



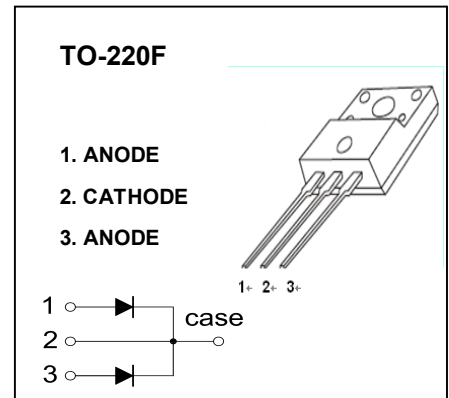
## TO-220F Plastic-Encapsulate Diodes

### MBRF1060, 70, 80, 90, 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



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

Symbol	Parameter	Value					Unit
		MBRF10 60CT	MBRF10 70CT	MBRF10 80CT	MBRF10 90CT	MBRF10 100CT	
$V_{RRM}$	Peak repetitive reverse voltage	60	70	80	90	100	V
$V_{RWM}$	Working peak reverse voltage						
$V_R$	DC blocking voltage						
$V_{R(RMS)}$	RMS reverse voltage	42	49	56	63	70	V
$I_o$	Average rectified output current	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					$^{\circ}\text{C/W}$
$T_j$	Junction temperature	125					$^{\circ}\text{C}$
$T_{stg}$	Storage temperature	-55~+150					$^{\circ}\text{C}$

**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)**

Parameter	Symbol	Device	Test conditions	Min	Typ	Max	Unit
<b>Reverse voltage</b>	V <sub>(BR)</sub>	MBRF1060CT	I <sub>R</sub> =0.1mA	60			V
		MBRF1070CT		70			
		MBRF1080CT		80			
		MBRF1090CT		90			
		MBRF10100CT		100			
<b>Reverse current</b>	I <sub>R</sub>	MBRF1060CT	V <sub>R</sub> =60V			0.1	mA
		MBRF1070CT	V <sub>R</sub> =70V				
		MBRF1080CT	V <sub>R</sub> =80V				
		MBRF1090CT	V <sub>R</sub> =90V				
		MBRF10100CT	V <sub>R</sub> =100V				
<b>Forward voltage</b>	V <sub>F(1)</sub>	MBRF1060CT	I <sub>F</sub> =5A			0.8	V
		MBRF1070-100CT				0.85	
	V <sub>F(2)</sub>	MBRF1060-100CT	I <sub>F</sub> =10A			0.95	
<b>Typical total capacitance</b>	C <sub>tot</sub>	MBRF1060CT	V <sub>R</sub> =4V,f=1MHz		150		pF
		MBRF1070-100CT			300		