MBR1030,35,40,45,50

SCHOTTKY BARRIER RECTIFIER

TO-220A

1.CATHODE

2.ANODE

FEATURES

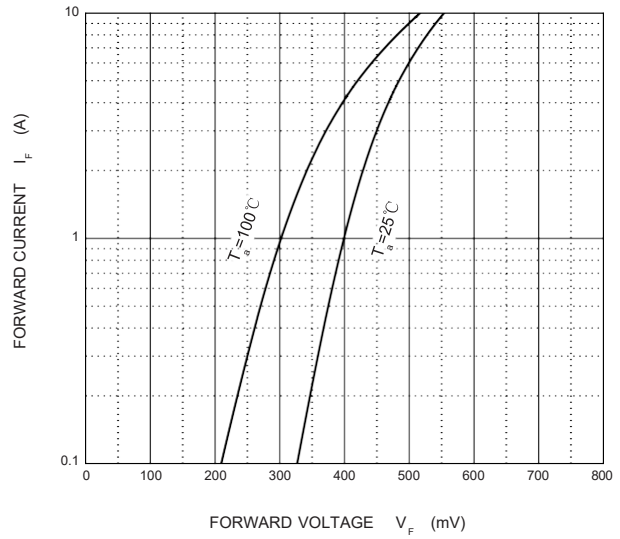
- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- Low Power Loss,High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- For Use in Low Voltage, High Frequency Inverters,Free Wheeling, and Polarity Protection Applications

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

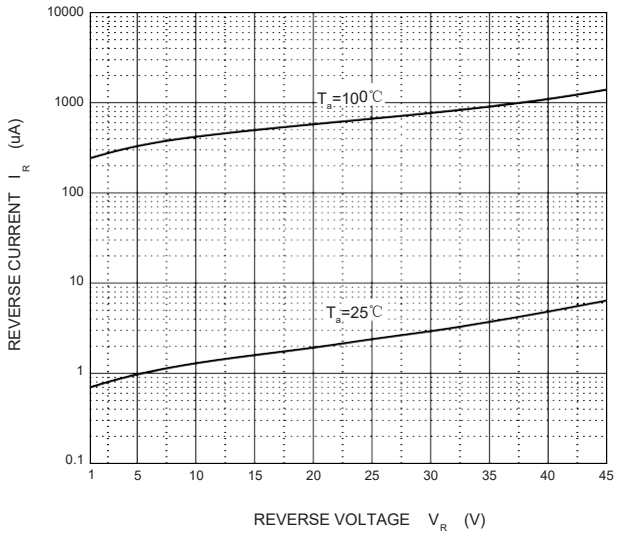
Symbol	Parameter	Value					Unit
		MBR1030	MBR1035	MBR1040	MBR1045	MBR1050	
V_{RRM}	Peak repetitive reverse voltage	30	35	40	45	50	V
V_{RWM}	Working peak reverse voltage						
V_R	DC blocking voltage						
$V_{R(RMS)}$	RMS reverse voltage	21	24.5	28	31.5	35	V
I_O	Average rectified output current	10					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					℃/W
T_j	Operating Junction Temperature Range	-40 ~ +125					℃
T_{stg}	Storage Temperature Range	-55 ~ +150					℃

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

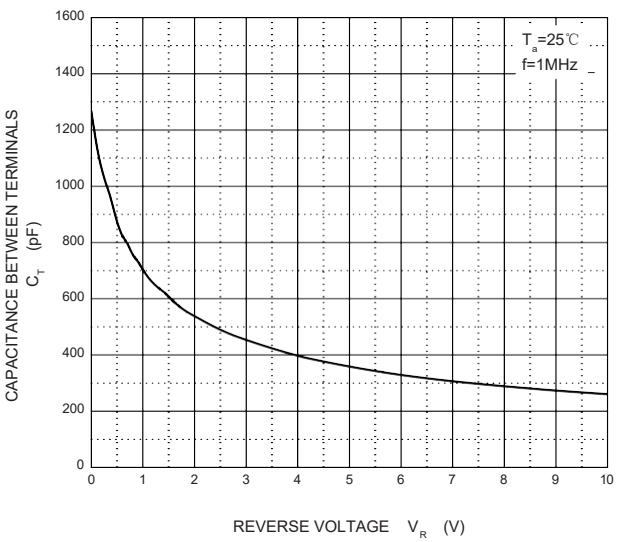
Forward Characteristics



Reverse Characteristics



Capacitance Characteristics



Power Derating Curve