

**SCHOTTKY BARRIER RECTIFIER**  
**VOLTAGE RANGE 45 to 200 Volts CURRENT 30.0 Ampere**

**FEATURES**

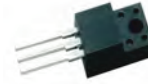
- \* Low switching noise
- \* Low forward voltage drop
- \* Low thermal resistance
- \* High current capability
- \* High switching capability
- \* High surge capability
- \* High reliability

**MECHANICAL DATA**

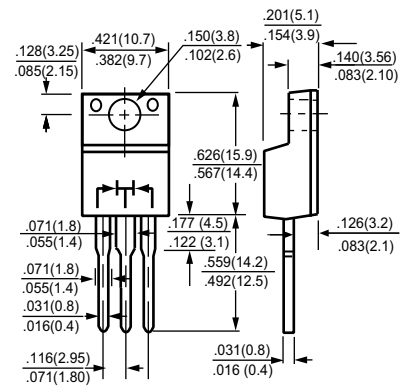
- \* Case: ITO-220 molded plastic
- \* Epoxy: Device has UL flammability classification 94V-O
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any

**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%.



**ITO-220**



**MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)**

| RATINGS                                                                                           | SYMBOL           | IMBR3045C    | IMBR3060C | IMBR30100C | IMBR30150C | IMBR30200C | UNITS            |
|---------------------------------------------------------------------------------------------------|------------------|--------------|-----------|------------|------------|------------|------------------|
| Maximum Recurrent Peak Reverse Voltage                                                            | V <sub>RRM</sub> | 45           | 60        | 100        | 150        | 200        | Volts            |
| Maximum RMS Voltage                                                                               | V <sub>RMS</sub> | 32           | 42        | 70         | 105        | 140        | Volts            |
| Maximum DC Blocking Voltage                                                                       | V <sub>DC</sub>  | 45           | 60        | 100        | 150        | 200        | Volts            |
| Maximum Average Forward Rectified Current at Derating Case Temperature                            | I <sub>O</sub>   | 30           |           |            |            |            | Amps             |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I <sub>FSM</sub> | 200          |           | 230        |            |            | Amps             |
| Typical Current Squared Time                                                                      | I <sup>2</sup> t | 166          |           | 220        |            |            | A <sup>2</sup> S |
| Typical Thermal Resistance (Note 1)                                                               | R <sub>θJC</sub> | 2.0          |           |            |            |            | °C/W             |
|                                                                                                   | R <sub>θJA</sub> | 40           |           |            |            |            |                  |
| Operating Temperature Range                                                                       | T <sub>J</sub>   | -55 to + 150 |           |            |            |            | °C               |
| Storage Temperature Range                                                                         | T <sub>STG</sub> | -55 to + 150 |           |            |            |            | °C               |

**ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)**

| CHARACTERISTICS                                                 |                         | SYMBOL         | IMBR3045C | IMBR3060C | IMBR30100C | IMBR30150C | IMBR30200C | UNITS |
|-----------------------------------------------------------------|-------------------------|----------------|-----------|-----------|------------|------------|------------|-------|
| Maximum Instantaneous Forward Voltage at 15.0A DC               |                         | V <sub>F</sub> | .65       | .75       | .85        | .90        | .95        | Volts |
| Maximum Average Reverse Current<br>at Rated DC Blocking Voltage | @T <sub>A</sub> = 25°C  | I <sub>R</sub> | 0.2       |           | 0.1        |            |            | mA    |
|                                                                 | @T <sub>A</sub> = 150°C |                | 100       |           |            |            |            | mA    |

- NOTES : 1. Thermal Resistance : Heat-sink mounted.  
2. Suffix "A" = Common Anode.  
3. Measured at 1 MHz and applied reverse voltage of 4.0 volts.  
4. "ROHS compliant".

2019-11/47  
REV: O

## RATING AND CHARACTERISTICS CURVES (IMBR3045C THRU IMBR30200C)

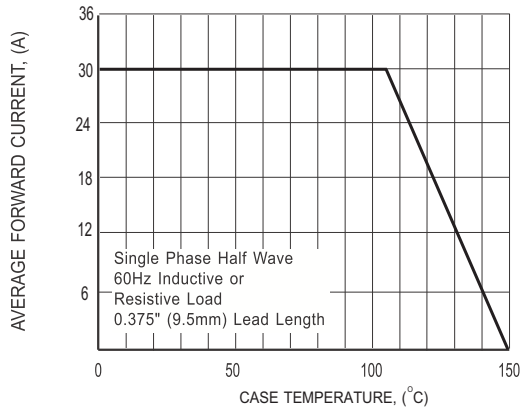


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

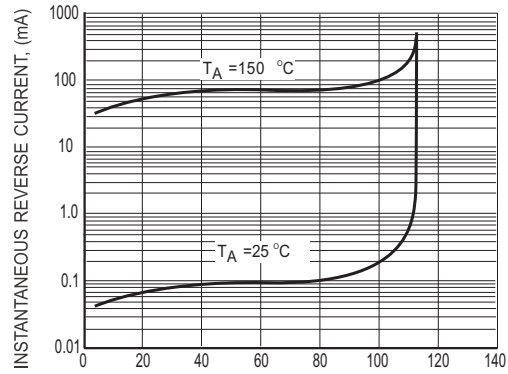


FIG.2 MAXIMUM REVERSE CHARACTERISTICS

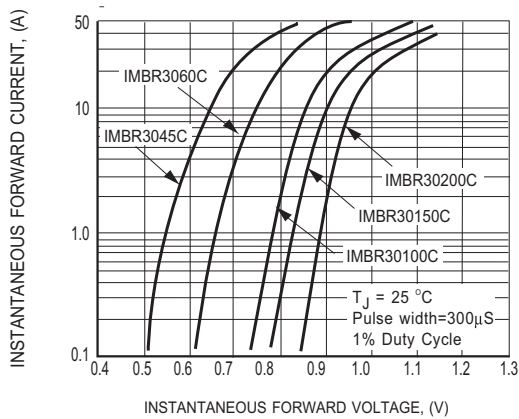


FIG.3 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

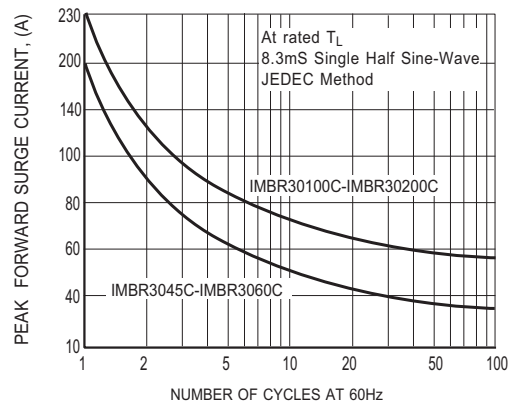


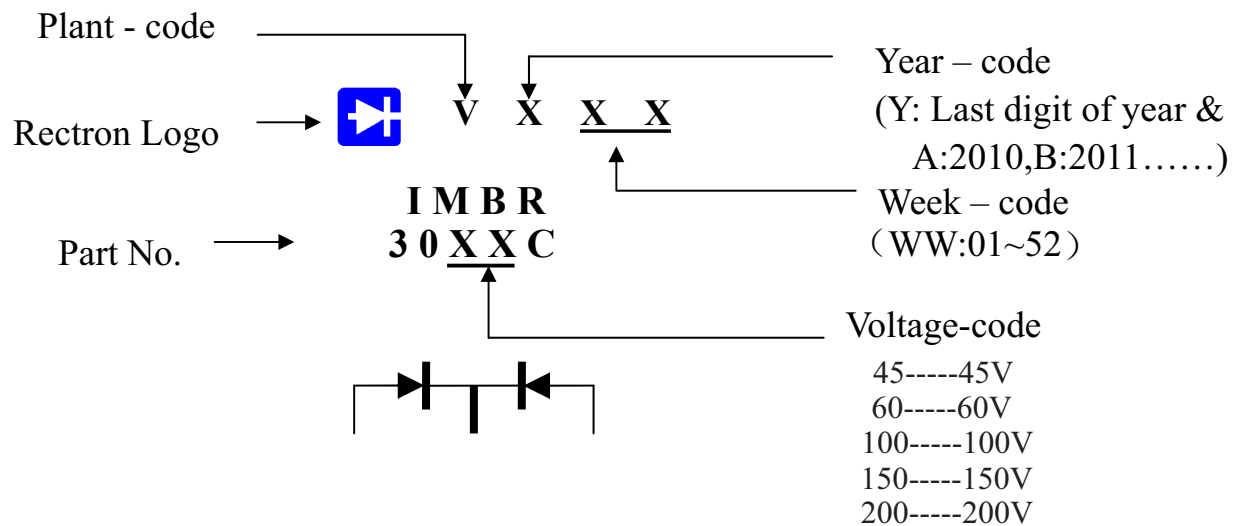
FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



## 1. Internal Circuit



## 2. Marking on the body



## 3. Items marked on the inner box and carton

### 3.1 On the box (for -C)

CUSTOMER  
TYPE  
LOT NO.  
QUANTITY  
Q.A.  
DATE

### 3.2 On the carton

CUSTOMER  
TYPE  
QUANTITY  
LOT NO.  
REMARK

# PACKAGING OF DIODE AND BRIDGE RECTIFIERS

## TUBE PACK

| PACKAGE             | PACKING CODE | EA PER BOX | INNER BOX SIZE<br>(mm) | CARTON SIZE<br>(mm) | EA PER CARTON | WEIGHT(Kg) |
|---------------------|--------------|------------|------------------------|---------------------|---------------|------------|
| (I)TO-220/TO-220(A) | -C           | 2,000      | 550*140*92             | 572*308*120         | 4,000         | 11.80      |

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