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America Semiconductor

"In America Semi We Trust"

MANUFACTURER OF WORLD CLASS HIGH POWER SEMICONDUCTORS

America Semiconductor

MBRH20045 thru MBRH200100R

Silicon Power Schottky Diode

V_{RRM} = 20 V - 100 V
I_F = 200 A

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

D-67 Package

Maximum ratings, at T_j = 25 °C, unless otherwise specified ("R" devices have leads reversed)

Parameter	Symbol	Conditions	MBRH20045 (R)	MBRH20060 (R)	MBRH20080 (R)	MBRH200100 (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	$T_C \leq 136$ °C	200	200	200	200	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	T_C = 25 °C, t_p = 8.3 ms	3000	3000	3000	3000	A
Operating temperature	T_j		-40 to 175	-40 to 175	-40 to 175	-40 to 175	°C
Storage temperature	T_{stg}		-40 to 175	-40 to 175	-40 to 175	-40 to 175	°C

Electrical characteristics, at Tj = 25 °C, unless otherwise specified

Parameter	Symbol	Conditions	MBRH20045 (R)	MBRH20060 (R)	MBRH20080 (R)	MBRH200100 (R)	Unit
Diode forward voltage	V_F	I_F = 200 A, T_j = 25 °C	0.65	0.75	0.84	0.84	V
Reverse current	I_R	V_R = 20 V, T_j = 25 °C	5	5	5	5	mA
		V_R = 20 V, T_j = 125 °C	250	250	250	250	
Thermal characteristics							
Thermal resistance, junction - case	R_{thJC}		0.8	0.8	0.8	0.8	°C/W

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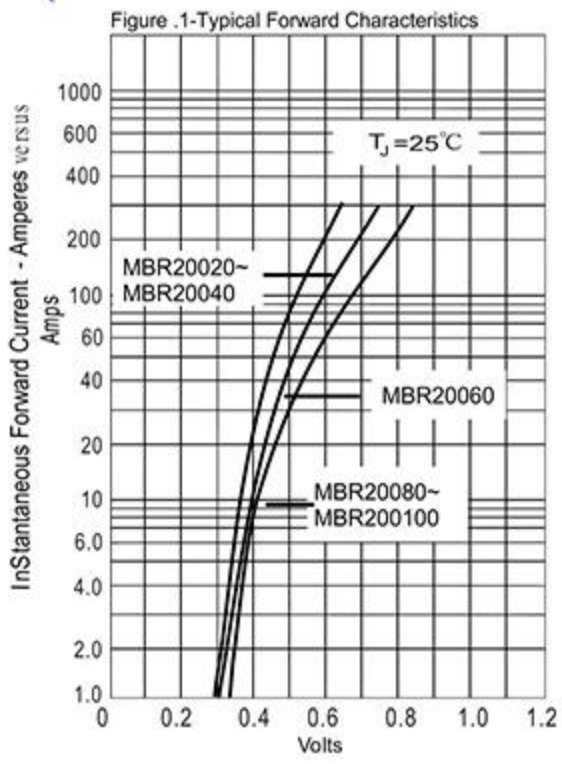
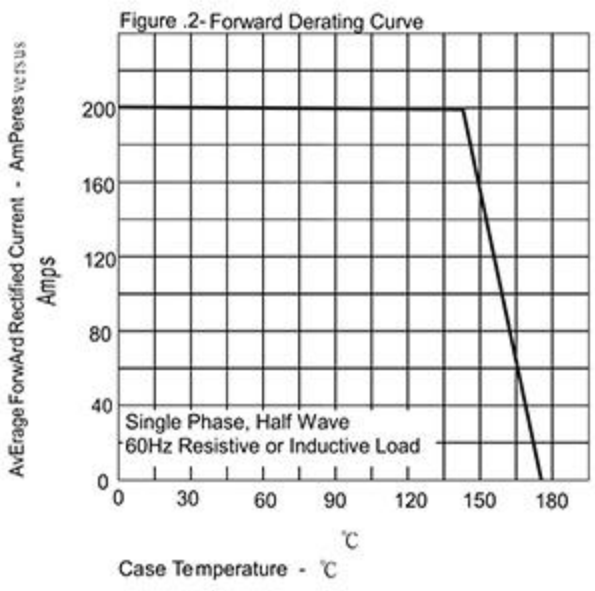
MBRH20045 thru MBRH200100R

Figure .1-Typical Forward Characteristics



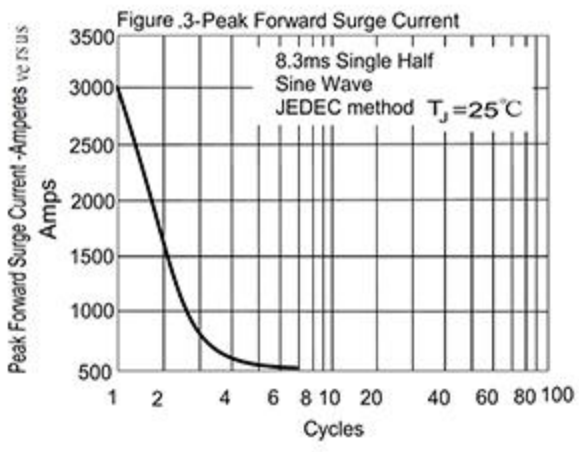
Instantaneous Forward Voltage - Volts

Figure .2- Forward Derating Curve



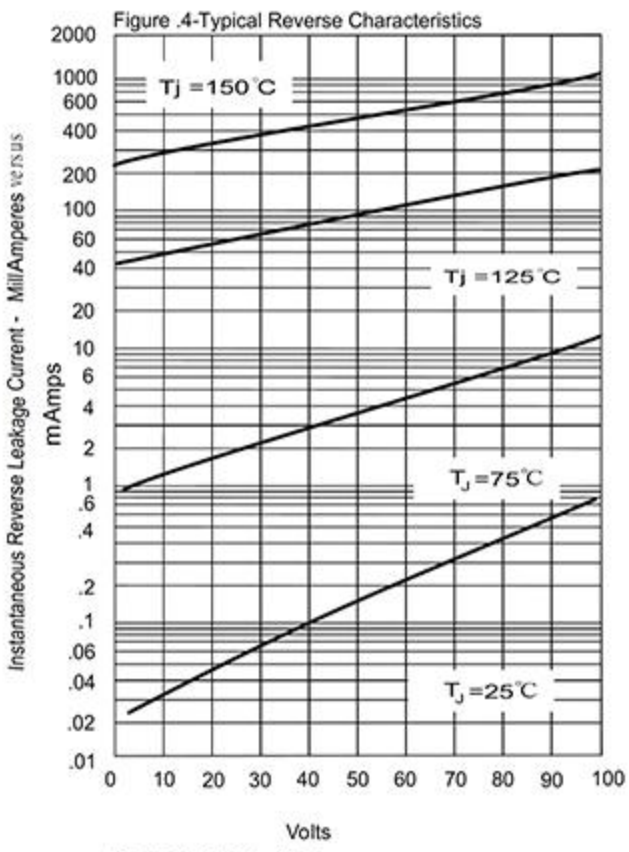
Case Temperature - °C

Figure .3-Peak Forward Surge Current



Number Of Cycles At 60Hz - Cycles

Figure .4-Typical Reverse Characteristics



Reverse Voltage - Volts