RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

# IMBR20H100C THRU IMBR20H200C

## SCHOTTKY BARRIER RECTIFIER

*VOLTAGE RANGE 100 to 200 Volts CURRENT 20.0 Ampere*

### FEATURES

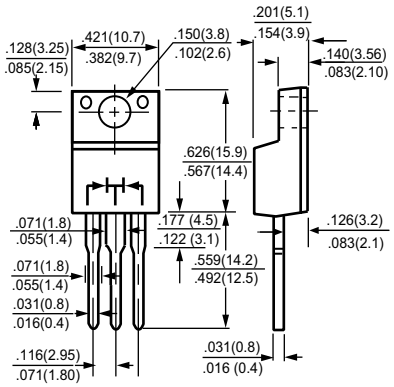
* Low switching noise
* Low forward voltage drop
* Low thermal resistance
* High current capability
* High switching capability
* High surge capabitity
* High reliability

### 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



ITO-220




Dimensions in inches and (millimeters).

### 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%.

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

| RATINGS | SYMBOL | IMBR20H100C | IMBR20H150C | IMBR20H200C | UNITS |
|---|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | $V_{RRM}$ | 100 | 150 | 200 | Volts |
| Maximum RMS Voltage | $V_{RMS}$ | 70 | 105 | 140 | Volts |
| Maximum DC Blocking Voltage | $V_{DC}$ | 100 | 150 | 200 | Volts |
| Maximum Average Forward Rectified Current at Derating Case Temperature | $I_O$ | 20 | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$ | 130 | | | Amps |
| Typical Current Squared Time | $I^2t$ | 70 | | | $A^2S$ |
| Typical Thermal Resistance (Note 1) | $R_{\theta JC}$ | 2.0 | | | °C/W |
| | $R_{\theta JA}$ | 40 | | | |
| Operating Temperature Range | $T_J$ | -55 to + 175 | | | °C |
| Storage Temperature Range | $T_{STG}$ | -55 to + 175 | | | °C |

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

| CHARACTERISTICS | | SYMBOL | IMBR20H100C | IMBR20H150C | IMBR20H200C | UNITS |
|---|---|---|---|---|---|---|
| Maximum Instantaneous Forward Voltage at 10.0A DC | | $V_F$ | .85 | .90 | .95 | Volts |
| Maximum Average Reverse Current | @$T_A$ = 25°C | $I_R$ | 0.1 | | | mA |
| at Rated DC Blocking Voltage | @$T_A$ = 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 (IMBR20H100C THRU IMBR20H200C)

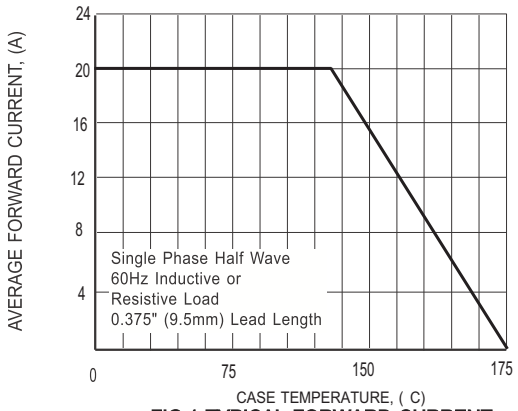



FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

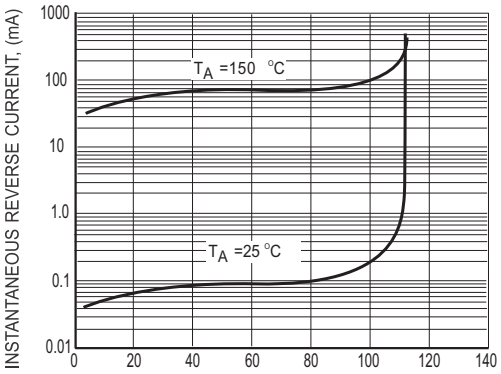



FIG.2 MAXIMUM REVERSE CHARACTERISTICS

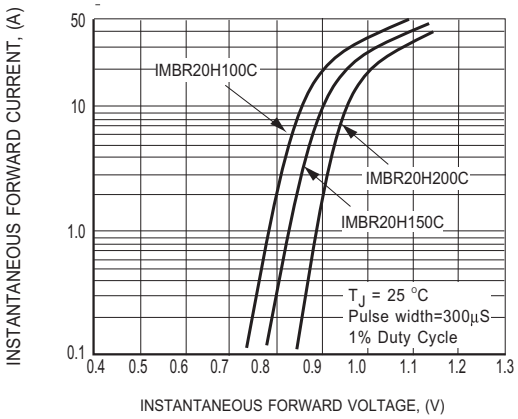



FIG.3 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

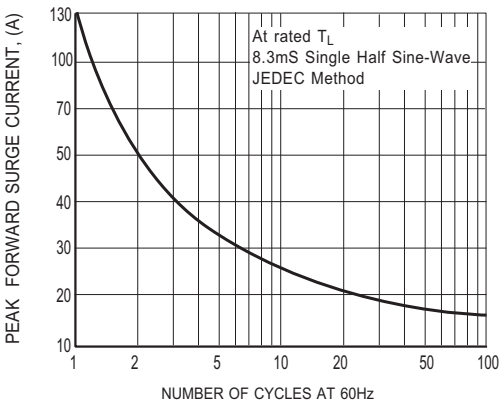


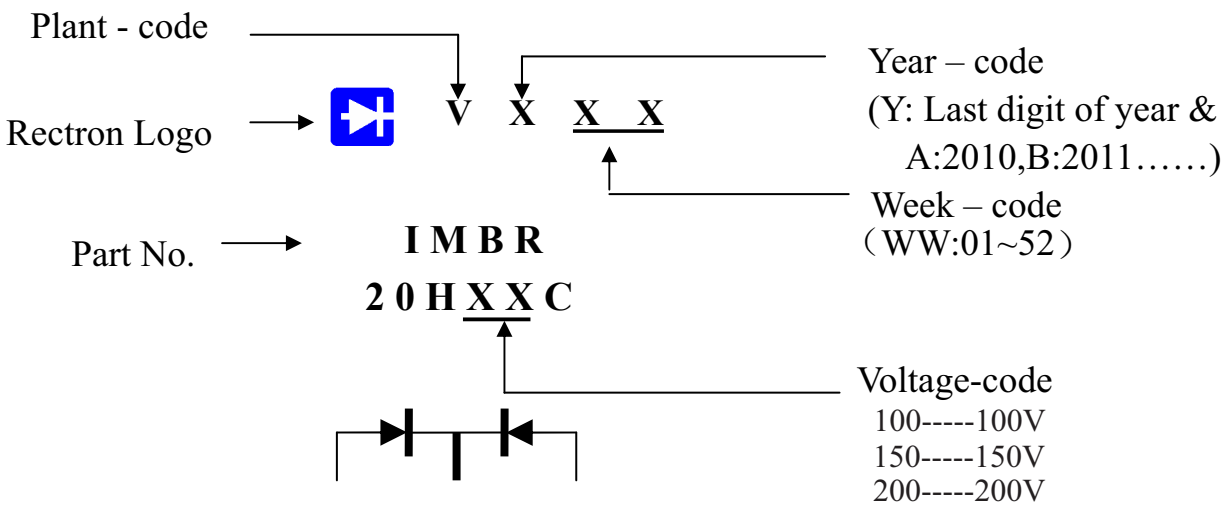

FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

# RECTRON

## 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 (mm) | CARTON SIZE (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 |

# DISCLAIMER NOTICE

Rectron Inc reserves the right to make changes without notice to any product specification herein, to make corrections, modifications, enhancements or other changes. Rectron Inc or anyone on its behalf assumes no responsibility or liability for any errors or inaccuracies. Data sheet specifications and its information contained are intended to provide a product description only. "Typical" parameters which may be included on RECTRON data sheets and/ or specifications can and do vary in different applications and actual performance may vary over time. Rectron Inc does not assume any liability arising out of the application or use of any product or circuit.

Rectron products are not designed, intended or authorized for use in medical, life-saving implant or other applications intended for life-sustaining or other related applications where a failure or malfunction of component or circuitry may directly or indirectly cause injury or threaten a life without expressed written approval of Rectron Inc. Customers using or selling Rectron components for use in such applications do so at their own risk and shall agree to fully indemnify Rectron Inc and its subsidiaries harmless against all claims, damages and expenditures.