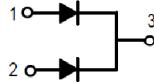


Silicon Schottky Diode, 120A

Features

- Guard Ring Protection
- Low forward voltage drop
- High surge current capability
- Up to 100V V_{RRM}


TWIN TOWER PACKAGE

Maximum Ratings ($T_J = 25^\circ\text{C}$ unless otherwise specified)

| Parameter | Symbol | Conditions | MBR12020CT (R) | MBR12030CT (R) | MBR12035CT (R) | MBR12040CT (R) | Units |
|------------------------------------------------------|-------------|---------------------------------------------------|-------------------|-------------------|-------------------|-------------------|-------|
| Repetitive peak reverse voltage | V_{RRM} | | 20 | 30 | 35 | 40 | V |
| RMS reverse voltage | V_{RMS} | | 14 | 21 | 25 | 28 | V |
| DC blocking voltage | V_{DC} | | 20 | 30 | 35 | 40 | V |
| Average forward current | $I_{F(AV)}$ | $T_C \leq 140^\circ\text{C}$ | 120 | 120 | 120 | 120 | A |
| Non-repetitive forward surge current, half sine-wave | I_{FSM} | $T_C = 25^\circ\text{C}$ $t_p = 8.3\text{ ms}$ | 800 | 800 | 800 | 800 | A |

Electrical Characteristics ($T_J = 25^\circ\text{C}$ unless otherwise specified)

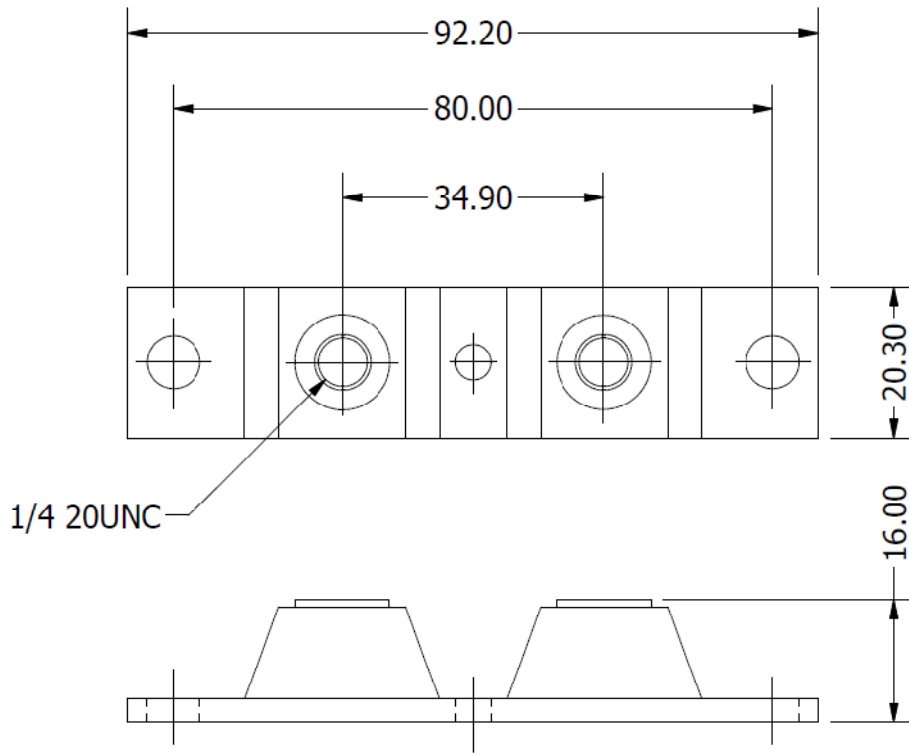
| Parameter | Symbol | Conditions | MBR12020CT (R) | MBR12030CT (R) | MBR12035CT (R) | MBR12040CT (R) | Units |
|--------------------|--------|--------------------------------------------------|-------------------|-------------------|-------------------|-------------------|-------|
| DC forward voltage | V_F | $I_F = 60\text{ A}$ $T_J = 25^\circ\text{C}$ | 0.68 | 0.68 | 0.68 | 0.68 | V |
| DC reverse current | I_R | $V_R = 20\text{ V}$ $T_J = 25^\circ\text{C}$ | 3 | 3 | 3 | 3 | mA |
| | | $V_R = 20\text{ V}$ $T_J = 125^\circ\text{C}$ | 200 | 200 | 200 | 200 | |

Thermal Characteristics ($T_J = 25^\circ\text{C}$ unless otherwise specified)

| Parameter | Symbol | | MBR12020CT (R) | MBR12030CT (R) | MBR12035CT (R) | MBR12040CT (R) | Units |
|--------------------------------------|----------------|--|-------------------|-------------------|-------------------|-------------------|--------------------|
| Thermal resistance junction to case | R_{thJ-C} | | 0.8 | 0.8 | 0.8 | 0.8 | $^\circ\text{C/W}$ |
| Operating, storage temperature range | T_J, T_{stg} | | - 40 to +175 | - 40 to +175 | - 40 to +175 | - 40 to +175 | $^\circ\text{C}$ |



Package Outline



ALL DIMENSIONS IN MM

Ordering Table

| <i>MBR</i> | <i>120</i> | <i>20</i> | <i>CT</i> |
|------------|------------|-----------|-----------|
| 1 | 2 | 3 | 4 |

- 1 – Device Type
 - > MBR = Schottky Barrier Diode Module
- 2 – Current Rating = $I_{F(AV)}$
- 3 – Voltage = code x 10 = V_{RRM}
- 4 – Polarity
 - > CT = Normal (Cathode to Base)
 - > CTR = Reverse (Anode to Base)