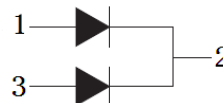


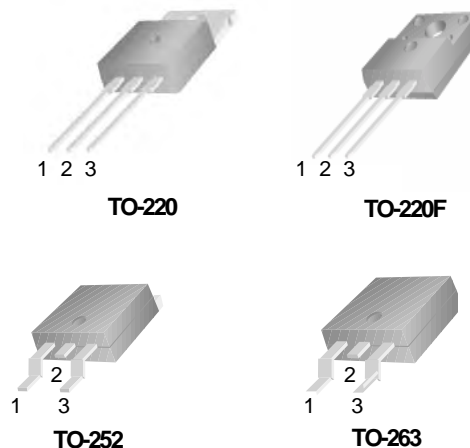
APPLICATIONS

- High frequency switch power supply
- Free wheeling diodes, polarity protection applications



FEATURES

- Common cathode structure
- Low power loss, high efficiency
- High Operating Junction Temperature
- Guard ring for overvoltage protection, High reliability
- RoHS product



ORDER INFORMATION

| Product | Package | Pin Assignment | | | Packing |
|-------------|---------|----------------|---|---|-----------|
| | | 1 | 2 | 3 | |
| MBR10150CT | TO-220 | A | K | A | Tube |
| MBR10150FCT | TO-220F | A | K | A | Tube |
| MBR10150YCT | TO-263 | A | K | A | Tape Reel |
| MBR10150DCT | TO-252 | A | K | A | Tape Reel |

ABSOLUTE RATINGS (Tc=25°C)

| Parameter | | Symbol | Value | Unit |
|---|---|-------------|----------|------|
| Repetitive peak reverse voltage | | V_{RRM} | 150 | V |
| Maximum DC blocking voltage | | V_{DC} | 150 | V |
| Average forward current | $T_C=150^{\circ}C$ (TO-220/263/ TO-252) | $I_{F(AV)}$ | 10 | A |
| | $T_C=125^{\circ}C$ (TO-220F) | | 5 | |
| Surge non repetitive forward current 8.3 ms single half-sine-wave (JEDEC Method) | | I_{FSM} | 168 | A |
| Maximum junction temperature | | T_j | 150 | °C |
| Storage temperature range | | T_{STG} | -40~+150 | °C |

ELECTRICAL CHARACTERISTICS

| Parameter | Tests conditions | | Value(min) | Value(typ) | Value(max) | Unit |
|-----------|--------------------------|-------------------|------------|------------|------------|---------------|
| I_R | $T_j = 25^\circ\text{C}$ | $V_R = V_{RRM}$ | | | 10 | μA |
| V_F | $T_j = 25^\circ\text{C}$ | $I_F = 5\text{A}$ | | 0.81 | 0.90 | V |

THERMAL CHARACTERISTICS

| Parameter | | Symbol | Value(min) | Value(max) | Unit |
|--|---------|---------------|------------|------------|--------------------|
| Thermal resistance from junction to case | TO-220 | $R_{th(j-c)}$ | | 2.0 | $^\circ\text{C/W}$ |
| | TO-263 | | | 2.0 | |
| | TO-252 | | | 3.0 | |
| | TO-220F | | | 4.0 | |

ELECTRICAL CHARACTERISTICS (curves)

