



MBR1070CT, 80CT, 90CT, 100CT

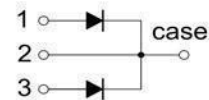
SCHOTTKY BARRIER RECTIFIER

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

TO-220

1. ANODE
2. CATHODE
3. ANODE



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

Symbol	Parameter	Value				Unit
		MBR 1070CT	MBR 1080CT	MBR 1090CT	MBR 10100CT	
V_{RRM}	Peak repetitive reverse voltage	70	80	90	100	V
V_{RWM}	Working peak reverse voltage					
V_R	DC blocking voltage					
$V_{R(RMS)}$	RMS reverse voltage	49	56	63	70	V
I_O	Average rectified output current@ $T_c=100^\circ\text{C}$	10				A
I_{FSM}	Non-Repetitive peak forward surge current 8.3ms half sine wave	120				A
P_D	Power dissipation	2				W
$R_{\theta JA}$	Thermal resistance from junction to ambient	50				$^\circ\text{C}/\text{W}$
T_j	Junction temperature	125				$^\circ\text{C}$
T_{stg}	Storage temperature	-55~+150				$^\circ\text{C}$

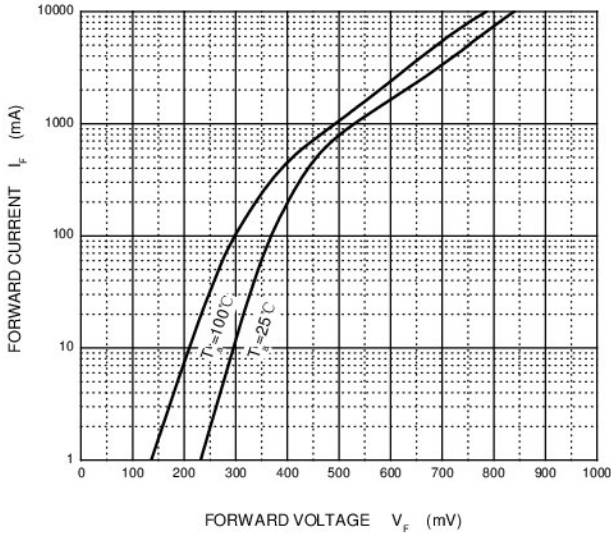
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Device	Test conditions	Min	Typ	Max	Unit
Reverse voltage	V _(BR)	MBR1070CT	I _R =0.1mA	70			V
		MBR1080CT		80			
		MBR1090CT		90			
		MBR10100CT		100			
Reverse current	I _R	MBR1070CT	V _R =70V			0.1	mA
		MBR1080CT	V _R =80V				
		MBR1090CT	V _R =90V				
		MBR10100CT	V _R =100V				
Forward voltage	V _{F(1)}	MBR1070CT-10100CT	I _F =5A		0.8	0.85	V
	V _{F(2)} *	MBR1070CT-10100CT	I _F =10A			0.95	
Typical total capacitance	C _{tot}	MBR1070CT-10100CT	V _R =4V,f=1MHz		150		pF

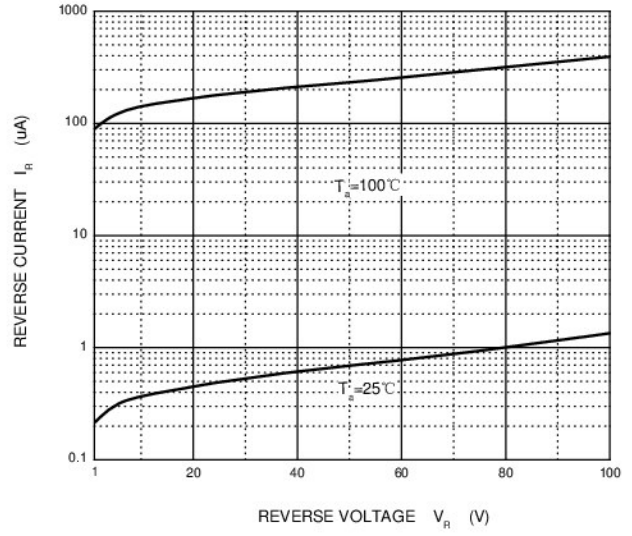
*Pulse test

Typical Characteristics

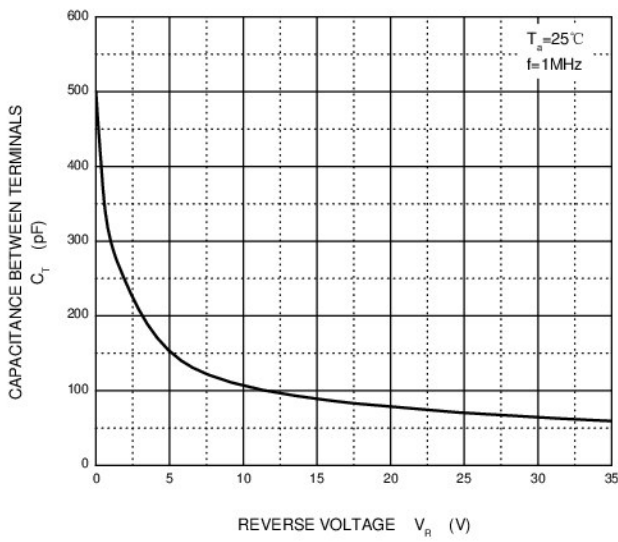
Forward Characteristics



Reverse Characteristics



Capacitance Characteristics



Power Derating Curve

