

TO-263(D²PAK) SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS
VOLTAGE

40 to 200 Volts

CURRENT

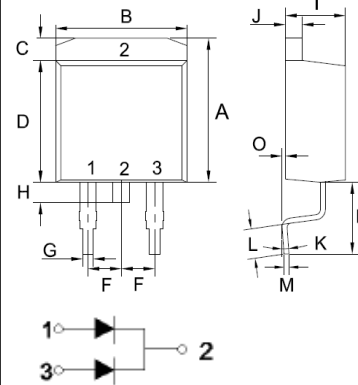
20 Amperes

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

TO-263 (D² PAK)


| TO-263 (D ² PAK) | | |
|-----------------------------|-------|-------|
| Unit:mm | | |
| DIM | MIN | MAX |
| A | 10.44 | 10.84 |
| B | 9.81 | 10.21 |
| C | 1.44 | 1.84 |
| D | 8.80 | 9.20 |
| E | 4.46 | 4.66 |
| F | 2.44 | 2.64 |
| G | 0.61 | 1.01 |
| H | 0.70 | 1.30 |
| I | 4.27 | 4.87 |
| J | 1.07 | 1.47 |
| K | 0° | 8° |
| L | 2.10 | 2.50 |
| M | 0.30 | 0.46 |
| O | 0 | 0.25 |

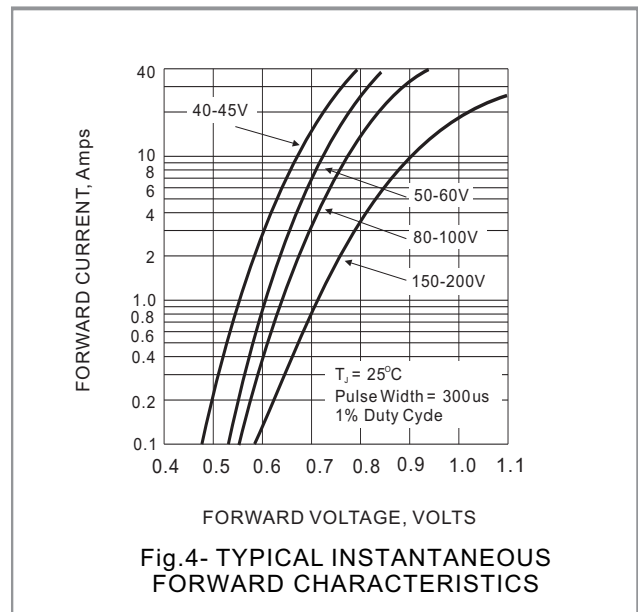
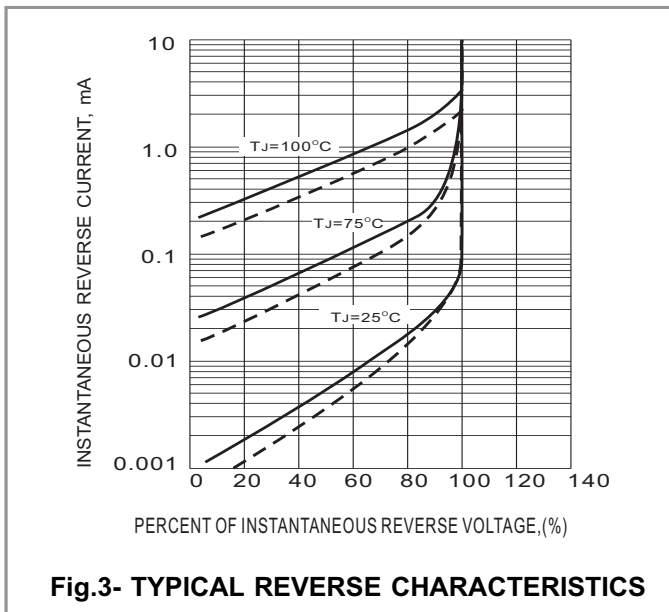
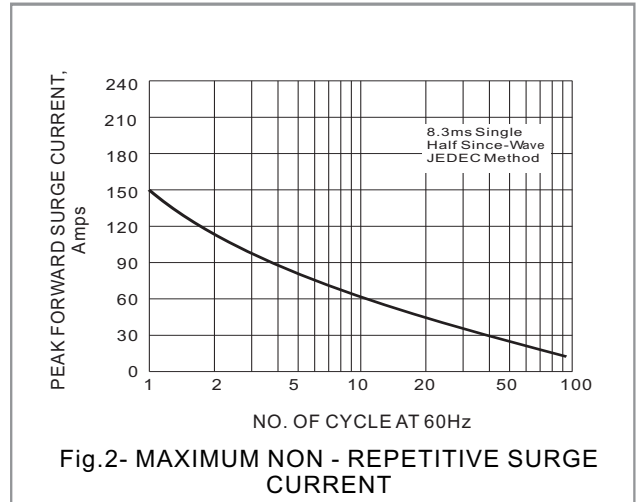
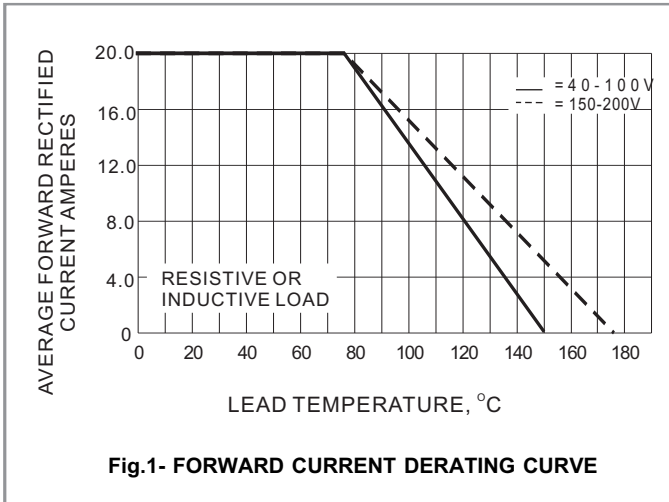
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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 2040CGD | MBR 2045CGD | MBR 2050CGD | MBR 2060CGD | MBR 2080CGD | MBR 2090CGD | MBR 20100CGD | MBR 20150CGD | MBR 20200CGD | 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 | 0.7 | | 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 | | | 0.02 | | | | | | mA |
| | | 20 | | | 20 | | | | | | |
| Typical Thermal Resistance | $R_{\theta JC}$ | 3 | | | | | | | | | °C / W |
| Operating Junction and Storage Temperature Range | T_J, T_{STG} | -50 to +150 | | | | | | | -55 to +175 | | °C |

RATING AND CHARACTERISTIC CURVES



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