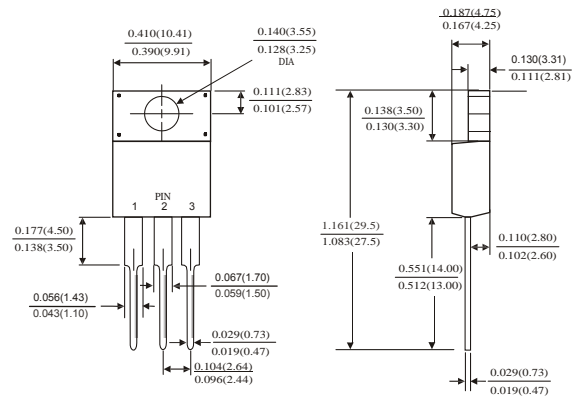


### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- Single rectifier construction
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260°C/10 seconds, 0.25"(6.35mm)from case
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



### ITO-220AB



Dimensions in inches and (millimeters)

### MECHANICAL DATA

- *Case:* JEDEC ITO-220AB molded plastic body
- *Terminals:* Lead solderable per MIL-STD-750,method 2026
- *Polarity:* As marked
- *Mounting Position:* Any
- *Weight:* 0.08ounce, 2.24 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

|  | Symbols          | MBRF 3020CT | MBRF 3030CT | MBRF 3040CT | MBRF 3045CT | MBRF 3060CT | MBRF 3080CT | MBRF 30100CT | MBRF 30150CT | MBRF 30200CT | Units |
|--|------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|-------|
| Maximum repetitive peak reverse voltage  | V <sub>RRM</sub> | 20          | 30          | 40          | 45          | 60          | 80          | 100          | 150          | 200          | Volts |
| Maximum RMS voltage  | V <sub>RMS</sub> | 14          | 21          | 28          | 32          | 42          | 56          | 70           | 105          | 140          | Volts |
| Maximum DC blocking voltage  | V <sub>DC</sub>  | 20          | 30          | 40          | 45          | 60          | 80          | 100          | 150          | 200          | Volts |
| Maximum average forward rectified current(see Fig.1)   | I(AV)            | 15.0        |             |             |             |             |             |              |              |              | Amps  |
|  |                  | 30.0        |             |             |             |             |             |              |              |              |       |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I <sub>FSM</sub> | 250.0       |             |             |             |             |             |              |              |              | Amps  |
| Maximum instantaneous forward voltage at 30.0 A  | V <sub>F</sub>   | 0.60        |             |             | 0.75        |             | 0.85        |              | 0.95         |              | Volts |
| Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)                       | I <sub>R</sub>   | 0.2         |             |             |             |             |             |              |              |              | mA    |
|  |                  | 30          |             |             | 50          |             |             |              |              |              |       |
| Typical thermal resistance (Note 2)  | R <sub>θJC</sub> | 3.0         |             |             |             |             |             |              |              |              | C/W   |
| Operating junction temperature range   | T <sub>J</sub>   | -65 to +150 |             |             |             |             |             |              |              |              | C     |
| Storage temperature range  | T <sub>STG</sub> | -65 to +150 |             |             |             |             |             |              |              |              | C     |

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle

2.Thermal resistance from junction to case

FIG.1-FORWARD CURRENT DERATING CURVE

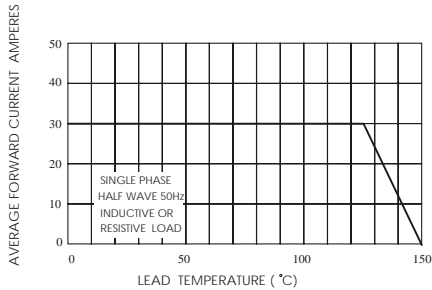


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER DIODE

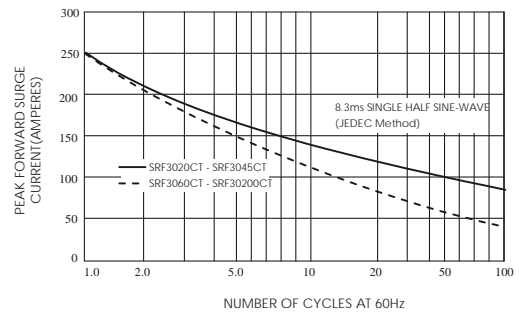


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

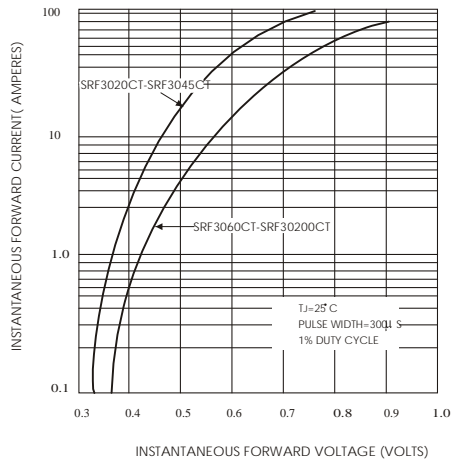


FIG.4-TYPICAL REVERSE CHARACTERISTICS

