | R <sub>QJA</sub>   | 2.5          |      |      |           |       |       |       | °C/W  |
| Operating Junction Temperature Range                                               | T <sub>J</sub>     | -55 ---- 125 |      |      |           |       |       |       | °C    |
| Storage Temperature Range                                                          | T <sub>STG</sub>   | -55 ---- 150 |      |      |           |       |       |       | °C    |
| Typical junction capacitance                                                       | C <sub>J</sub>     | 500          |      |      |           |       |       |       | pF    |

Notes:

## Ratings and Characteristic Curves ( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

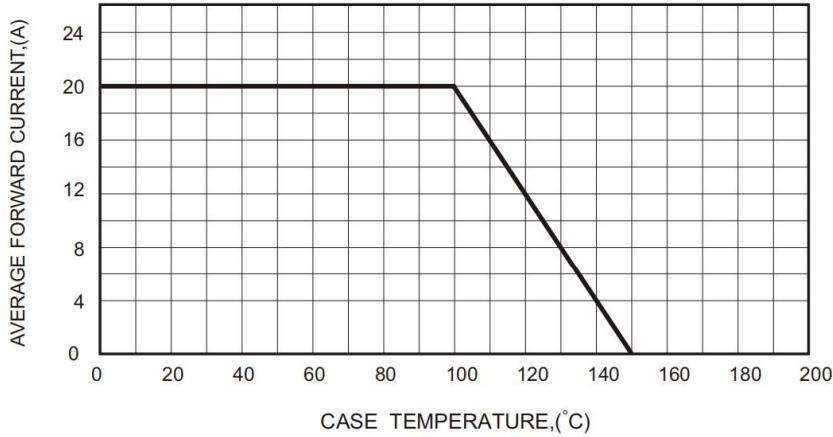


FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

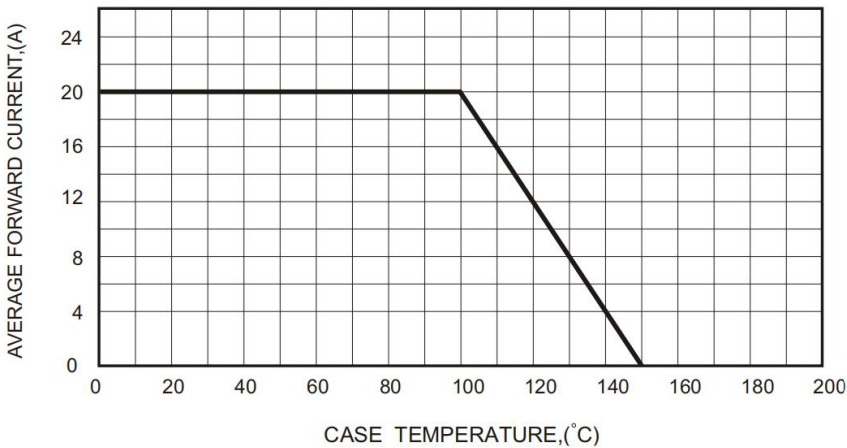


FIG.4-TYPICAL JUNCTION CAPACITANCE

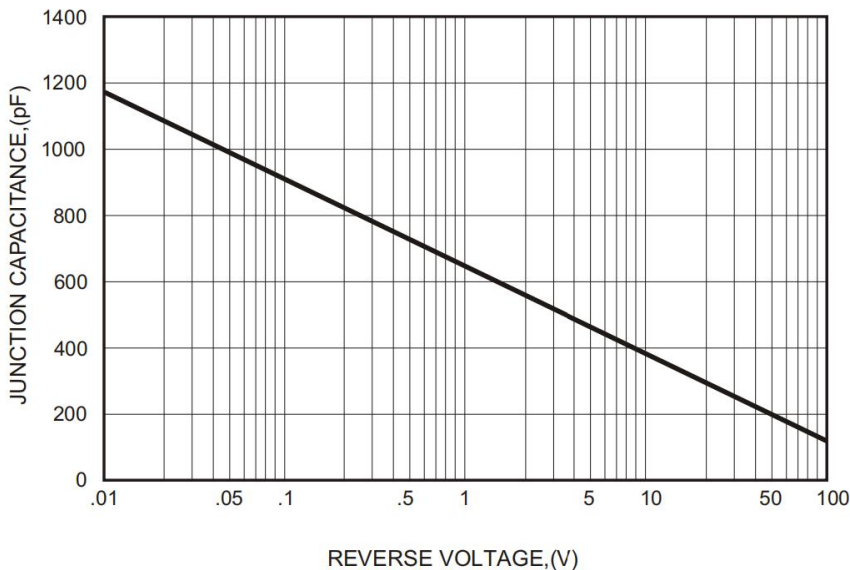


FIG.2-TYPICAL FORWARD CHARACTERISTICS

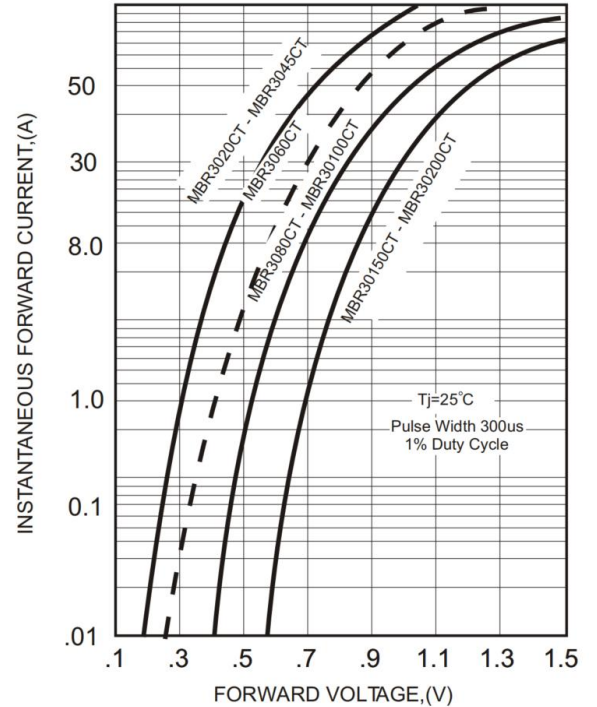
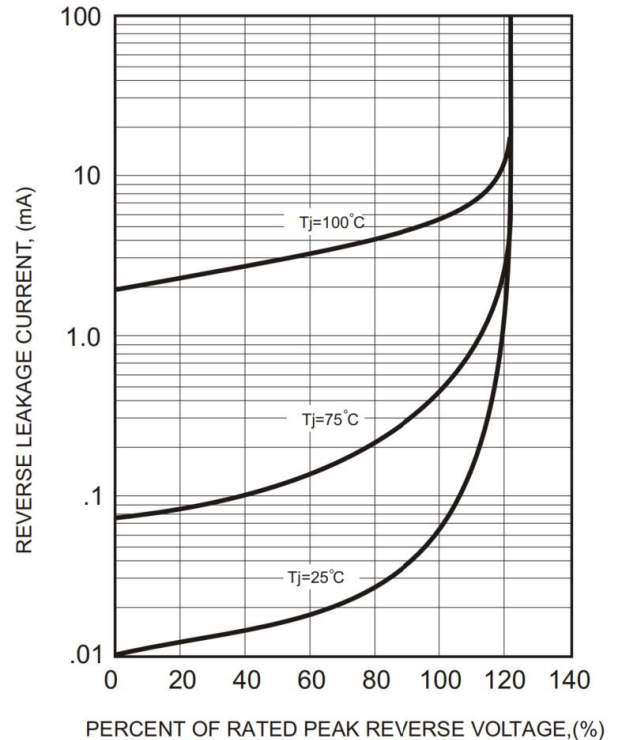
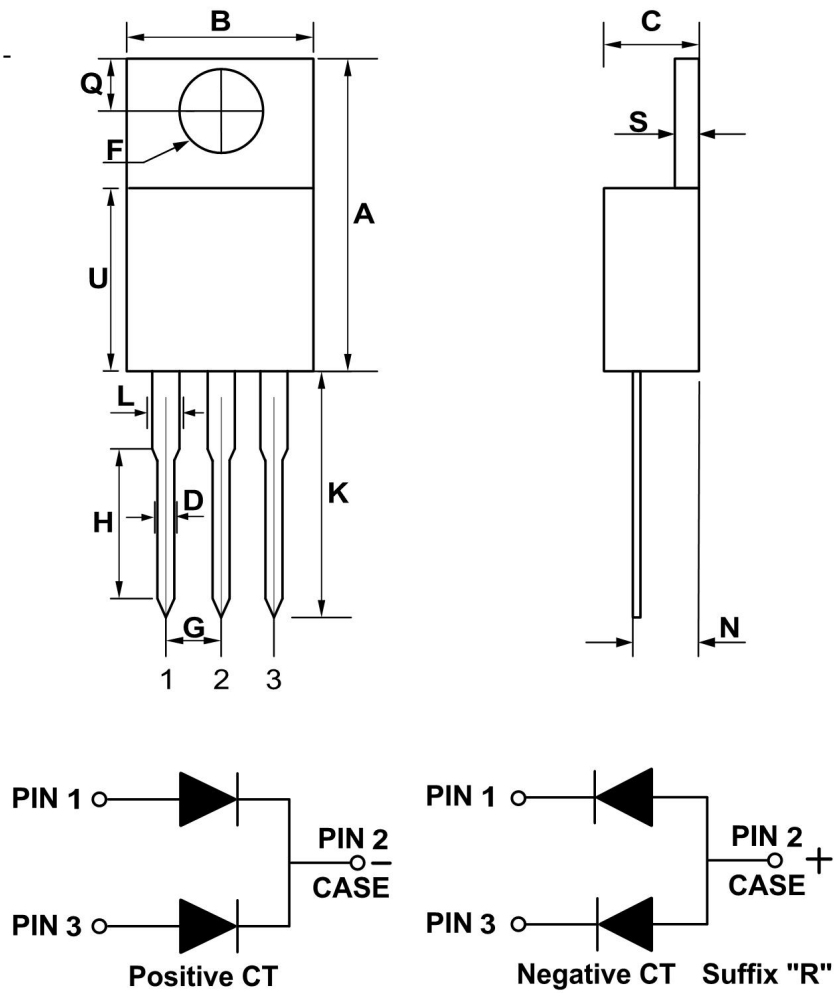


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



Package Outline Dimensions and Pad Layouts

TO-220AB



| TO-220AB |             |       |               |       |
|----------|-------------|-------|---------------|-------|
| Dim      | Millimeters |       | Inches        |       |
|          | Min         | Max   | Min           | Max   |
| A        | 15.67       | 16.12 | 0.617         | 0.635 |
| B        | 9.96        | 10.63 | 0.392         | 0.419 |
| C        | 4.5         | 4.9   | 0.177         | 0.193 |
| D        | 0.6         | 1     | 0.024         | 0.04  |
| N        | ---         | 3.05  | ---           | 0.12  |
| F        | 3.2 ±0.2    |       | 0.105 ±0.0066 |       |
| G        | 2.54BSC     |       | 0.1BSC        |       |
| H        | ---         | 4.00  | ---           | 0.158 |
| S        | ---         | 1.27  | ---           | 0.05  |
| Q        | ---         | 2.75  | ---           | 0.108 |
| K        | ---         | 14.00 | ---           | 0.550 |
| L        | ---         | 1.3   | ---           | 0.51  |
| U        | ---         | 7     | ---           | 0.276 |
|          |             |       |               |       |
|          |             |       |               |       |