

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

Parameter	Symbol	Conditions	MBR8045 (R)	MBR8060 (R)	MBR8080 (R)	MBR80100 (R)	Unit
Repetitive peak reverse voltage	$V_{RRM}$		45	60	80	100	V
RMS reverse voltage	$V_{RMS}$		32	42	50	70	V
DC blocking voltage	$V_{DC}$		45	60	80	100	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	$I_{FSM}$	$T_C = 25\text{ }^\circ\text{C}$ , $t_p = 8.3\text{ ms}$	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	MBR8045 (R)	MBR8060(R)	MBR8080 (R)	MBR80100 (R)	Unit
Diode forward voltage	$V_F$	$I_F = 80\text{ A}$ , $T_J = 25\text{ }^\circ\text{C}$	0.65	0.75	0.84	0.84	V
Reverse current	$I_R$	$V_R = 20\text{ V}$ , $T_J = 25\text{ }^\circ\text{C}$	5	5	5	5	mA
		$V_R = 20\text{ V}$ , $T_J = 125\text{ }^\circ\text{C}$	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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