



# MBR30200L

## Low VF Schottky Barrier Rectifiers

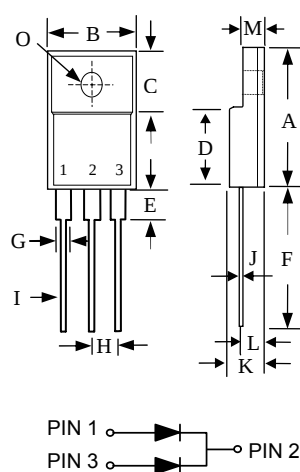
### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O.  
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: ITO-220AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any

### ITO- 220AB



| ITO-220AB |       |       |
|-----------|-------|-------|
| DIM.      | MIN.  | MAX.  |
| A         | 14.90 | 15.90 |
| B         | 9.90  | 10.40 |
| C         | 6.45  | 7.15  |
| D         | 7.85  | 8.75  |
| E         | 2.90  | 3.90  |
| F         | 12.8  | —     |
| G         | 1.10  | 1.4   |
| H         | 2.35  | 2.55  |
| I         | 0.45  | 0.95  |
| J         | 0.40  | 0.65  |
| K         | 4.35  | 4.75  |
| L         | 2.55  | 3.15  |
| M         | 2.60  | 3.10  |
| O         | Ø3.00 | Ø3.50 |

All Dimensions in millimeter

### Maximum Ratings (Per Leg) at Ta=25°C unless otherwise specified

| Characteristics                                          | Symbol          | Value       | Unit |
|----------------------------------------------------------|-----------------|-------------|------|
| Maximum Repetitive Peak Reverse Voltage                  | $V_{RRM}$       | 200         | V    |
| Working Peak Reverse Voltage                             | $V_{RWM}$       | 200         | V    |
| Maximum DC Blocking Voltage                              | $V_{DC}$        | 200         | V    |
| Maximum Average Forward Rectified Current                | Per Leg         | 15          | A    |
|                                                          | Total           | 30          |      |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave | $I_{FSM}$       | 380         | A    |
| Operating Temperature Range                              | $T_J$           | 150         | °C   |
| Storage Temperature Range                                | $T_{STG}$       | -40 to +150 | °C   |
| Typical Thermal Resistance (Note1)                       | $R_{\theta JC}$ | 4           | °C/W |
| ITO-220AB                                                |                 |             |      |

Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

### Electrical Characteristics (Per Leg) unless otherwise specified

| Characteristics                                 |          | Symbol         | Value          |      | Unit |
|-------------------------------------------------|----------|----------------|----------------|------|------|
| Forward Voltage Drop(Note2)                     |          | V <sub>F</sub> | Typ.           | Max. | V    |
| at I <sub>F</sub> =5A                           | TA=25°C  |                | 0.73           | -    |      |
|                                                 | TA=125°C |                | 0.58           | -    |      |
| at I <sub>F</sub> =10A                          | TA=25°C  |                | 0.76           | -    |      |
|                                                 | TA=125°C |                | 0.62           | -    |      |
| at I <sub>F</sub> =15A                          | TA=25°C  |                | 0.84           | 0.89 |      |
|                                                 | TA=125°C |                | 0.69           | -    |      |
| Maximum Reverse Current at V <sub>R</sub> =200V | TA=25°C  |                | I <sub>R</sub> | 1.5  |      |
|                                                 | TA=125°C |                | 1              | -    | mA   |

Note2: Pulse test: 300  $\mu s$  pulse width, 1 % duty cycle



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## RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

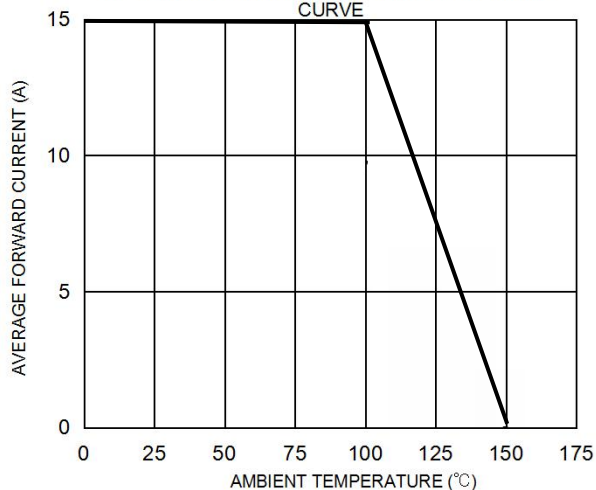


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

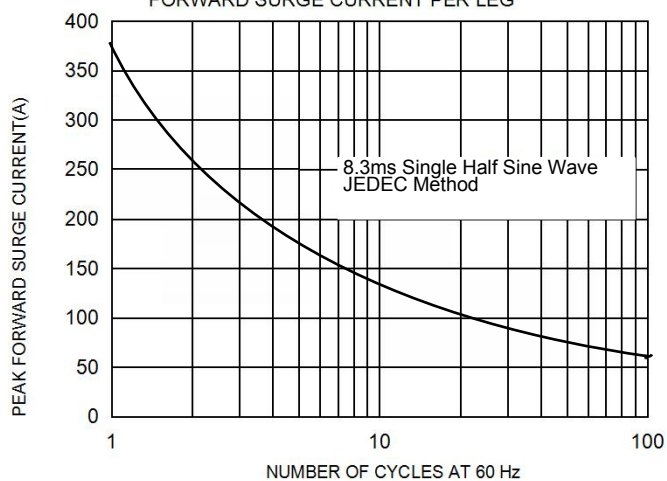


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

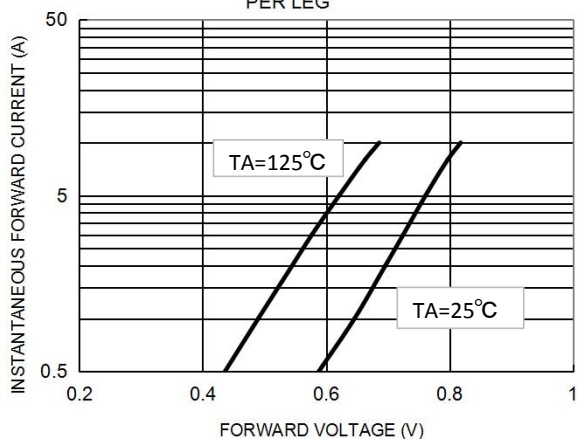


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

