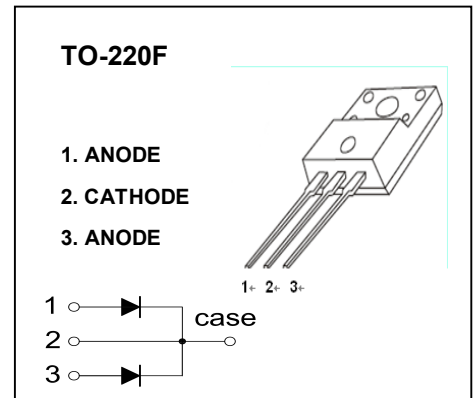


MBRF20100CT, 150CT, 200CT

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
		MBRF20100CT	MBRF20150CT	MBRF20200CT	
V_{RRM}	Peak repetitive reverse voltage	100	150	200	V
V_{RWM}	Working peak reverse voltage				
V_R	DC blocking voltage				
$V_{R(RMS)}$	RMS reverse voltage	70	105	140	V
I_O	Average rectified output current	20			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			$^\circ\text{C}/\text{W}$
T_J	Junction temperature	125			$^\circ\text{C}$
T_{stg}	Storage temperature	-55~+150			$^\circ\text{C}$

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

Parameter	Symbol	Device	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	MBRF20100CT	$I_R=1\text{mA}$	100			V
		MBRF20150CT		150			
		MBRF20200CT		200			
Reverse current	I_R	MBRF20100CT	$V_R=100\text{V}$			0.15	mA
		MBRF20150CT	$V_R=150\text{V}$			0.1	
		MBRF20200CT	$V_R=200\text{V}$			0.1	
Forward voltage	V_F	MBRF20100CT	$I_F=10\text{A}$			0.85	V
		MBRF20150CT				0.9	
		MBRF20200CT				0.9	
Typical total capacitance	C_{tot}	MBRF20100CT- 20200CT	$V_R=5\text{V},f=1\text{MHz}$		1000		pF

Typical Characteristics

MBRF20100CT

