



Micro Commercial Components
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Features

- High Surge Capacity
- Low Power Loss, High Efficiency
- High Current Capability, Low V_F
- Metal of silicon Rectifier, majority Carrier Conduction
- Guard Ring For Transient Protection
- Plastic Package Has UL Flammability Classification 94V-0

Maximum Ratings

- Operating Temperature: -55°C to $+150^{\circ}\text{C}$
- Storage Temperature: -55°C to $+150^{\circ}\text{C}$

| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|--|---------------------|-----------------------------|
| MBR3020W | 20V | 14V | 20V |
| MBR3030W | 30V | 21V | 30V |
| MBR3035W | 35V | 24.5V | 35V |
| MBR3040W | 40V | 28V | 40V |
| MBR3045W | 45V | 31.5V | 45V |
| MBR3060W | 60V | 42V | 60V |
| MBR3080W | 80V | 56V | 80V |
| MBR30100W | 100V | 70V | 100V |

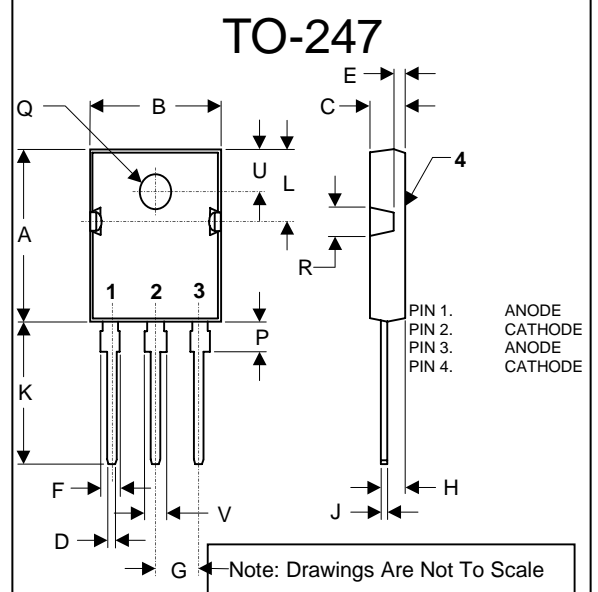
Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|--|-------------|----------------------|--|
| Average Forward Current | $I_{F(AV)}$ | 30.0A | $T_C=105^{\circ}\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 200A | 8.3ms half sine |
| Maximum Instantaneous Forward Voltage MBR3020W-3045W MBR3060W MBR3080W-30100W | V_F | .63V .75V .84V | $I_{FM}=30.0A$ $T_A=25^{\circ}\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 1.0mA | $T_C=25^{\circ}\text{C}$ |
| Typical Junction Capacitance | C_j | 500pF | Measured at 1.0MHz, $V_R=4.0V$ |

Pulse test: Pulse width 300 usec, duty cycle 2%.

MBR3020W THRU MBR30100W

30 Amp Schottky Barrier Rectifier 20 to 100 Volts



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|-------|-------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MIN | |
| A | .803 | .823 | 20.40 | 20.90 | |
| B | .608 | .628 | 15.44 | 15.95 | |
| C | .185 | .205 | 4.70 | 5.21 | |
| D | .043 | .051 | 1.09 | 1.30 | |
| E | .059 | .064 | 1.50 | 1.63 | |
| F | .071 | .086 | 1.80 | 2.18 | |
| G | .215 | BSC | 5.45 | BSC | |
| H | .101 | .130 | 2.56 | 2.87 | |
| J | .019 | .027 | 0.48 | 0.68 | |
| K | .613 | .633 | 15.57 | 16.08 | |
| L | .286 | .295 | 7.26 | 7.50 | |
| P | .122 | .133 | 3.10 | 3.38 | |
| Q | .138 | .145 | 3.50 | 3.70 | |
| R | .130 | .150 | 3.30 | 3.80 | |
| U | .209 | BSC | 5.30 | BSC | |
| V | .120 | .134 | 3.05 | 3.40 | |

MBR3020W thru MBR30100W

FIG.1 - FORWARD CURRENT DERATING CURVE

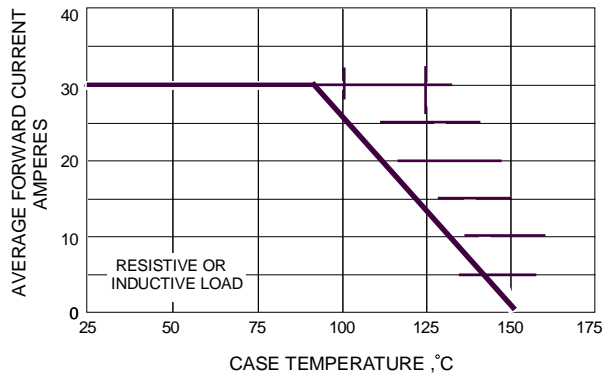


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

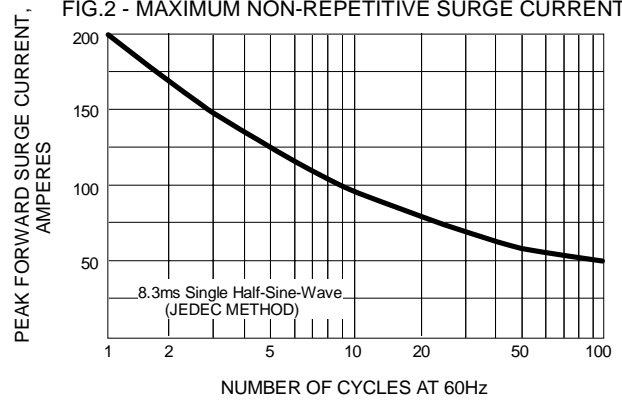


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

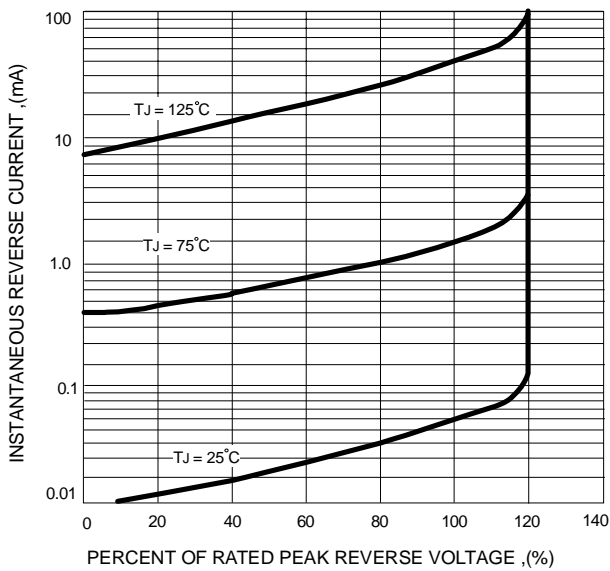


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

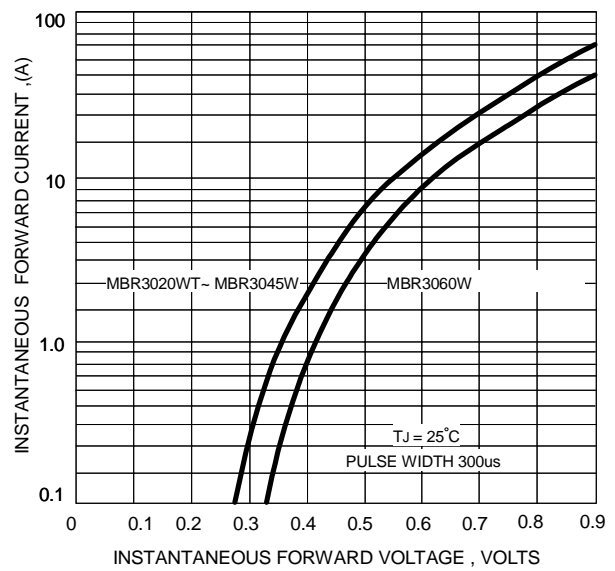


FIG.5 - TYPICAL JUNCTION CAPACITANCE

