

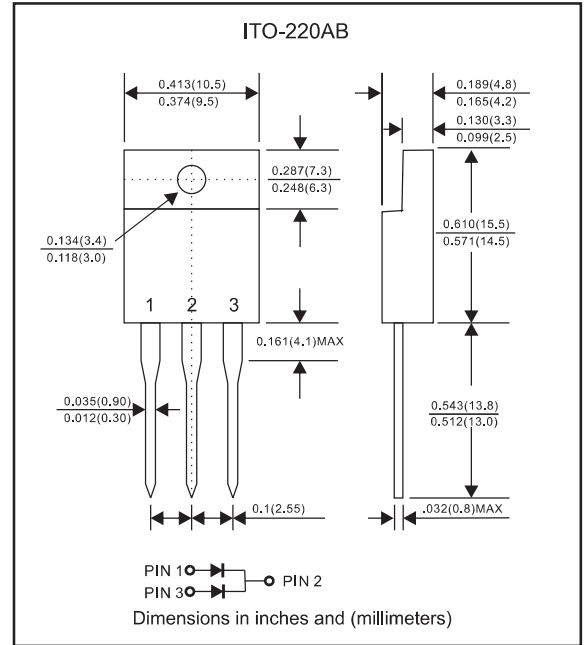
Features

- Low power loss, high efficiency.
- High current capability
- High surge capability.
- Guardring for overvoltage protection.
- Low stored charge majority carrier conduction
- Silicon epitaxial planar chip, metal silicon junction.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228
- Suffix "-H" indicates Halogen-free parts, ex. MBR30200SFCT-H.

Mechanical data

- Epoxy : UL94-V0 rated flame retardant
- Case : JEDEC ITO-220AB molded plastic body over passivated chip
- Lead : Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: As marked
- Mounting Position : Any

Package outline



Maximum ratings and Electrical Characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

| PARAMETER | CONDITIONS | Symbol | MIN. | TYP. | MAX. | UNIT |
|---------------------------|---|-----------------|------|------|------|---------------------------|
| Forward rectified current | See Fig.1 | I_O | | | 30.0 | A |
| Forward surge current | 8.3ms single half sine-wave (JEDEC methode) | I_{FSM} | | | 200 | A |
| Reverse current | $V_R = V_{RRM} T_J = 25^\circ\text{C}$ | I_R | | | 0.05 | mA |
| | $V_R = V_{RRM} T_J = 125^\circ\text{C}$ | | | | 15 | |
| Thermal resistance | Junction to case | $R_{\theta JC}$ | | 1.4 | | $^\circ\text{C}/\text{W}$ |
| Storage temperature | | T_{STG} | -65 | | +175 | $^\circ\text{C}$ |

| SYMBOLS | V_{RRM}^{*1} (V) | V_{RMS}^{*2} (V) | V_R^{*3} (V) | V_F^{*4} (V) | Operating temperature T_J , ($^\circ\text{C}$) |
|--------------|-----------------------|-----------------------|-------------------|-------------------|---|
| MBR30200SFCT | 200 | 140 | 200 | 0.95 | -55 to +175 |

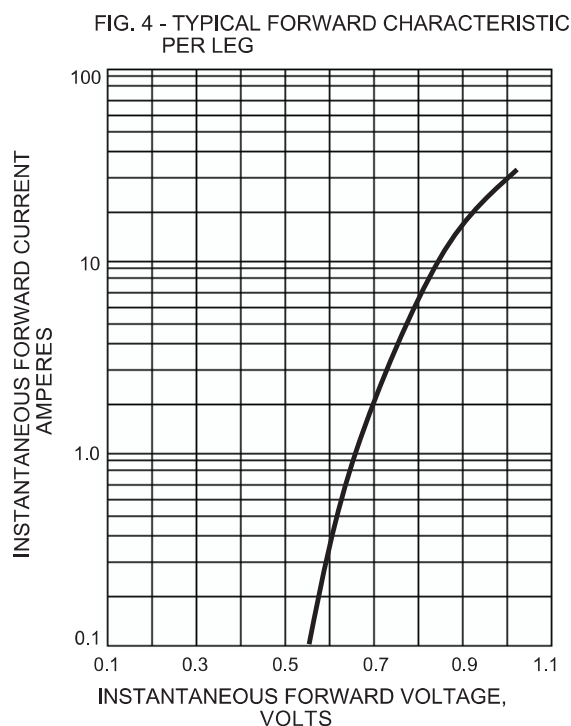
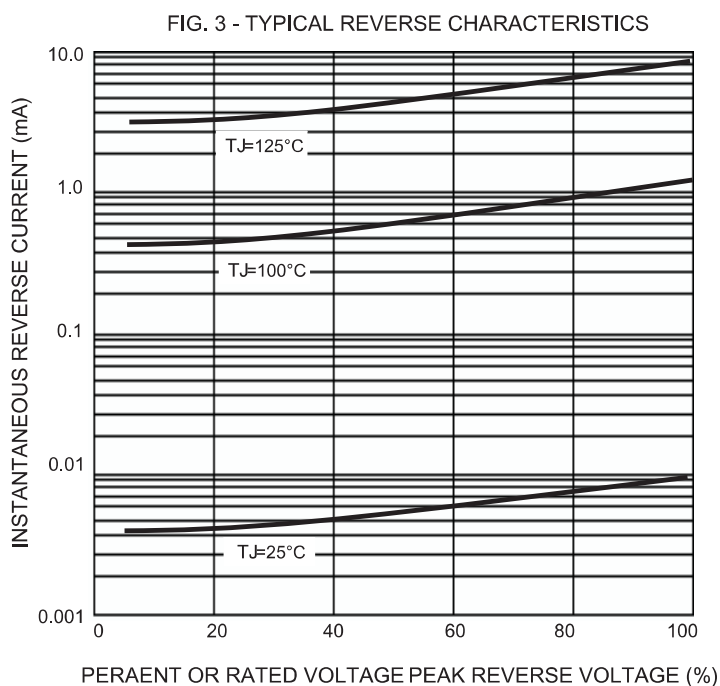
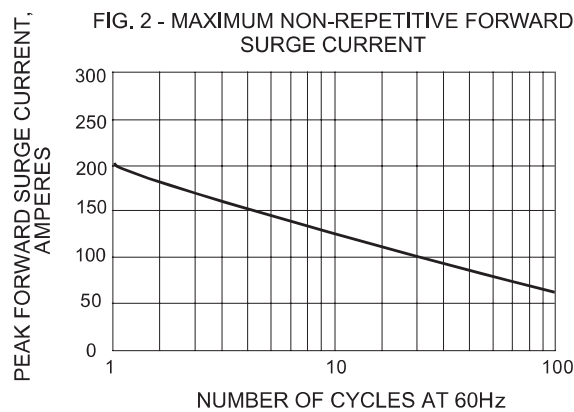
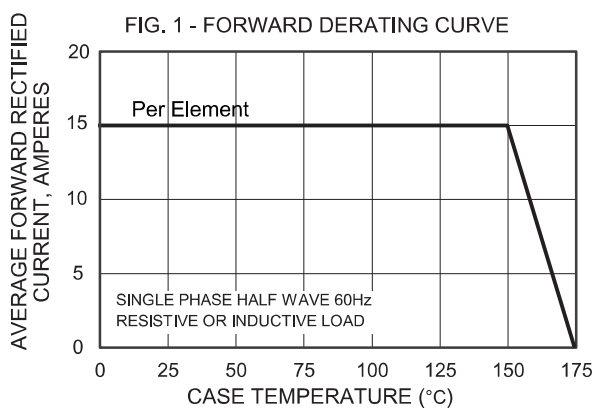
*1 Repetitive peak reverse voltage

*2 RMS voltage

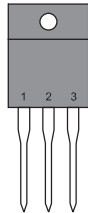
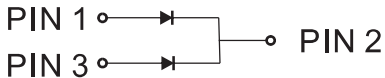
*3 Continuous reverse voltage

*4 Maximum forward voltage
 $I_F = 15.0\text{A}$, 25°C

Rating and characteristic curves



Pinning information

| Pin | Simplified outline | Symbol |
|--|---|---|
| Pin1 anode Pin2 cathode Pin3 anode |  |  |

Marking

| Type number | Marking code |
|--------------|--------------|
| MBR30200SFCT | MBR30200SFCT |