

America Semiconductor



"In America Semi We Trust"

MANUFACTURER OF WORLD CLASS HIGH POWER SEMICONDUCTORS

America Semiconductor

Silicon Power Schottky Diode

MBR8020 thru MBR8040R

$V_{RRM} = 20\text{ V} - 100\text{ V}$
 $I_F = 80\text{ A}$

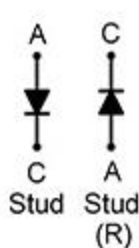
Features

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

DO-5 Package

Note:

1. Standard polarity: Stud is cathode.
2. Reverse polarity (R): Stud is anode.
3. Stud is base.



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

Parameter	Symbol	Conditions	MBR8020 (R)	MBR8030 (R)	MBR8035 (R)	MBR8040 (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	$T_C \leq 120^\circ\text{C}$	80	80	80	80	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25^\circ\text{C}, t_p = 8.3\text{ ms}$	1000	1000	1000	1000	A
Operating temperature	T_J		-65 to 150	-65 to 150	-65 to 150	-65 to 150	$^\circ\text{C}$
Storage temperature	T_{stg}		-65 to 175	-65 to 175	-65 to 175	-65 to 175	$^\circ\text{C}$

Electrical characteristics, at $T_J = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	MBR8020 (R)	MBR8030(R)	MBR8035 (R)	MBR8040 (R)	Unit
Diode forward voltage	V_F	$I_F = 80\text{ A}, T_J = 25^\circ\text{C}$	0.65	0.65	0.65	0.65	V
Reverse current	I_R	$V_R = 20\text{ V}, T_J = 25^\circ\text{C}$	5	5	5	5	mA
		$V_R = 20\text{ V}, T_J = 125^\circ\text{C}$	250	250	250	250	

Thermal characteristics

Thermal resistance, junction - case	$R_{\theta JC}$		1.0	1.0	1.0	1.0	$^\circ\text{C/W}$
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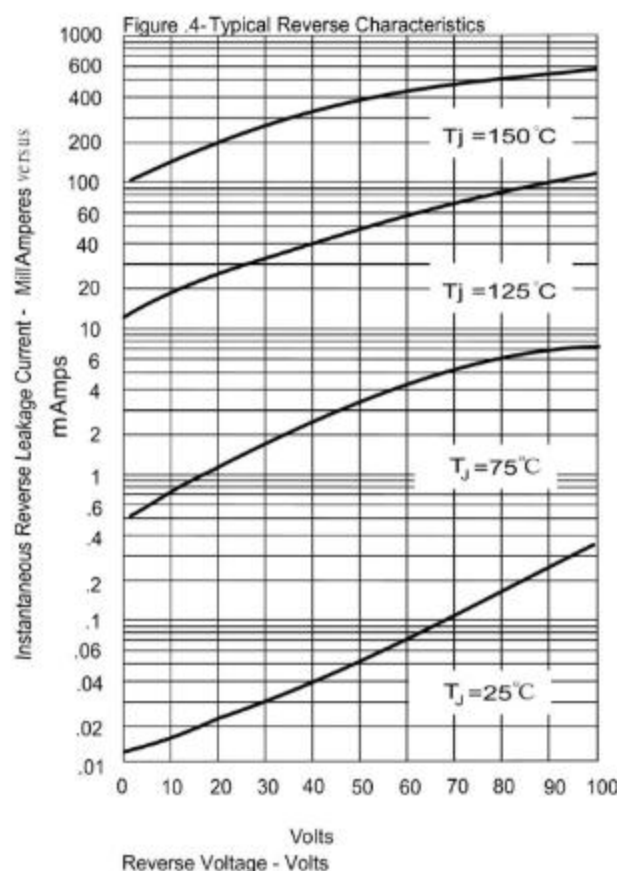
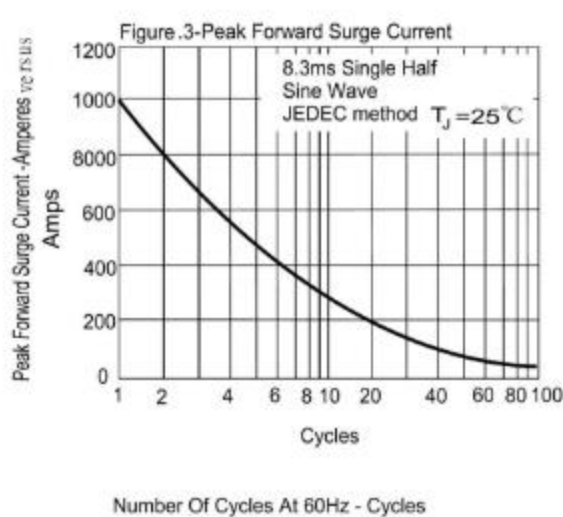
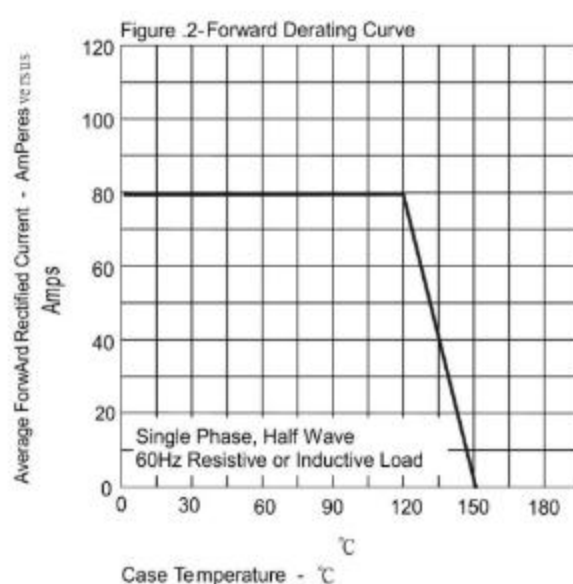
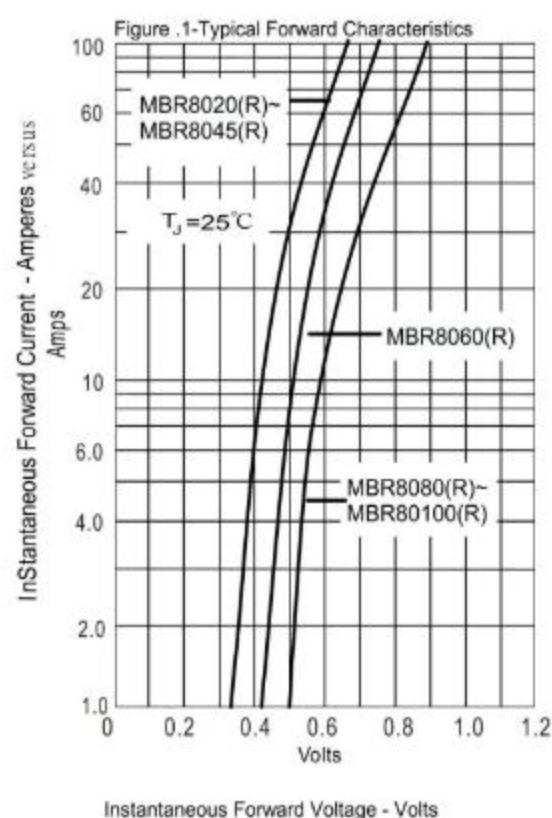


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1

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2

