



### Schottky Diodes

Reverse Voltage-40to200v

Forward current-30A

#### Features

Schottky chip

Low forward voltage drop

Ideal for surface mounted applications

Low power loss, high efficiency

Plastic Case Material has UL Flammability

#### Mechanical Data

Package: TO-220AB, TO-220F, TO-263

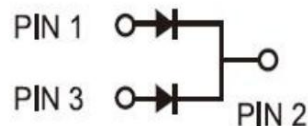
Terminals: Tin Plated leads, solderable per

Mil-STD-750 Method 2026

Polarity: As marked

Molding compound meets UL 94 V-0 flammability rating,

ROHS-compliant



TO-220AB

#### Maximum Ratings (Ta=25°C Unless otherwise)

| Type Number                                                                                                  | SYMBOL      | SBTL<br>30100 | Unit                      |
|--------------------------------------------------------------------------------------------------------------|-------------|---------------|---------------------------|
| Maximum Recurrent Peak Reverse Voltage                                                                       | $V_{RRM}$   | 100           | V                         |
| Maximum RMS Voltage                                                                                          | $V_{RMS}$   | 70            | V                         |
| Maximum DC Blocking Voltage                                                                                  | $V_{DC}$    | 100           | V                         |
| Maximum Average Forward Rectified Current at $T_L = 100^\circ\text{C}$                                       | $I_{O(AV)}$ | 30.0          | A                         |
| Peak Forward Surge Current<br>8.3ms Single half-sine-wave superimposed on rated load (JEDEC Method) on rated | IFSM        | 230.0         | A                         |
| Forward Surge Current (Non-repetitive)<br>@1ms, square wave, 1 cycle, $T_j = 25^\circ\text{C}$               |             | 460.0         | A                         |
| Current squared time<br>@1ms ≤ t ≤ 8.3ms $T_j = 25^\circ\text{C}$ , Rating of per diode                      | $I^2t$      | 219.5         | A <sup>2</sup> S          |
| Maximum Forward Voltage at 15.0A DC                                                                          | $V_{FM}$    | 0.75          | V                         |
| Maximum Reverse Current $T_A = 25^\circ\text{C}$                                                             | IR          | 0.1           | mA                        |
| at Rated DC Blocking Voltage $T_A = 100^\circ\text{C}$                                                       |             | 20            | mA                        |
| Typical Junction Capacitance                                                                                 | CJ          | 300           | pF                        |
| Typical Thermal Resistance TO-220AB, TO-263                                                                  | $R_{QJC}$   | 2.0           | $^\circ\text{C}/\text{W}$ |
| TO-220F                                                                                                      |             | 4.0           |                           |
| Operating Junction Temperature Range                                                                         | $T_J$       | -55to+150     | $^\circ\text{C}$          |
| Storage Temperature Range                                                                                    | $T_{STG}$   | -55to+150     | $^\circ\text{C}$          |



FIG. 1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

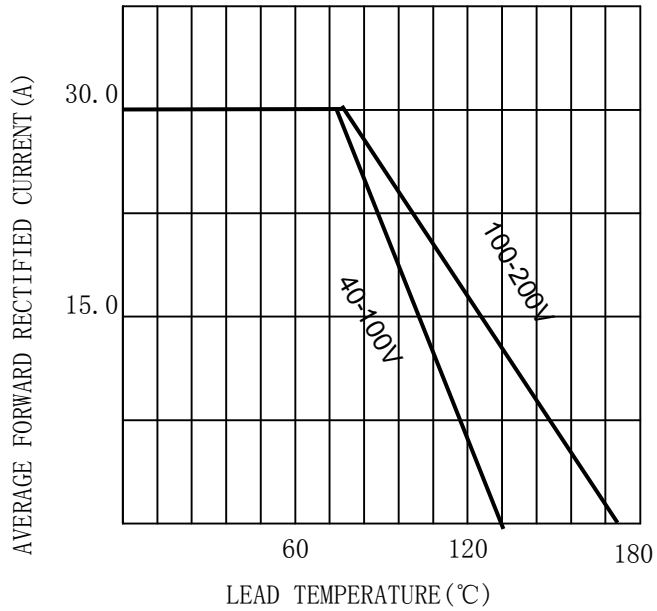


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

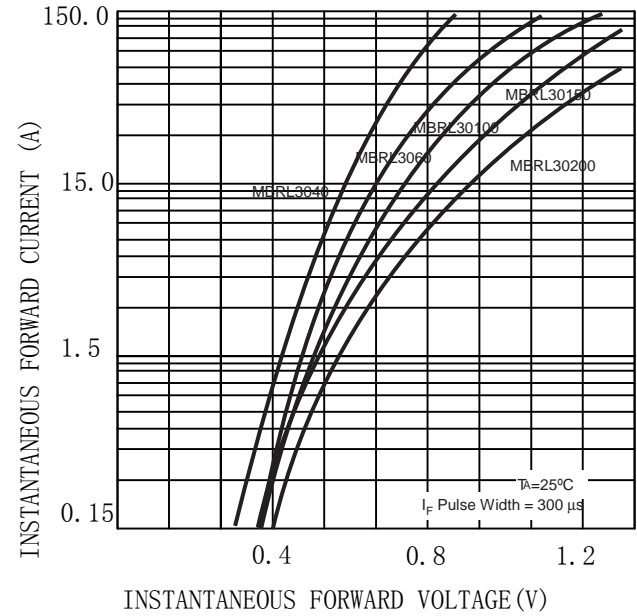


FIG. 3 MAXIMUM NON-REPEITIVE SURGE CURRENT

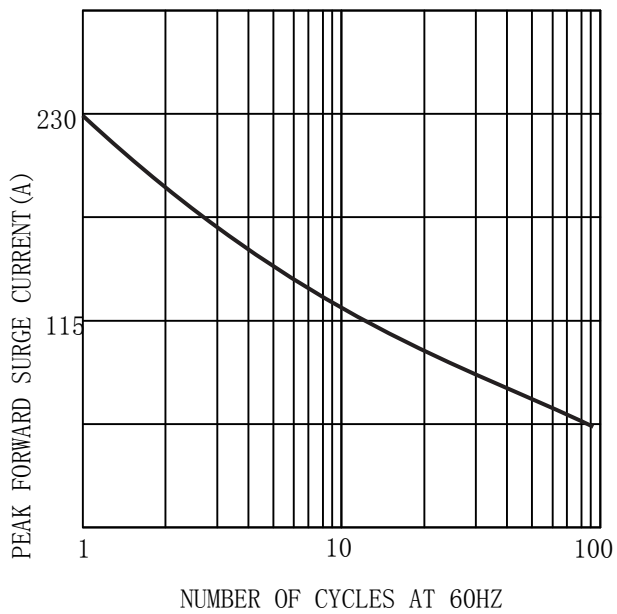
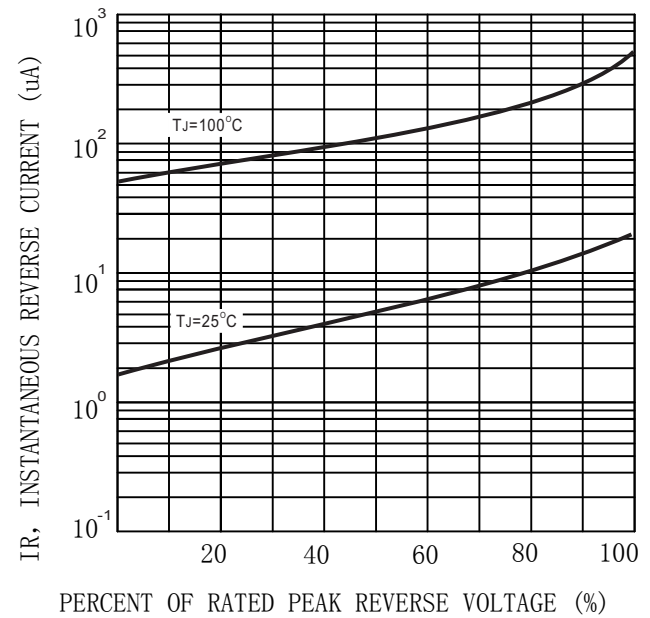


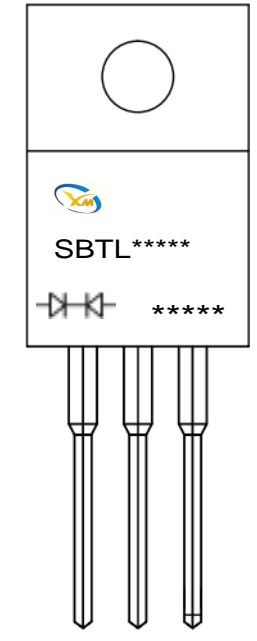
FIG. 4 TYPICAL REVERSE CHARACTERISTICS(per element)







## MARKING INFORMATION

TO-220AB/CT



 = Polar line

 = Logo

\*\*\*\*\* = Date Code Marking

SBTL\*\*\*\*\* = Marking Code



Package Outline Dimensions millimeters

| T0-220AB/CT |        |      |       |       |      |
|-------------|--------|------|-------|-------|------|
| DIM         | INCHES |      | MM    |       | NOTE |
|             | min    | max  | min   | max   |      |
| A           | —      | 0.41 | —     | 10.30 |      |
| B           | 0.33   | 0.34 | 8.30  | 8.70  |      |
| C           | 0.18   | 0.19 | 4.50  | 4.90  |      |
| D           | 0.57   | 0.60 | 14.60 | 15.20 |      |
| E           | 0.53   | 0.56 | 13.50 | 14.10 |      |
| a           | 0.10   | 0.10 | 2.45  | 2.65  |      |
| b           | —      | 0.16 | —     | 4.10  |      |
| c           | 0.03   | 0.04 | 0.72  | 0.92  |      |
| d           | 0.01   | 0.02 | 0.30  | 0.50  |      |
| e           | —      | 0.15 | —     | 3.80  | Ø    |
| f           | 0.05   | 0.06 | 1.20  | 1.40  |      |



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