



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	MBRH24020 (R)	MBRH24030 (R)	MBRH24035 (R)	MBRH24040 (R)	Unit
Repetitive peak reverse voltage	V_{RRM}		20	30	35	40	V
RMS reverse voltage	V_{RRMS}		14	21	25	28	V
DC blocking voltage	V_{DC}		20	30	35	40	V
Continuous forward current	I_F	$T_C \leq 136\text{ }^\circ\text{C}$	240	240	240	240	A
Surge non-repetitive forward current, Half Sine Wave	I_{FSM}	$T_C = 25\text{ }^\circ\text{C}$, $t_p = 8.3\text{ ms}$	3300	3300	3300	3300	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	MBRH24020 (R)	MBRH24030 (R)	MBRH24035 (R)	MBRH24040 (R)	Unit
Diode forward voltage	V_F	$I_F = 240\text{ A}$, $T_J = 25\text{ }^\circ\text{C}$	0.65	0.65	0.65	0.65	V
Reverse current	I_R	$V_R = 20\text{ V}$, $T_J = 25\text{ }^\circ\text{C}$	8	8	8	8	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	$^\circ\text{C/W}$
-------------------------------------	-----------------	--	-----	-----	-----	-----	--------------------



Figure 1-Typical Forward Characteristics

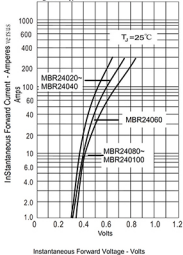
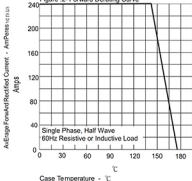


Figure 2-Forward Derating Curve



Instantaneous Forward Voltage - Volts

Figure 3-Peak Forward Surge Current

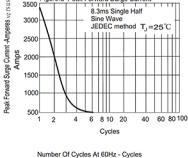


Figure 4-Typical Reverse Characteristics

