



Micro Commercial Components
 20736 Marilla Street Chatsworth
 CA 91311
 Phone: (818) 701-4933
 Fax: (818) 701-4939

MBR870 Thru MBR8100

8 Amp Schottky Rectifier 70-100 Volts

Features

- High Current Capability, Low VF
- Low Power Loss, High Efficiency
- Guard Ring for Transient Protection
- Marking : type number
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1

Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +175°C
- Maximum Thermal Resistance: $R_{\theta JC} = 2.0^{\circ}\text{C}/\text{W}$ junction to case

| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|--|---------------------|-----------------------------|
| MBR870 | 70V | 49V | 70V |
| MBR880 | 80V | 56V | 80V |
| MBR890 | 90V | 63V | 90V |
| MBR8100 | 100V | 70V | 100V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|------------------------------|--|
| Average Forward Current | $I_{F(AV)}$ | 8A | $T_C = 110^{\circ}\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 125A | 8.3ms, half sine |
| Voltage Rate of Change | dv/dt | 10000 | Rated V_R |
| Maximum Instantaneous Forward Voltage | V_F | .85V .75V .95V .85V | $I_{FM} = 8A @ T_J = 25^{\circ}\text{C}$ $I_{FM} = 8A @ T_J = 125^{\circ}\text{C}$ $I_{FM} = 16A @ T_J = 25^{\circ}\text{C}$ $I_{FM} = 16A @ T_J = 125^{\circ}\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 0.15mA 100mA | $T_J = 25^{\circ}\text{C}$ $T_J = 125^{\circ}\text{C}$ |
| Typical Junction Capacitance | C_J | 280pF | Measured at 1.0MHz, $V_R=4.0V$ |

Notes:1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

TO-220AC

PIN 1 CASE
 PIN 2

| DIM | INCHES | | MM | | NOTE |
|-----|--------|------|-------|-------|------|
| | MIN | MAX | MIN | MAX | |
| A | .560 | .625 | 14.22 | 15.88 | |
| B | .380 | .420 | 9.65 | 10.67 | |
| C | .100 | .135 | 2.54 | 3.43 | |
| D | .230 | .270 | 5.84 | 6.86 | |
| F | ----- | .250 | ----- | 6.35 | |
| G | .500 | .580 | 12.70 | 14.73 | |
| H | .190 | .210 | 4.83 | 5.33 | |
| I | .020 | .045 | 0.51 | 1.14 | |
| J | .012 | .025 | 0.30 | 0.64 | |
| K | .139 | .161 | 3.53 | 4.09 | ∅ |
| L | .140 | .190 | 3.56 | 4.83 | |
| M | .045 | .055 | 1.14 | 1.40 | |
| N | .080 | .115 | 2.03 | 2.92 | |



KERSEMI

MBR870 THRU MBR8100

FIG.1 - FORWARD CURRENT DERATING CURVE

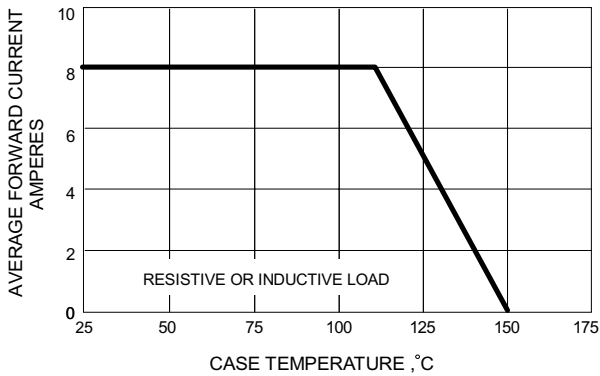


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

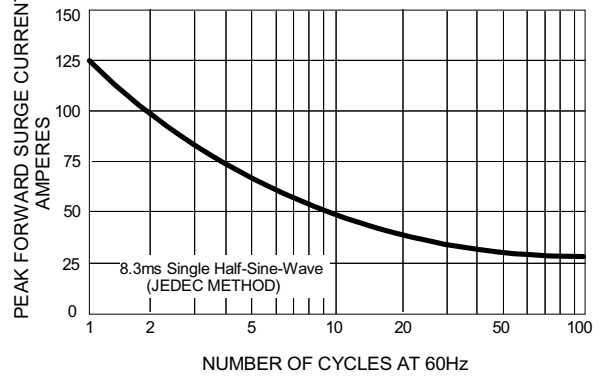


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

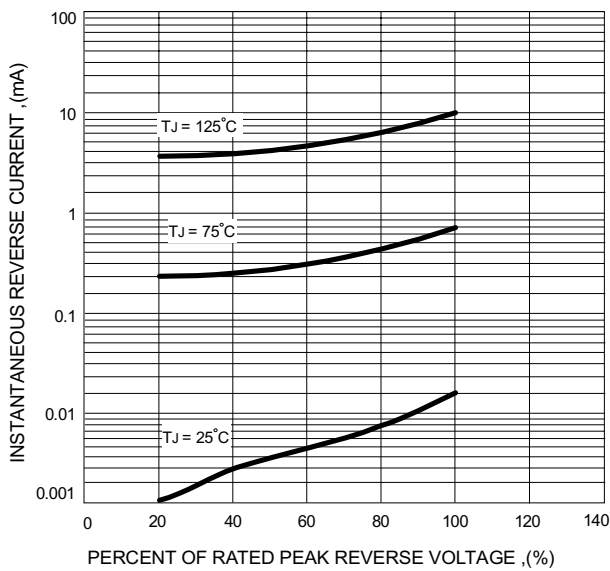


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

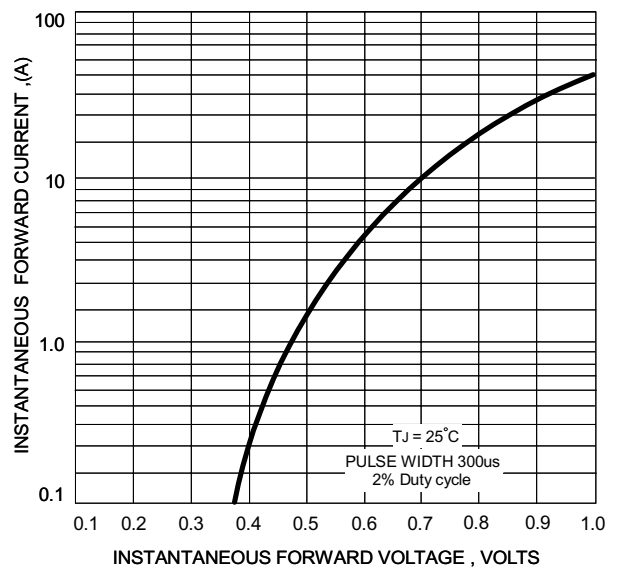


FIG.5 - TYPICAL JUNCTION CAPACITANCE

