

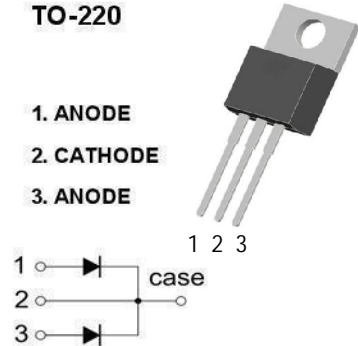


## MBR20100CT SCHOTTKY BARRIER RECTIFIER

### 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



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

Symbol	Parameter	Value	Unit
$V_{RRM}$	Peak repetitive reverse voltage	100	V
$V_{RWM}$	Working peak reverse voltage		
$V_R$	DC blocking voltage		
$V_{R(RMS)}$	RMS reverse voltage	70	V
$I_O$	Average rectified output current@ $T_c=125^{\circ}\text{C}$	20	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	$^{\circ}\text{C/W}$
$T_j$	Junction temperature	150	$^{\circ}\text{C}$
$T_{stg}$	Storage temperature	-55~+150	$^{\circ}\text{C}$

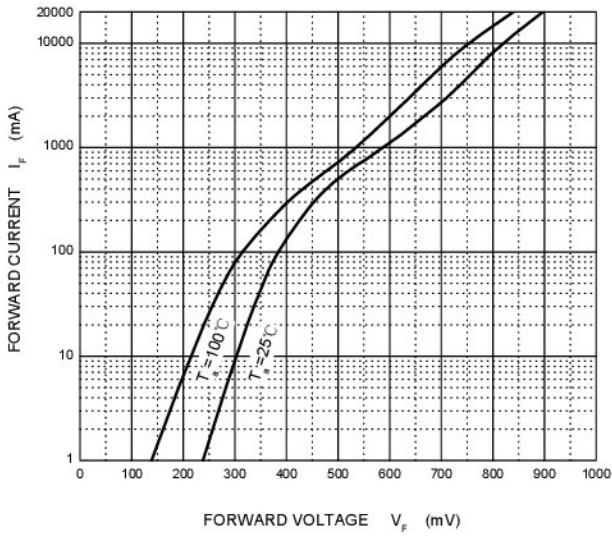
### ELECTRICAL CHARACTERISTICS ( $T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=1\text{mA}$	100			V
Reverse current	$I_R$	$V_R=100\text{V}$			0.1	mA
Forward voltage	$V_{F1}$	$I_{F1}=10\text{A}$		0.83	1	V
Forward voltage	$V_{F2^*}$	$I_{F2}=20\text{A}$			1.2	V

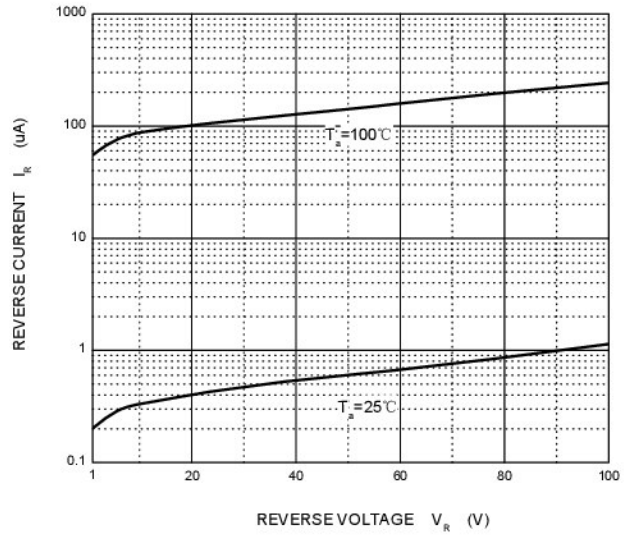
\*Pulse test

# Typical Characteristics

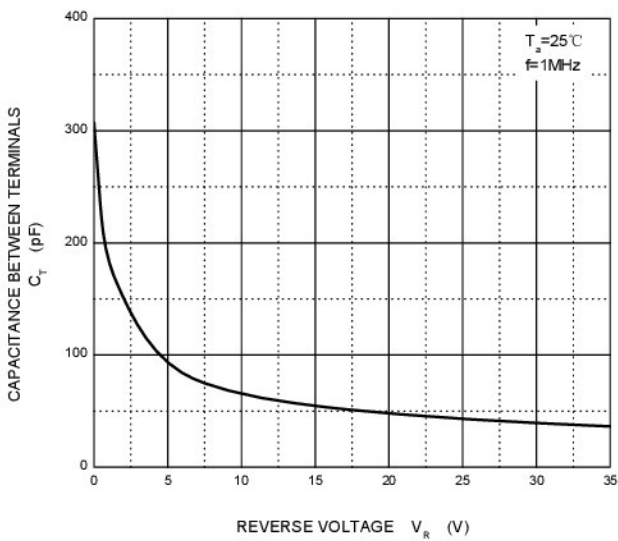
Forward Characteristics



Reverse Characteristics



Capacitance Characteristics



$I_O$  vs  $T_C$

