



# America Semiconductor

## Silicon Power Schottky Diode

### MBRH24045 thru MBRH240100R

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

$I_F = 240\text{ A}$

#### Features

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

D-67 Package



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

Parameter	Symbol	Conditions	MBRH24045 (R)	MBRH24060 (R)	MBRH24080 (R)	MBRH240100 (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	$I_F$	$T_C \leq 136\text{ }^\circ\text{C}$	240	240	240	240	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ }^\circ\text{C}$ , $t_p = 8.3\text{ ms}$	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	MBRH24045 (R)	MBRH24060 (R)	MBRH24080 (R)	MBRH240100 (R)	Unit
Diode forward voltage	$V_F$	$I_F = 240\text{ A}$ , $T_j = 25\text{ }^\circ\text{C}$	0.65	0.75	0.84	0.84	V
Reverse current	$I_R$	$V_R = 20\text{ V}$ , $T_j = 25\text{ }^\circ\text{C}$	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	$R_{thJC}$		0.8	0.8	0.8	0.8	$^\circ\text{C/W}$
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Figure .1-Typical Forward Characteristics

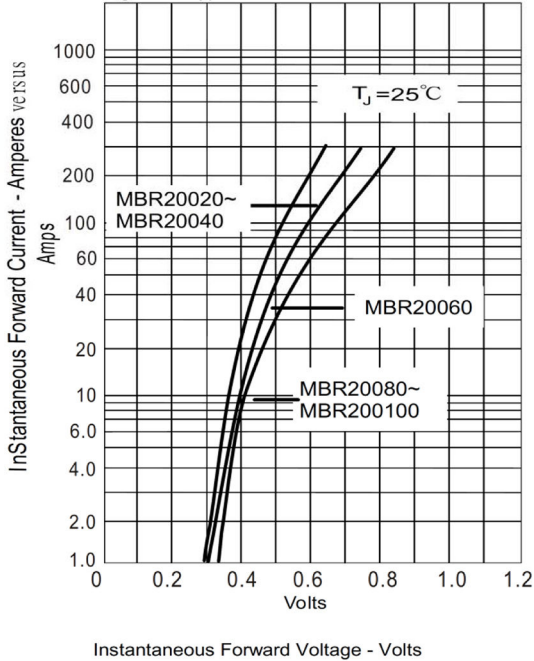


Figure .2- Forward Derating Curve

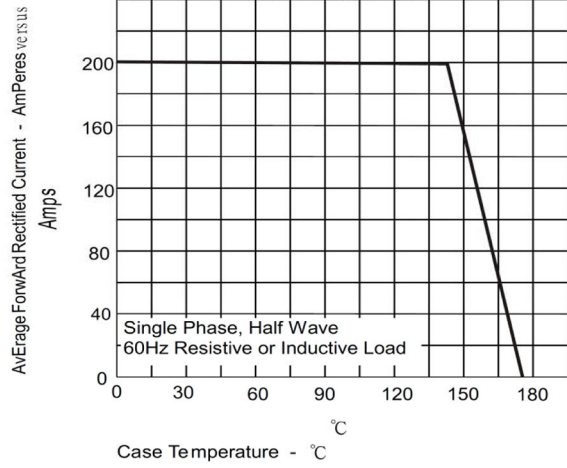


Figure .3-Peak Forward Surge Current

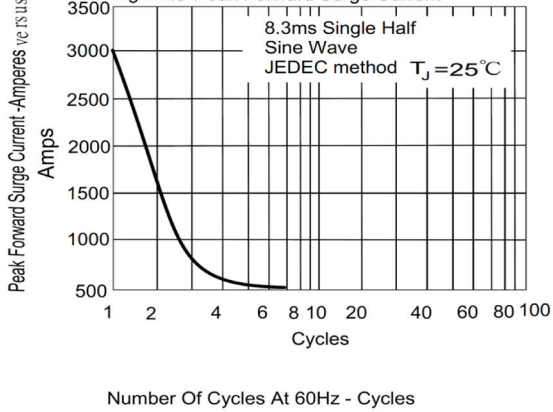


Figure .4-Typical Reverse Characteristics

