

Micro Commercial Components

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Features

- Low Power Loss
- High Efficiency
- Low Forward Voltage , High Current Capability
- High surge capacity
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

Maximum Ratings

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

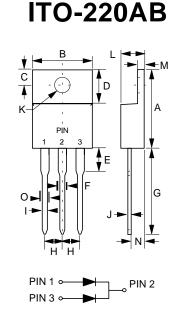
| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------------|-------------------|--|---------------------------|--------------------------------------|
| MBR1020FCT | MBR1020FCT | 20V | 14V | 20V |
| MBR1030FCT | MBR1030FCT | 30V | 21V | 30V |
| MBR1040FCT | MBR1040FCT | 40V | 28V | 40V |
| MBR1045FCT | MBR1045FCT | 45V | 31.5V | 45V |
| MBR1050FCT | MBR1050FCT | 50V | 35V | 50V |
| MBR1060FCT | MBR1060FCT | 60V | 42V | 60V |
| MBR1080FCT | MBR1080FCT | 80V | 56V | 80V |
| MBR10100FCT | MBR10100FCT | 100V | 70V | 100V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| Average Forward | I _{F(AV)} | 10 A | $T_{\rm C} = 100^{\circ}{\rm C}$ |
|--------------------|--------------------|-------|----------------------------------|
| Current | | | |
| Peak Forward Surge | I _{FSM} | 120A | 8.3ms, half sine |
| Current | | | |
| Maximum | | | |
| Instantaneous | | | |
| Forward Voltage | | | TJ= 25°C |
| 1020FCT-1045FCT | VF | .55V | $I_{FM} = 5A;$ |
| 1050FCT-1060FCT | - 1 | .75V | - i wi • • • • |
| 1080FCT-10100FCT | | .85V | |
| Mariana DO | | | |
| Maximum DC | | | |
| Reverse Current At | | | |
| Rated DC Blocking | | | |
| Voltage | I _R | 0.1mA | $T_{\rm C} = 25^{\circ}{\rm C}$ |
| | | 50mA | $T_{C}^{\circ} = 100^{\circ}C$ |
| 8 | | l | <u> </u> |

MBR1020FCT THRU MBR10100FCT

10 Amp Schottky Barrier Rectifier 20 to 100 Volts



| | | DIME | INSIONS | | |
|-----|--------|------|---------|-------|------|
| | INCHES | | ММ | | |
| DIM | MIN | MAX | MIN | MAX | NOTE |
| Α | .583 | .606 | 14.80 | 15.40 | |
| В | | .406 | | 10.30 | |
| С | .100 | .112 | 2.55 | 2.85 | |
| D | .248 | .272 | 6.30 | 6.90 | |
| Е | | .161 | | 4.10 | |
| F | | .071 | | 1.80 | |
| G | .512 | .543 | 13.00 | 13.80 | |
| Н | .100 | | 2.55 | | |
| 1 | | .035 | | 0.90 | |
| J | | .032 | | 0.80 | |
| К | .118 | .134 | 3.00 | 3.40 | Ø |
| L | | .189 | | 4.80 | |
| М | | .130 | | 3.30 | |
| Ν | .098 | .114 | 2.50 | 2.90 | |
| 0 | | .055 | | 1.40 | |

www.mccsemi.com

MBR1020FCT thru MBR10100FCT



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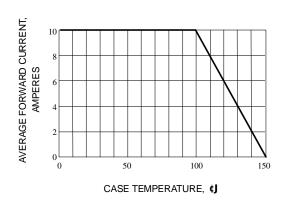
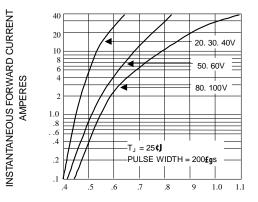


Fig. 1-FORWARD CURRENT DERATING CURVE



INSTANTANEOUS FORWARD CHARACTERISTIC

Fig. 2-TYPICAL INSTNATANEOUS FORWARD CHARACTERISTIC

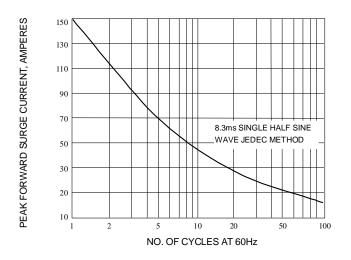


Fig. 3-MAXIMUM NON-REPETITIVE SURGE CURRENT

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