

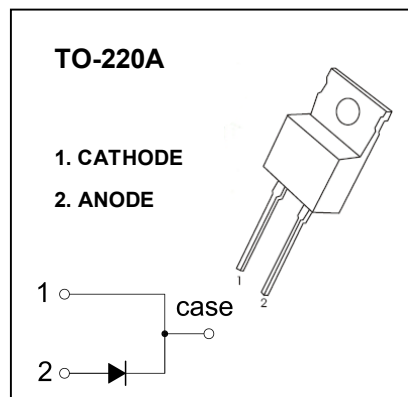
TO-220A Plastic-Encapsulate Diodes

MBR10150,200

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
		MBR10150	MBR10200	
V_{RRM}	Peak repetitive reverse voltage	150	200	V
V_{RWM}	Working peak reverse voltage			
V_R	DC blocking voltage			
$V_{R(RMS)}$	RMS reverse voltage	105	140	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		$^\circ\text{C/W}$
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	$V_{(BR)}$	MBR10150	$I_R=0.1\text{mA}$	150			V
		MBR10200		200			
Reverse current	I_R	MBR10150	$V_R=150\text{V}$			9	μA
		MBR10200	$V_R=200\text{V}$				
Forward voltage	V_F	MBR10150	$I_F=10\text{A}$			1	V
		MBR10200				1.05	
Typical junction capacitance	C_j	MBR10150	$V_R=4\text{V}, f=1\text{MHz}$		500		pF
		MBR10200			200		