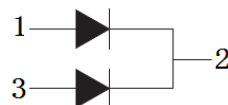


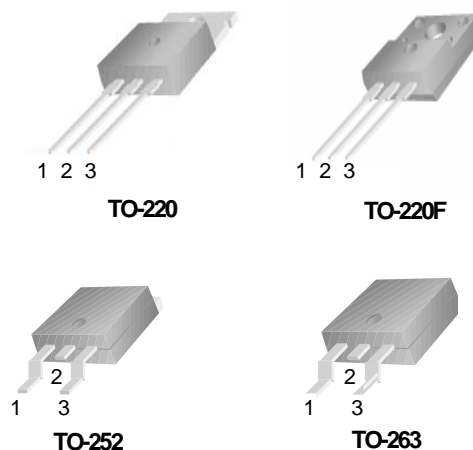
APPLICATIONS

- 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 | |
| MBR10100CT | TO-220 | A | K | A | Tube |
| MBR10100FCT | TO-220F | A | K | A | Tube |
| MBR10100YCT | TO-263 | A | K | A | Tape Reel |
| MBR10100DCT | TO-252 | A | K | A | Tape Reel |

ABSOLUTE RATINGS (T_c=25°C)

| Parameter | | Symbol | Value | Unit |
|---|--|--------------------|----------|------|
| Repetitive peak reverse voltage | | V _{RRM} | 100 | V |
| Maximum DC blocking voltage | | V _{DC} | 100 | V |
| Average forward current | T _C =150°C (TO-220/263/ TO-252) | I _{F(AV)} | 10 | A |
| | T _C =125°C (TO-220F) | | 5 | |
| Surge non repetitive forward current 8.3 ms single half-sine-wave (JEDEC Method) | | I _{FSM} | 152 | 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 | $T_j = 25^{\circ}\text{C}$ | $V_R = V_{RRM}$ | | | 5 | μA |
| V_F | $T_j = 25^{\circ}\text{C}$ | $I_F = 5\text{A}$ | | 0.80 | 0.85 | 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)

