



### Silicon Power Schottky Diode

$V_{RRM} = 20\text{ V} - 100\text{ V}$

$I_F = 120\text{ A}$

#### Features

- High Surge Capability
- Types up to 100 V  $V_{RRM}$

Twin Tower Package



Maximum ratings, at  $T_j = 25\text{ }^\circ\text{C}$ , unless otherwise specified ("R" devices have leads reversed)

Parameter	Symbol	Conditions	MBR12045CT (R)	MBR12060CT (R)	MBR12080CT (R)	MBR120100CT (R)	Unit
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
Continuous forward current	$I_F$	$T_C \leq 140\text{ }^\circ\text{C}$	120	120	120	120	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ }^\circ\text{C}$ , $t_p = 8.3\text{ ms}$	800	800	800	800	A
Operating temperature	$T_j$		-40 to 175	-40 to 175	-40 to 175	-40 to 175	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-40 to 175	-40 to 175	-40 to 175	-40 to 175	$^\circ\text{C}$

Electrical characteristics, at  $T_j = 25\text{ }^\circ\text{C}$ , unless otherwise specified

Parameter	Symbol	Conditions	MBR12045CT (R)	MBR12060CT (R)	MBR12080CT (R)	MBR120100CT (R)	Unit
Diode forward voltage	$V_F$	$I_F = 60\text{ A}$ , $T_j = 25\text{ }^\circ\text{C}$	0.65	0.75	0.84	0.84	V
Reverse current	$I_R$	$V_R = 20\text{ V}$ , $T_j = 25\text{ }^\circ\text{C}$	3	3	3	3	mA
		$V_R = 20\text{ V}$ , $T_j = 125\text{ }^\circ\text{C}$	200	200	200	200	

#### Thermal characteristics

Thermal resistance, junction - case	$R_{\theta JC}$		0.8	0.8	0.8	0.8	$^\circ\text{C/W}$
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Figure 1-Typical Forward Characteristics

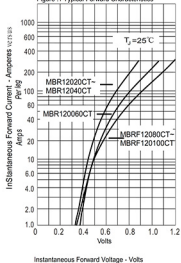
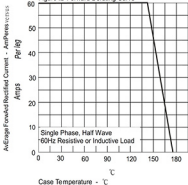


Figure 2-Forward Derating Curve



Instantaneous Forward Voltage - Volts

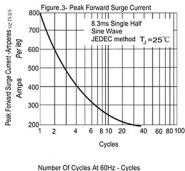


Figure 4-Typical Reverse Characteristics

