



### Features

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

D-67 Package



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

Parameter	Symbol	Conditions	MBRH12045 (R)	MBRH12060 (R)	MBRH12080 (R)	MBRH120100 (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	$I_F$	$T_C \leq 136\text{ }^\circ\text{C}$	120	120	120	120	A
Surge non-repetitive forward current, Half Sine Wave	$I_{FSM}$	$T_C = 25\text{ }^\circ\text{C}$ , $t_p = 8.3\text{ ms}$	2000	2000	2000	2000	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

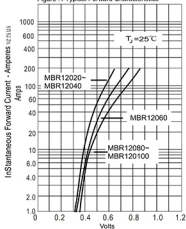
Parameter	Symbol	Conditions	MBRH12045 (R)	MBRH12060 (R)	MBRH12080 (R)	MBRH120100 (R)	Unit
Diode forward voltage	$V_F$	$I_F = 120\text{ A}$ , $T_J = 25\text{ }^\circ\text{C}$	0.65	0.75	0.84	0.84	V
Reverse current	$I_R$	$V_R = 20\text{ V}$ , $T_J = 25\text{ }^\circ\text{C}$	4	4	4	4	mA
		$V_R = 20\text{ V}$ , $T_J = 125\text{ }^\circ\text{C}$	250	250	250	250	

### Thermal characteristics

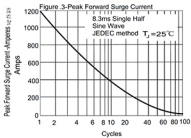
Parameter	Symbol	Conditions	MBRH12045 (R)	MBRH12060 (R)	MBRH12080 (R)	MBRH120100 (R)	Unit
Thermal resistance, junction - case	$R_{\theta JC}$		0.8	0.8	0.8	0.8	$^\circ\text{C/W}$



Figure 1-Typical Forward Characteristics

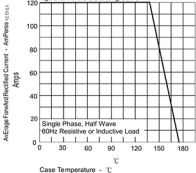


Instantaneous Forward Voltage - Volts



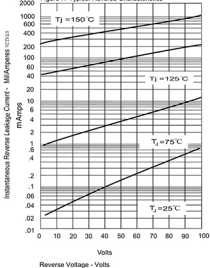
Number Of Cycles At 60Hz - Cycles

Figure 2-Forward Derating Curve



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

Figure 4-Typical Reverse Characteristics



Reverse Voltage - Volts