



MBR2040CKD~MBR20200CKD

20 AMPERES SCHOTTKY BARRIER RECTIFIERS

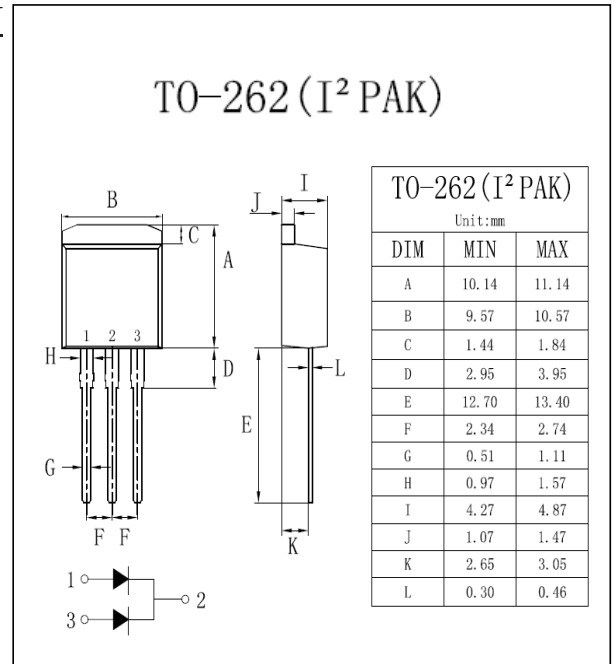
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|---------|-----------------|
| VOLTAGE | 40 to 200 Volts |
| CURRENT | 20 Amperes |

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0. Flame Retardant Epoxy Molding Compound.
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency.
- High current capability
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- Lead free in comply with EU RoHS

MECHANICAL DATA

- Case: TO-262AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| PARAMETER | SYMBOL | MBR 2040CKD | MBR 2045CKD | MBR 2050CKD | MBR 2060CKD | MBR 2080CKD | MBR 2090CKD | MBR 20100CKD | MBR 20150CKD | MBR 20200CKD | UNITS |
|--|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|-----------------------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 40 | 45 | 50 | 60 | 80 | 90 | 100 | 150 | 200 | V |
| Maximum RMS Voltage | V_{RMS} | 28 | 31.5 | 35 | 42 | 56 | 63 | 70 | 105 | 140 | V |
| Maximum DC Blocking Voltage | V_{DC} | 40 | 45 | 50 | 60 | 80 | 90 | 100 | 150 | 200 | V |
| Maximum Average Forward Current (See fig.1) | $I_{F(AV)}$ | 20 | | | | | | | | | A |
| Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method) | I_{FSM} | 150A | | | | | | | | | A |
| Maximum Forward Voltage at 10A, per leg | V_F | 0.65 | | 0.8 | | 0.85 | | 0.92 | | | V |
| Maximum DC Reverse Current $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=125^\circ\text{C}$ | I_R | 0.05 20 | | | | | | | | | mA |
| Typical Thermal Resistance | $R_{\theta JC}$ | 2 | | | | | | | | | $^\circ\text{C} / \text{W}$ |
| Operating Junction and Storage Temperature Range | T_J, T_{STG} | -50 to +150 | | | | | | | -55 to +175 | | $^\circ\text{C}$ |
| Junction Capacitance (Notel) | C_J | 700 | | 500 | | 400 | | 300 | | 250 | pF |

Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc;



RATING AND CHARACTERISTIC CURVES

