



Micro Commercial Components  
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# MBRD320L THUR MBRD360L

## Features

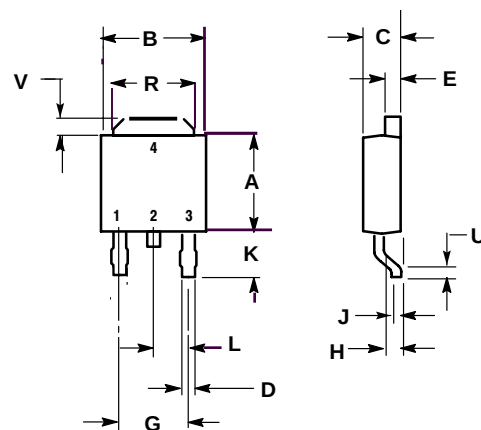
- Low Switching Noise
- Low Forward Voltage Drop
- High Current Capability
- High Surge Current Capability

## Maximum Ratings

- Operating Junction Temperature: -50°C to +125°C
- Storage Temperature: -50°C to +150°C

| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|----------------------------------------|---------------------|-----------------------------|
| MBRD320L           | MBRD320L       | 20V                                    | 14V                 | 20V                         |
| MBRD330L           | MBRD330L       | 30V                                    | 21V                 | 30V                         |
| MBRD340L           | MBRD340L       | 40V                                    | 28V                 | 40V                         |
| MBRD350L           | MBRD350L       | 50V                                    | 35V                 | 50V                         |
| MBRD360L           | MBRD360L       | 60V                                    | 42V                 | 60V                         |

## DPAK



| DIM | INCHES |       | MILLIMETERS |      |
|-----|--------|-------|-------------|------|
|     | MIN    | MAX   | MIN         | MAX  |
| A   | 0.209  | 0.225 | 5.30        | 5.70 |
| B   | 0.252  | 0.268 | 6.40        | 6.80 |
| C   | 0.092  | 0.108 | 2.35        | 2.75 |
| D   | 0.016  | 0.032 | 0.40        | 0.80 |
| E   | 0.016  | 0.024 | 0.40        | 0.60 |
| G   | 0.180  |       | 4.60        |      |
| H   | 0.035  | 0.051 | 0.90        | 1.30 |
| J   | 0.020  |       | 0.50        |      |
| K   | 0.090  | 0.106 | 2.30        | 2.70 |
| L   | 0.090  |       | 2.30        |      |
| R   | 0.197  | 0.213 | 5.00        | 5.40 |
| U   | 0.020  |       | 0.50        |      |
| V   | 0.063  |       | 1.50        |      |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

|                                                                                 |             |                |                                                       |
|---------------------------------------------------------------------------------|-------------|----------------|-------------------------------------------------------|
| Average Forward Current                                                         | $I_{F(AV)}$ | 3.0A           | $T_C = 125^\circ\text{C}$                             |
| Peak Forward Surge Current                                                      | $I_{FSM}$   | 75A            | 8.3ms, half sine                                      |
| Maximum Instantaneous Forward Voltage<br>MBRD320L~MBRD340L<br>MBRD350L~MBRD360L | $V_F$       | 0.55V<br>0.70V | $I_{FM} = 3.0A$ ;<br>$T_J = 25^\circ\text{C}^*$       |
| Maximum DC Reverse Current At Rated DC Blocking Voltage                         | $I_R$       | 0.3mA<br>20mA  | $T_C = 25^\circ\text{C}$<br>$T_C = 125^\circ\text{C}$ |

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 2%

**MBRD320L THRU MBRD360L**

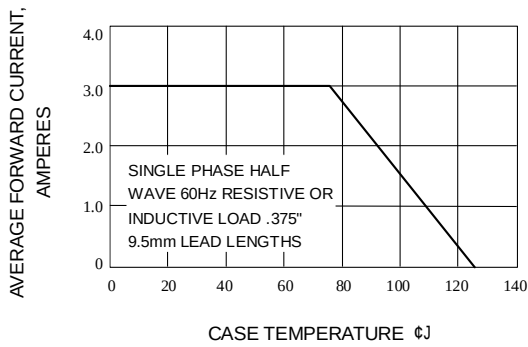


Fig. 1-FORWARD CURRENT DERATING CURVE

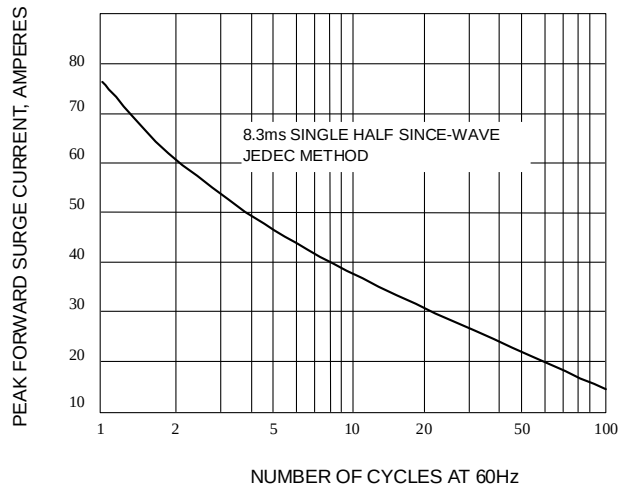


Fig. 2-MAXIMUM NON-REPETITIVE SURGE CURRENT

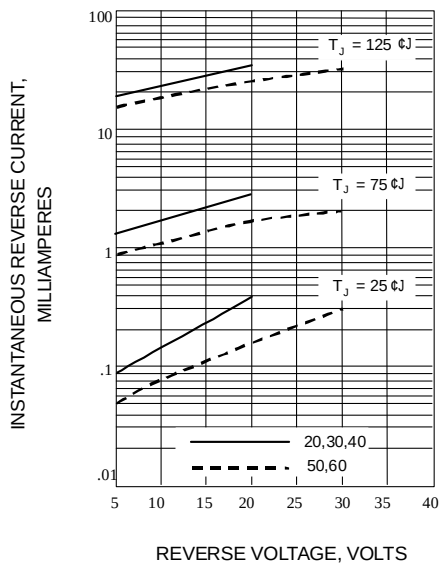


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

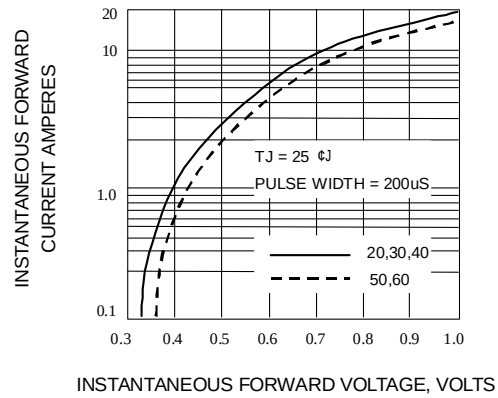


Fig. 4-TYPICAL FORWARD CHARACTERISTICS

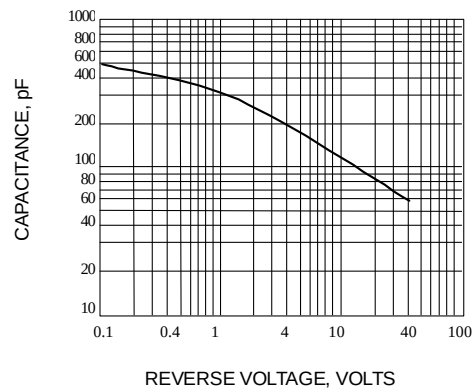


Fig. 5-TYPICAL JUNCTION CAPACITANCE