



Micro Commercial Components
 21201 Itasca Street Chatsworth
 CA 91311
 Phone: (818) 701-4933
 Fax: (818) 701-4939

MBR24020 THRU MBR240100

240 Amp Schottky Barrier Rectifier 20 to 100 Volts

Features

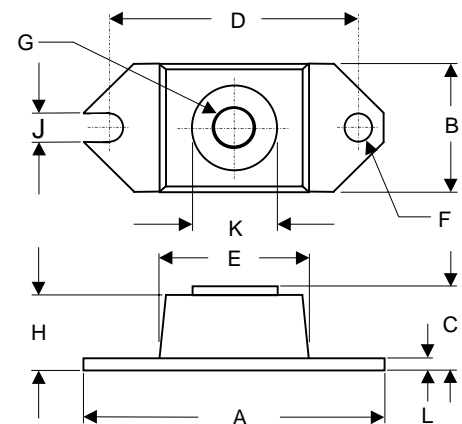
- Metal of siliconrectifier, majonty carrier conducton
- Guard ring for transient protection
- Low power loss high efficiency
- High surge capacity, High current capability

Maximum Ratings

- Operating Temperature: -65°C to +150°C
- Storage Temperature: -65°C to +150°C

| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|--|---------------------|-----------------------------|
| MBR24020 | 20V | 14V | 20V |
| MBR24030 | 30V | 21V | 30V |
| MBR24035 | 35V | 24.5V | 35V |
| MBR24040 | 40V | 28V | 40V |
| MBR24045 | 45V | 31.5V | 45V |
| MBR24060 | 60V | 42V | 60V |
| MBR24080 | 80V | 56V | 80V |
| MBR240100 | 100V | 70V | 100V |

HALF PACK



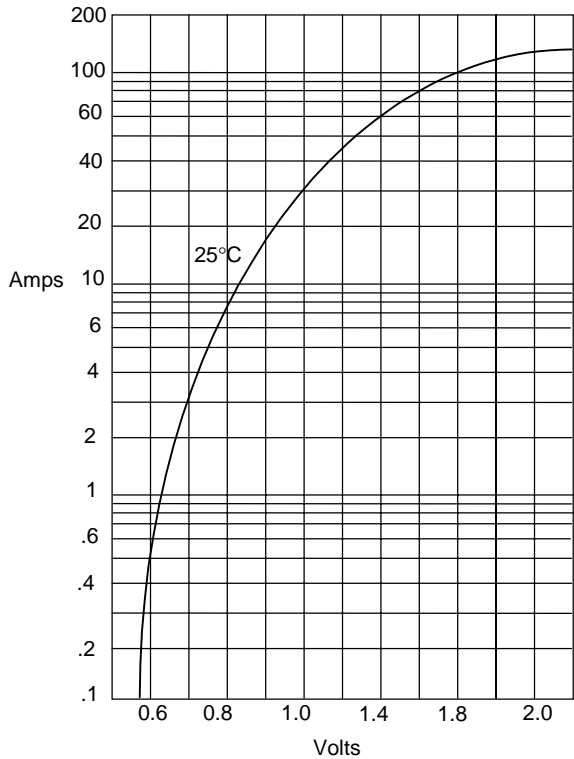
Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|-------|---|
| Average Forward Current | $I_{F(AV)}$ | 240 A | $T_L = 140^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 3300A | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage | V_F | | $I_{FM} = 240.0\text{A};$ $T_A = 25^\circ\text{C}$ |
| MBR24020-24045 | | .63 V | |
| MBR24060 | | .75 V | |
| MBR24080-240100 | | .84 V | |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 8mA | $T_A = 25^\circ\text{C}$ |
| Typical Junction Capacitance | C_J | 300pF | Measured at 1.0MHz, $V_R=4.0\text{V}$ |

| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|-------|----------|-------|------|
| | INCH ES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | 1.520 | 1.560 | 38.86 | 39.62 | |
| B | .725 | .775 | 18.42 | 19.69 | |
| C | .605 | .625 | 15.37 | 15.88 | |
| D | 1.182 | 1.192 | 30.02 | 30.28 | |
| E | .745 | .755 | 18.92 | 18.18 | |
| F | .152 | .160 | 3.86 | 4.06 | ∅ |
| G | 1/4 - 20 | | UNC - 2B | | |
| H | .570 | .580 | 14.49 | 14.73 | |
| J | .15 | .160 | 3.96 | 4.06 | |
| K | .495 | .505 | 12.57 | 12.83 | ∅ |
| L | .120 | .130 | 3.05 | 3.30 | |

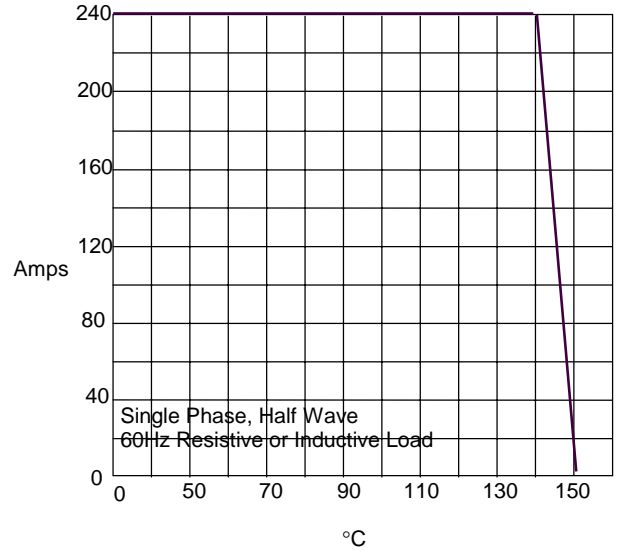
*Pulse Test: Pulse Width 300µsec, Duty Cycle 1%

Figure 1
Typical Forward Characteristics



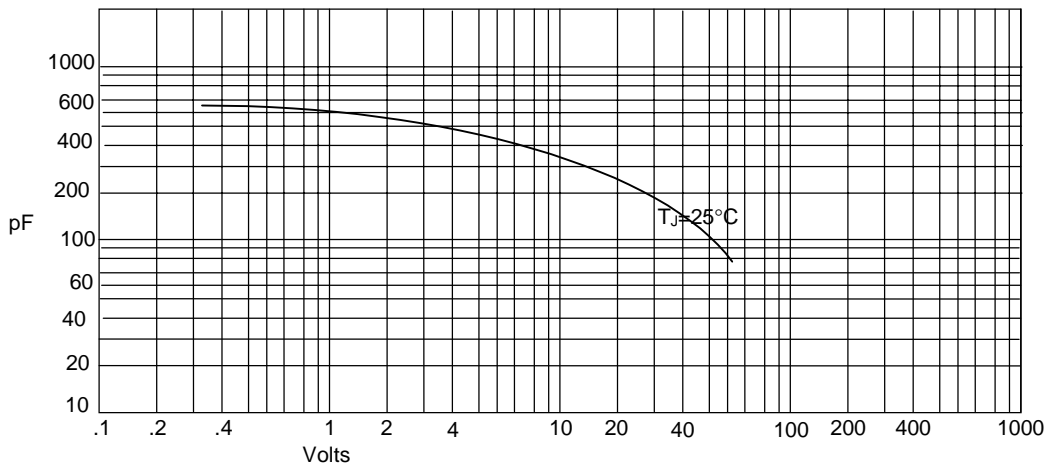
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



Average Forward Rectified Current - Amperes versus
Ambient Temperature - °C

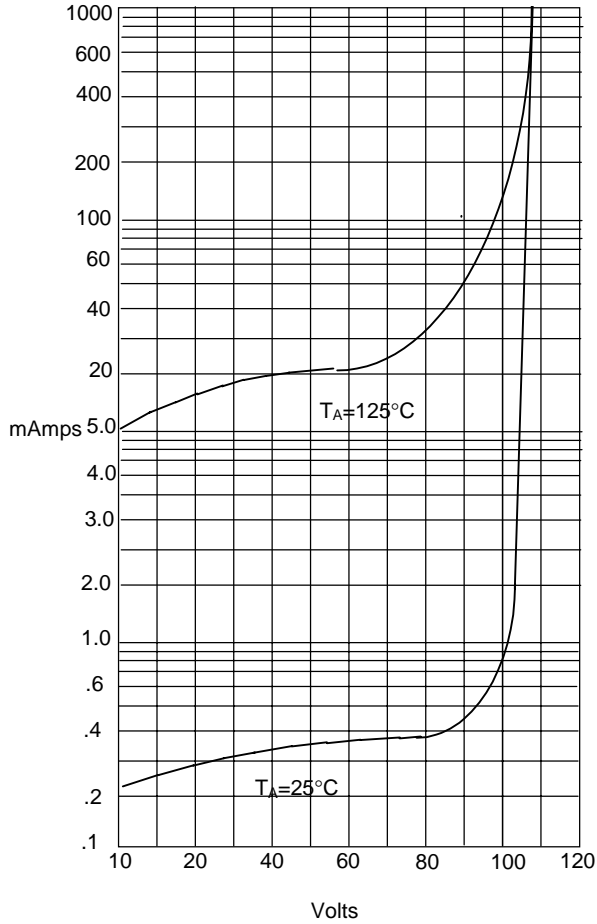
Figure 3
Junction Capacitance



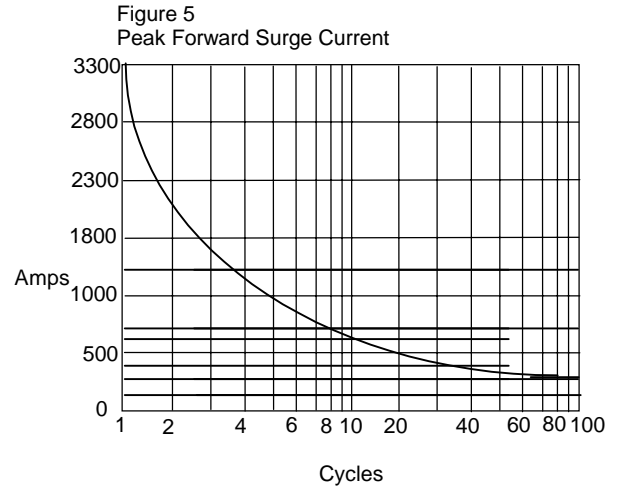
Junction Capacitance - pF versus
Reverse Voltage - Volts



Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes versus
Percent Of Rated Peak Reverse Voltage - Volts



Peak Forward Surge Current - Amperes versus
Number Of Cycles At 60Hz - Cycles