

Schottky Barrier Rectifiers

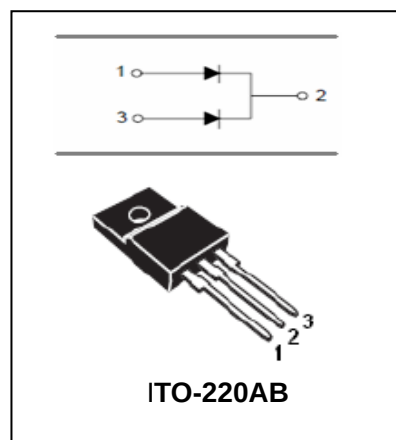
MBRF2030CT---MBRF20100CT

FEATURES

- High surge capacity.
- For use in low voltage,high frequency
Inverters,free wheeling,and polarity protect-
tion applications.
- Metal silicon junction,majority carrier conduction.
- High current capacity,lowforward voltage drop.
- Guard ring for over voltage protection.



Lead-free



MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	MBRF 2030 CT	MBRF 2035 CT	MBRF 2040 CT	MBRF 2045 CT	MBRF 2050 CT	MBRF 2060 CT	MBRF 2080 CT	MBRF 20100 CT	Unit
V_{RRM}	Recurrent Peak Reverse Voltage	30	35	40	45	50	60	80	100	V
V_{RMS}	RMS Voltage	21	25	28	32	35	42	56	70	V
V_{DC}	DC Blocking Voltage	30	35	40	45	50	60	80	100	V
$I_{F(AV)}$	Average Forward Total Device Rectified Current @ $T_A = 100^\circ\text{C}$	20								A
I_{FSM}	Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on rated load	150								A
$R_{\theta JC}$	Thermal Resistance (Note1)	2								$^\circ\text{C}/\text{W}$
T_j T_{stg}	Operating Junction and Storage Temperature Range	-55 to +150								$^\circ\text{C}$

Note:1.Thermal resistance from junction to case.



Schottky Barrier Rectifiers MBRF2030CT---MBRF20100CT

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

Parameter	Symbol	Test conditions	MBRF2030CT- MBRF2045CT	MBRF2050CT- MBRF2060CT	MBRF2080CT- MBRF20100CT	UNIT
			MAX			
Reverse Current	I _R	V _R =V _{RRM} , T _A =25°C V _R =V _{RRM} , T _A =125°C	0.1 15	0.1 25	0.1 50	mA
Forward Voltage	V _F (Note1)	I _F =10A ,T _A =25°C I _F =10A ,T _A =125°C	0.70 0.57	0.80 0.70	0.85 0.70	V

Note:1.Pulse test:300 μs pulse width,1% duty cycle.

TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

FIG.1 – PEAK FORWARD SURGE CURRENT

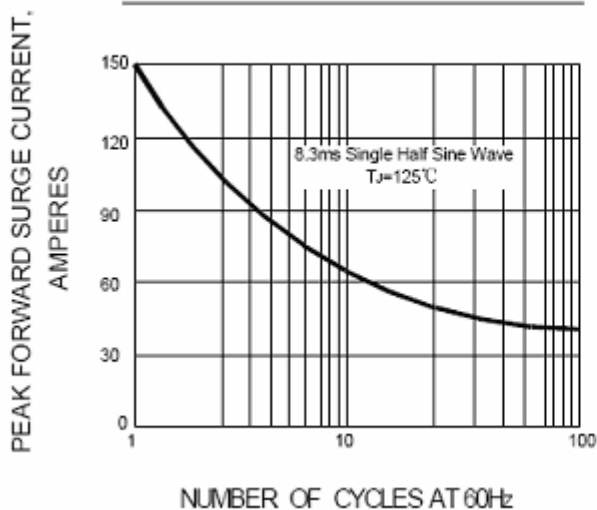


FIG.2 – FORWARD DERATING CURVE

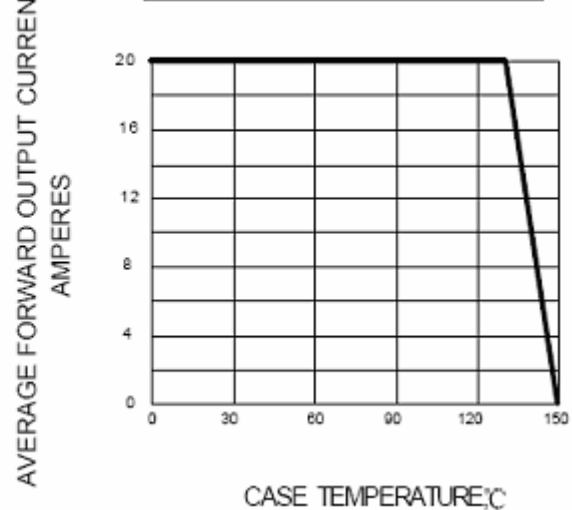


FIG.3 – TYPICAL FORWARD CHARACTERISTIC

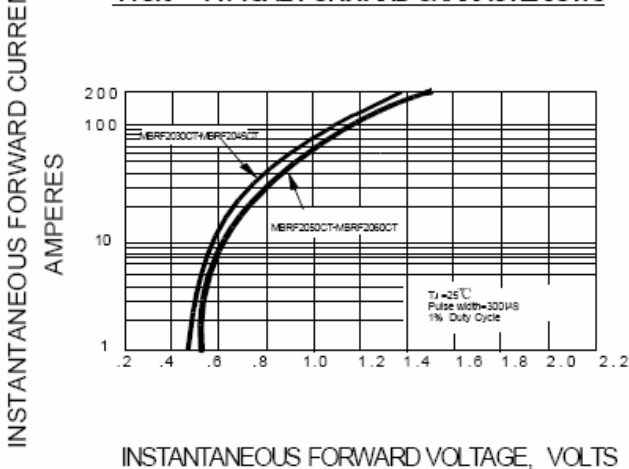
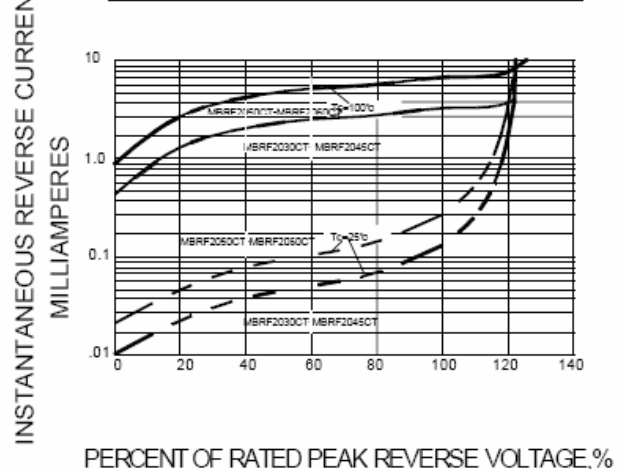


FIG.4 – TYPICAL REVERSE CHARACTERISTIC





Schottky Barrier Rectifiers

MBRF2030CT---MBRF20100CT

PACKAGE OUTLINE

Plastic surface mounted package

ITO-220AB

