

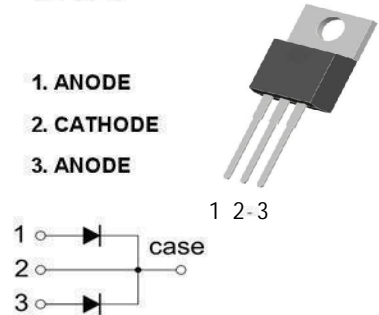


MBR30100CT SCHOTTKY BARRIER RECTIFIER

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)

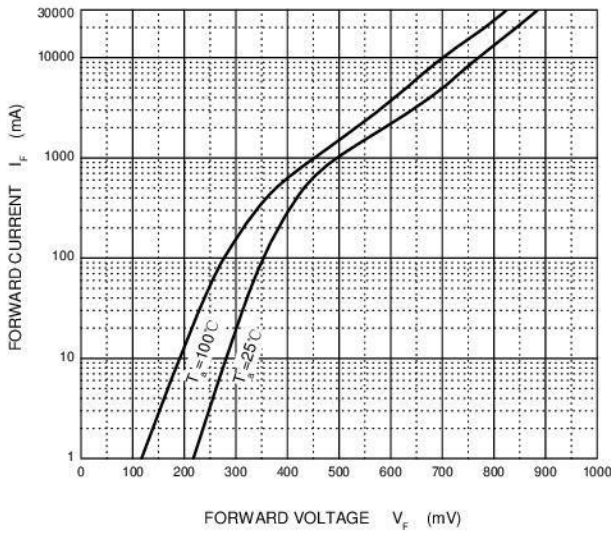
Symbol	Parameter	Value	Unit
V_{RRM}	Peak repetitive reverse voltage	100	V
V_{RWM}	Working peak reverse voltage		
V_R	DC blocking voltage		
$V_{R(RMS)}$	RMS reverse voltage	70	V
I_O	Average rectified output current	30	A
I_{FSM}	Non-Repetitive peak forward surge current 8.3ms half sine wave	250	A
P_D	Power 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)

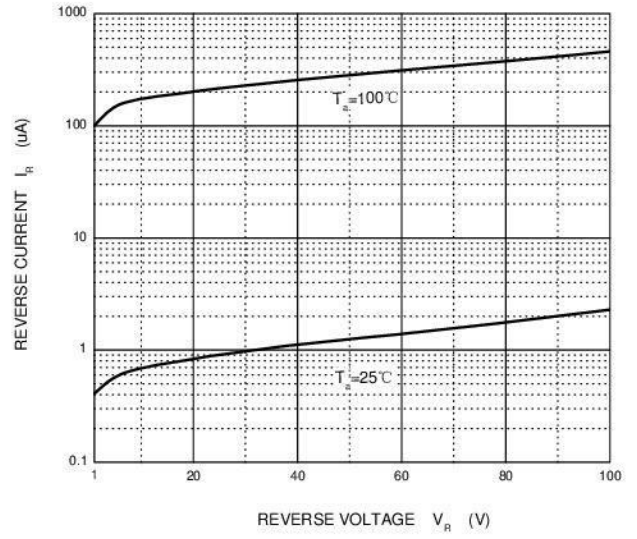
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=1\text{mA}$	100			V
Reverse current	I_R	$V_R=100\text{V}$			100	μA
Forward voltage	V_{F1}	$I_F=15\text{A}$		0.83	1	V
Forward voltage	V_{F2^*}	$I_F=30\text{A}$			1.05	V
Typical total capacitance	C_{tot}	$V_R=4\text{V}, f=1\text{MHz}$		300		pF

Typical Characteristics

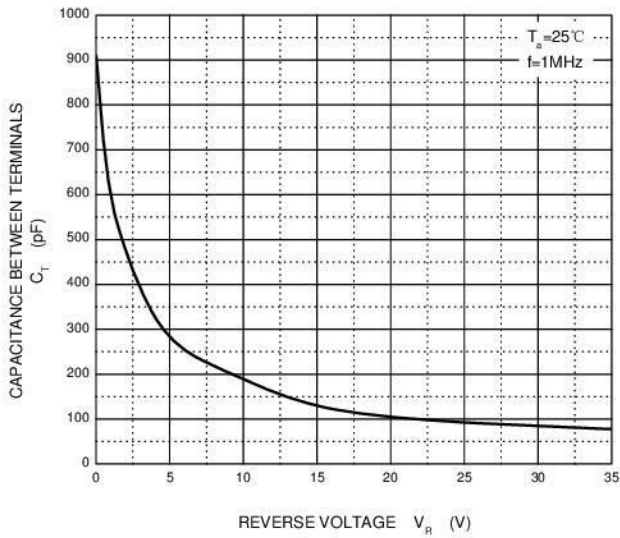
Forward Characteristics



Reverse Characteristics



Capacitance Characteristics



$I_{F_{AV}}$ vs T_C

