

SCHOTTKY DIODES MODULE TYPE 200A

Features

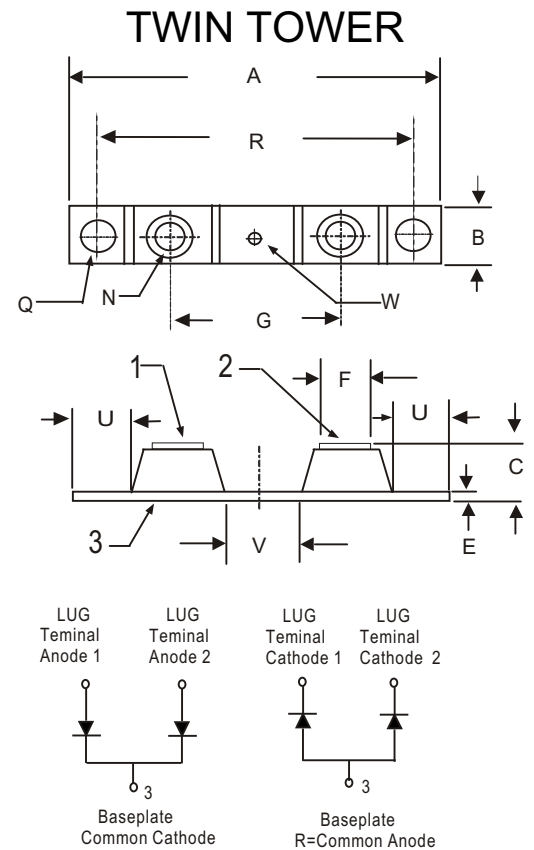
High Surge Capability
Types Up to 100V V_{RRM}

**200Amp Rectifier
20-100 Volts**

Maximum Ratings

Operating Temperature: -40°C to $+175^{\circ}\text{C}$
Storage Temperature: -40°C to $+175^{\circ}\text{C}$

| Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|----------------|--|---------------------|-----------------------------|
| MBR20020CT(R) | 20V | 14V | 20V |
| MBR20030CT(R) | 30V | 21V | 30V |
| MBR20035CT(R) | 35V | 25V | 35V |
| MBR20040CT(R) | 40V | 28V | 40V |
| MBR20045CT(R) | 45V | 32V | 45V |
| MBR20060CT(R) | 60V | 42V | 60V |
| MBR20080CT(R) | 80V | 56V | 80V |
| MBR200100CT(R) | 100V | 70V | 100V |
| | | | |
| | | | |



Electrical Characteristics @ 25 °C Unless Otherwise Specified

| | | | |
|---|-----------------|-------------------------|--|
| Average Forward Current (Per pkg) | $I_{F(AV)}$ | 200A | $T_C = 136^{\circ}\text{C}$ |
| Peak Forward Surge Current (Per leg) | I_{FSM} | 1500A | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage (Per leg) NOTE (1) | V_F | 0.65V 0.75V 0.84V | (MBR20020CT-MBR20045CT) (MBR20060CT) (MBR20080CT-MBR200100CT) $I_{FM} = 100A; T_j = 25^{\circ}\text{C}$ |
| Maximum Instantaneous Reverse Current At Rated DC Blocking Voltage (Per leg) NOTE (1) | I_R | 5.0 mA 200 mA | $T_j = 25^{\circ}\text{C}$ $T_j = 125^{\circ}\text{C}$ |
| Maximum Thermal Resistance Junction To Case (Per leg) | $R_{\theta jc}$ | 0.8°C/W | |

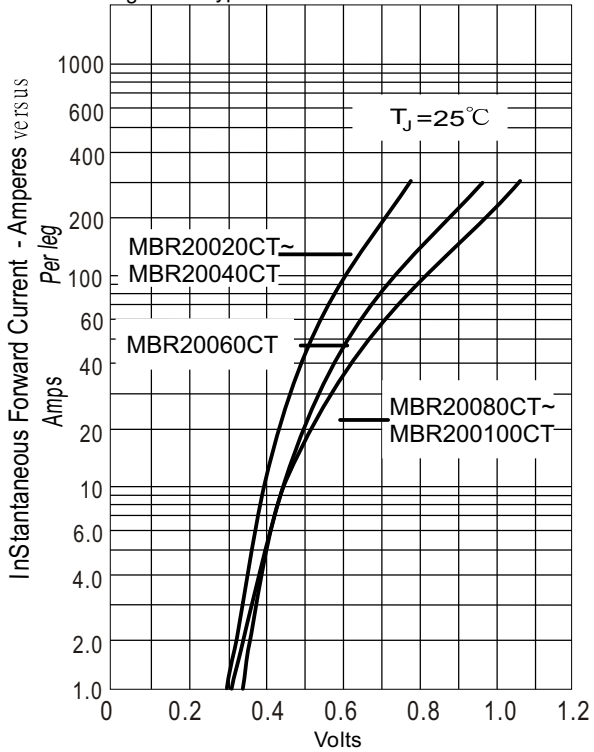
| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|-------|-----------|-------|------|
| | INCHES | | MM | | |
| A | ---- | 3.360 | ---- | 92.20 | |
| B | 0.700 | 0.800 | 17.78 | 20.32 | |
| C | ---- | 0.650 | ---- | 16.51 | |
| E | 0.120 | 0.130 | 3.05 | 3.30 | |
| F | 0.490 | 0.510 | 12.45 | 12.95 | |
| G | 1.379 BSC | | 35.02 BSC | | |
| H | ---- | ---- | ---- | ---- | |
| N | 1/4 | - 20 | UNC | FULL | |
| Q | 0.275 | 0.290 | 6.99 | 7.37 | 2 PL |
| R | 3.150 BSC | | 80.01 BSC | | |
| U | 0.600 | ---- | 15.24 | ---- | |
| V | 0.312 | 0.370 | 7.92 | 9.40 | |
| W | 0.180 | 0.195 | 4.57 | 4.95 | |

NOTE :

(1) Pulse Test: Pulse Width 300 usec, Duty Cycle < 2%

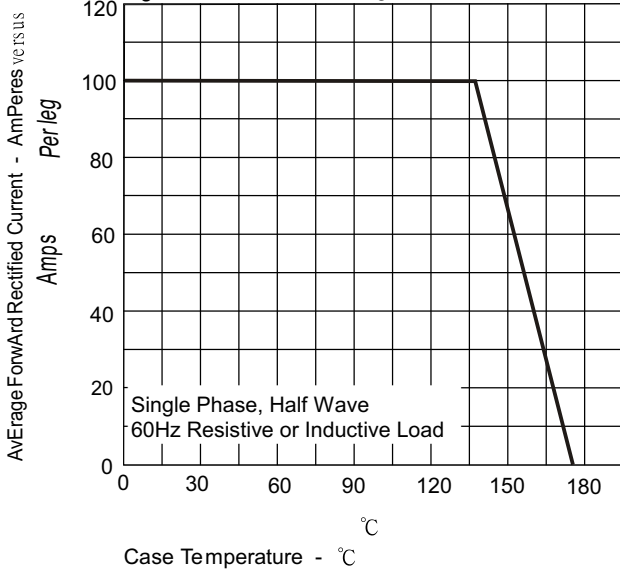
MBR20020CT(R) THRU MBR200100CT(R)

Figure .1- Typical Forward Characteristics



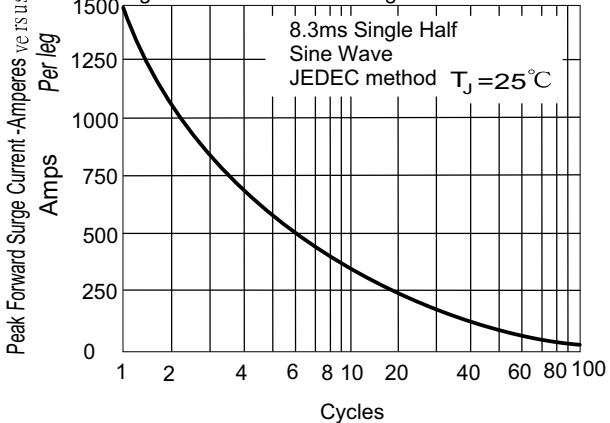
Instantaneous Forward Voltage - Volts

Figure .2- Forward Derating Curve



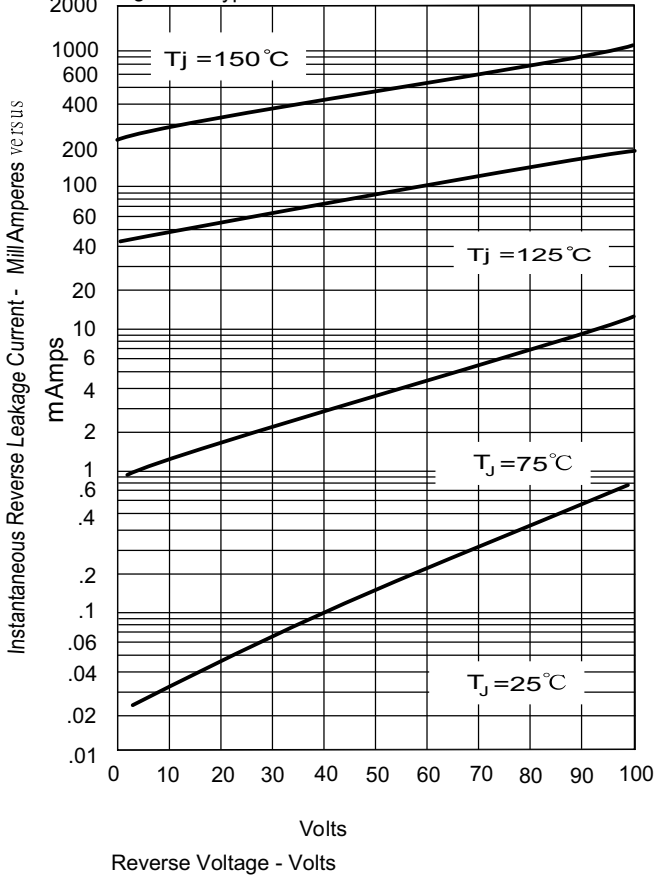
Case Temperature - °C

Figure .3- Peak Forward Surge Current



Number Of Cycles At 60Hz - Cycles

Figure .4- Typical Reverse Characteristics



Reverse Voltage - Volts