

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

Parameter	Symbol	Conditions	MBR12020CT (R)	MBR12030CT (R)	MBR12035CT (R)	MBR12040CT (R)	Unit
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
Continuous forward current	I_F	$T_C \leq 140^\circ\text{C}$	120	120	120	120	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25^\circ\text{C}$, $t_p = 8.3 \text{ ms}$	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 $T_j = 25^\circ\text{C}$, unless otherwise specified

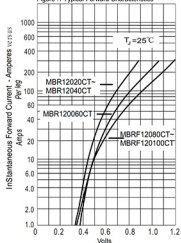
Parameter	Symbol	Conditions	MBR12020CT (R)	MBR12030CT (R)	MBR12035CT (R)	MBR12060CT (R)	Unit
Diode forward voltage	V_F	$I_F = 60 \text{ A}$, $T_j = 25^\circ\text{C}$	0.65	0.65	0.65	0.65	V
Reverse current	I_R	$V_R = 20 \text{ V}$, $T_j = 25^\circ\text{C}$	3	3	3	3	mA
		$V_R = 20 \text{ V}$, $T_j = 125^\circ\text{C}$	200	200	200	200	

Thermal characteristics

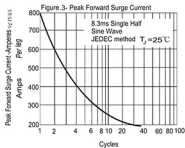
Thermal resistance, junction - case	$R_{\theta JC}$		0.8	0.8	0.8	0.8	$^\circ\text{C/W}$
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Figure 1-Typical Forward Characteristics

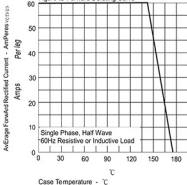


Instantaneous Forward Voltage - Volts



Number Of Cycles At 60Hz - Cycles

Figure 2-Forward Derating Curve



Case Temperature - $^\circ\text{C}$

Figure 4-Typical Reverse Characteristics

