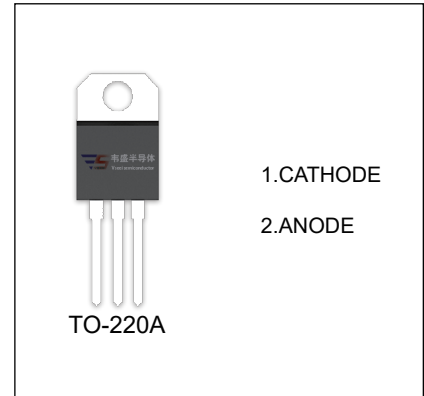


## MBR1030,35,40,45,50

### SCHOTTKY BARRIER RECTIFIER

#### FEATURES

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- Low Power Loss,High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- For Use in Low Voltage, High Frequency Inverters,Free Wheeling, and Polarity Protection Applications



#### MAXIMUM RATINGS ( $T_a=25^{\circ}\text{C}$ unless otherwise noted )

Symbol	Parameter	Value					Unit
		MBR1030	MBR1035	MBR1040	MBR1045	MBR1050	
$V_{RRM}$	Peak repetitive reverse voltage	30	35	40	45	50	V
$V_{RWM}$	Working peak reverse voltage						
$V_R$	DC blocking voltage						
$V_{R(RMS)}$	RMS reverse voltage	21	24.5	28	31.5	35	V
$I_O$	Average rectified output current	10					A
$I_{FSM}$	Non-Repetitive peak forward surge current 8.3ms half sine wave	150					A
$P_D$	Power dissipation	2					W
$R_{\theta JA}$	Thermal resistance from junction to ambient	50					$^{\circ}\text{C/W}$
$T_J$	Operating Junction Temperature Range	$-40 \sim +125$					$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature Range	$-55 \sim +150$					$^{\circ}\text{C}$

Parameter	Symbol	Device	Test conditions	Min	Typ	Max	Unit
<b>Reverse voltage</b>	$V_{(BR)}$	MBR1030	$I_R=1mA$	30			V
		MBR1035		35			
		MBR1040		40			
		MBR1045		45			
		MBR1050		50			
<b>Reverse current</b>	$I_R$	MBR1030	$V_R=30V$			0.1	mA
		MBR1035	$V_R=35V$				
		MBR1040	$V_R=40V$				
		MBR1045	$V_R=45V$				
		MBR1050	$V_R=50V$				
<b>Forward voltage</b>	$V_F$	MBR1030-45	$I_F=10A$			0.84	V
		MBR1050				0.95	
<b>Typical junction capacitance</b>	$C_j$	MBR1030-50	$V_R=4V, f=1MHz$		400		pF