



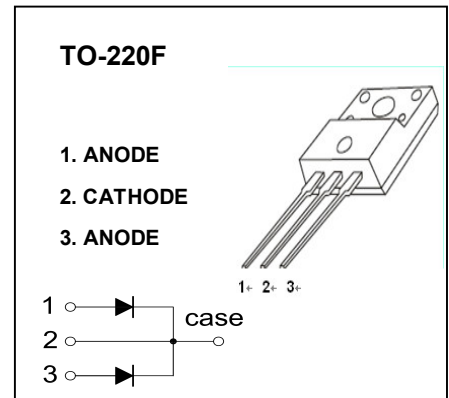
TO-220F Plastic-Encapsulate Diodes

MBR1060, 70, 80, 90, 100FCT

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
		MBR10 60FCT	MBR10 70FCT	MBR10 80FCT	MBR10 90FCT	MBR10 100FCT	
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_a=25°C unless otherwise specified)

Parameter	Symbol	Device	Test conditions	Min	Typ	Max	Unit
Reverse voltage	V _(BR)	MBR1060FCT	I _R =0.1mA	60			V
		MBR1070FCT		70			
		MBR1080FCT		80			
		MBR1090FCT		90			
		MBR10100FCT		100			
Reverse current	I _R	MBR1060FCT	V _R =60V			0.1	mA
		MBR1070FCT	V _R =70V				
		MBR1080FCT	V _R =80V				
		MBR1090FCT	V _R =90V				
		MBR10100FCT	V _R =100V				
Forward voltage	V _{F(1)}	MBR1060FCT	I _F =5A			0.8	V
		MBR1070-100FCT				0.85	
	V _{F(2)}	MBR1060-100FCT	I _F =10A			0.95	
Typical total capacitance	C _{tot}	MBR1060FCT	V _R =4V,f=1MHz		150		pF
		MBR1070-100FCT			300		