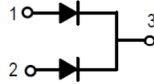


### Silicon Schottky Diode, 500A

#### Features

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



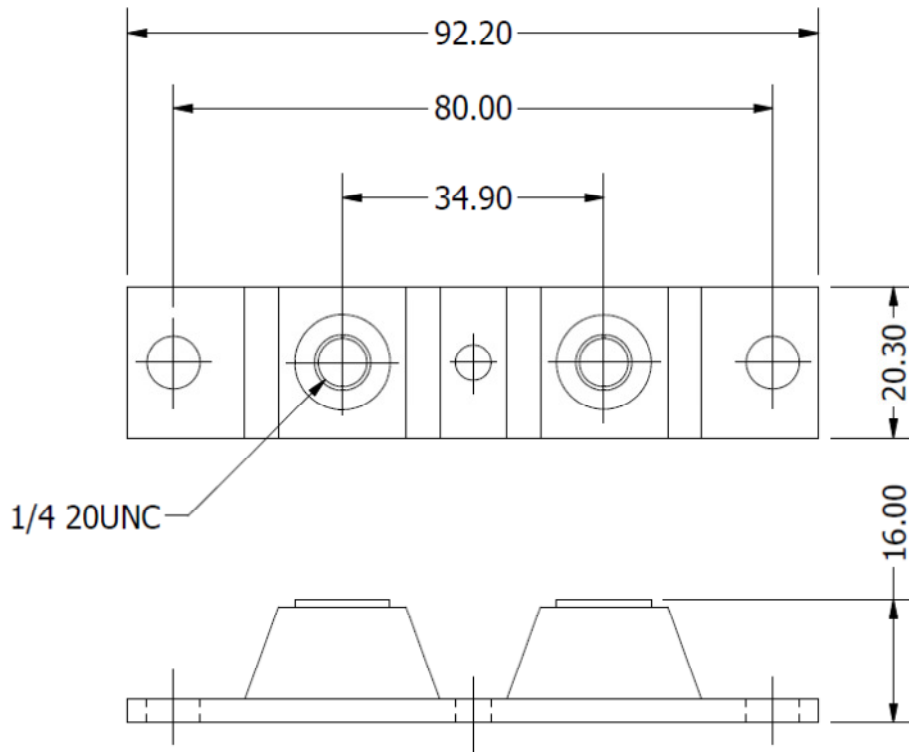
TWIN TOWER PACKAGE

Maximum Ratings ( $T_J = 25^\circ\text{C}$ unless otherwise specified)							
Parameter	Symbol	Conditions	MBR50045CT (R)	MBR50060CT (R)	MBR50080CT (R)	MBR500100C T(R)	Units
Repetitive peak reverse voltage	$V_{RRM}$		45	60	80	100	V
RMS reverse voltage	$V_{RMS}$		32	42	56	70	V
DC blocking voltage	$V_{DC}$		45	60	80	100	V
Average forward current	$I_{F(AV)}$	$T_C \leq 100^\circ\text{C}$	500	500	500	500	A
Non-repetitive forward surge current, half sine-wave	$I_{FSM}$	$T_C = 25^\circ\text{C}$ $t_p = 8.3\text{ ms}$	3500	3500	3500	3500	A

Electrical Characteristics ( $T_J = 25^\circ\text{C}$ unless otherwise specified)							
Parameter	Symbol	Conditions	MBR50045CT (R)	MBR50060CT (R)	MBR50080CT (R)	MBR500100C T(R)	Units
DC forward voltage	$V_F$	$I_F = 250\text{ A}$ $T_J = 25^\circ\text{C}$	0.75	0.85	0.88	0.88	V
DC reverse current	$I_R$	$V_R = 20\text{ V}$ $T_J = 25^\circ\text{C}$	1	1	1	1	mA
		$V_R = 20\text{ V}$ $T_J = 125^\circ\text{C}$	20	20	20	20	

Thermal Characteristics ( $T_J = 25^\circ\text{C}$ unless otherwise specified)							
Parameter	Symbol		MBR50045CT (R)	MBR50060CT (R)	MBR50080CT (R)	MBR500100C T(R)	Units
Thermal resistance junction to case	$R_{thj-c}$		0.25	0.25	0.25	0.25	$^\circ\text{C}/\text{W}$
Operating, storage temperature range	$T_J, T_{stg}$		- 40 to +165	- 40 to +165	- 40 to +165	- 40 to +165	$^\circ\text{C}$

**Package Outline**



ALL DIMENSIONS IN MM

**Ordering Table**

<i>MBR</i>	<i>500</i>	<i>45</i>	<i>CT</i>
1	2	3	4

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