



America Semiconductor

Silicon Power Schottky Diode

MBR8020 thru MBR8040R

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

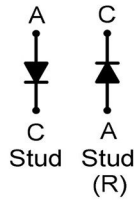
$I_F = 80\text{ A}$

Features

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

Note:

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



DO-5 Package



Maximum ratings, at $T_j = 25\text{ }^\circ\text{C}$, 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	$T_C \leq 120\text{ }^\circ\text{C}$	80	80	80	80	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ }^\circ\text{C}$, $t_p = 8.3\text{ ms}$	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 $T_j = 25\text{ }^\circ\text{C}$, unless otherwise specified

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

Thermal characteristics

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



