

## 20 AMPERES SCHOTTKY BARRIER RECTIFIERS

|         |                 |
|---------|-----------------|
| VOLTAGE | 40 to 200 Volts |
|---------|-----------------|

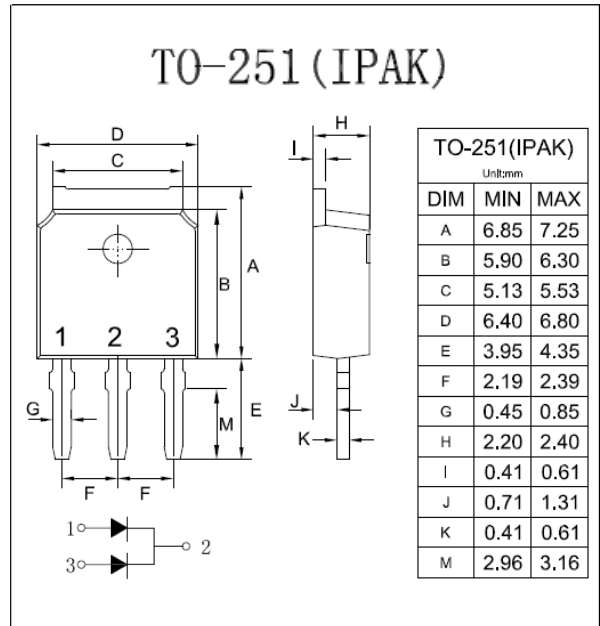
|         |            |
|---------|------------|
| CURRENT | 20 Amperes |
|---------|------------|

### 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: TO-251AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any



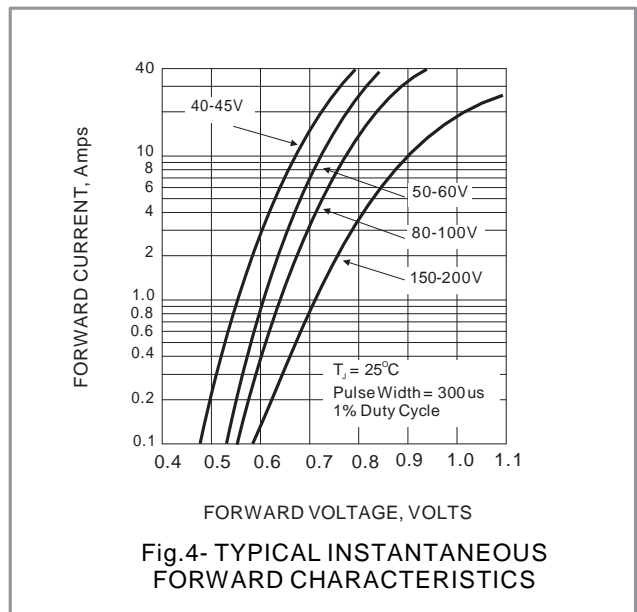
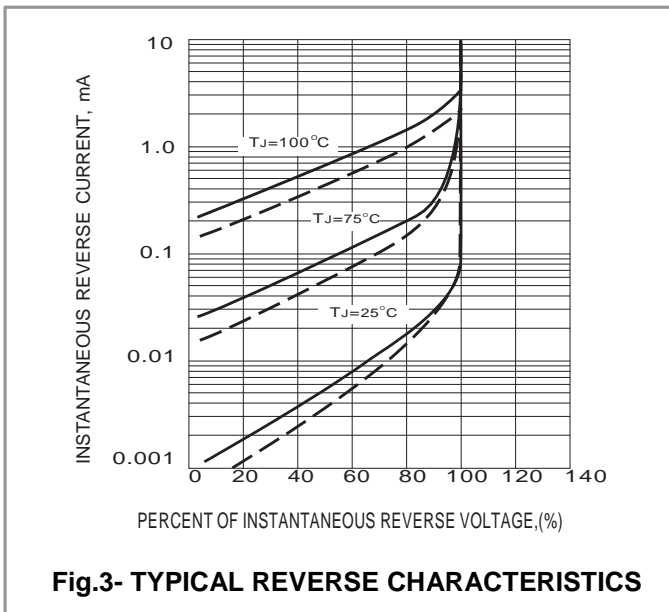
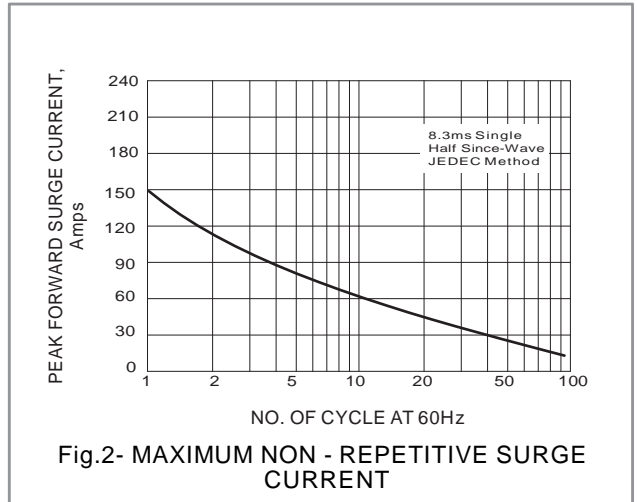
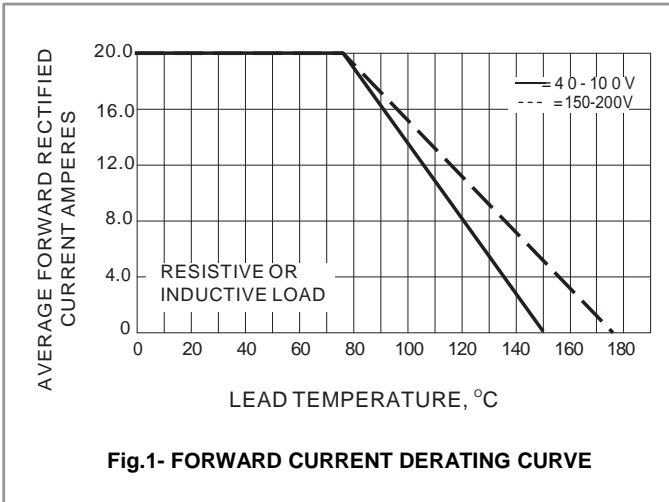
### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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 2040CP  | MBR 2045CP | MBR 2050CP | MBR 2060CP | MBR 2080CP | MBR 2090CP | MBR 20100CP | MBR 20150CP | MBR 20200CP | 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)             | $I_{FSM}$       | 100         |            |            |            |            |            |             |             |             | 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<br>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 |             | $^\circ\text{C}$          |

RATING AND CHARACTERISTIC CURVES



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