

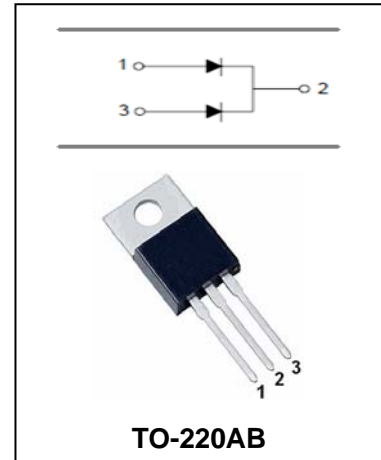
Schottky Barrier Rectifier MBR1530CT...MBR15100CT

FEATURES

- High Surge Capacity.
- For Use In Low Voltage,High Frequency Inverters, Free Wheeling and Polarity Protection Applications.
- Metal Silicon Junction, Majority Carrier Conduction.
- High Current Capacity, Low Forward Voltage Drop.
- Guard Ring for Over Voltage Protection.



Lead-free



MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	MBR 1530 CT	MBR 1535 CT	MBR 1540 CT	MBR 1545 CT	MBR 1550 CT	MBR 1560 CT	MBR 1580 CT	MBR 15100 CT	Unit
V_{RRM}	Repetitive 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 Rectified Current @ $T_A=100^\circ\text{C}$	15								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)	3.0								$^\circ\text{C}/\text{W}$
$T_j T_{stg}$	Operating Junction and Storage Temperature Range	-55 to +150								$^\circ\text{C}$

Note:1. Thermal resistance from junction to case.

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MBR1530CT -MBR1545CT	MBR1550CT -MBR1560CT	MBR1580CT -MBR15100CT	UNIT
			MAX			
Reverse Current	I_R	$V_{RM}=V_{RRM}, T_A=25^\circ C$ $V_{RM}=V_{RRM}, T_A=125^\circ C$	0.1 15	0.1 25	0.1 50	mA
Forward Voltage	V_F (Note1)	$I_F=7.5A, T_A=25^\circ C$ $I_F=7.5A, T_A=125^\circ C$	0.70 0.57	0.80 0.65	0.85 -	V

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

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

FIG.1 – PEAK FORWARD SURGE CURRENT

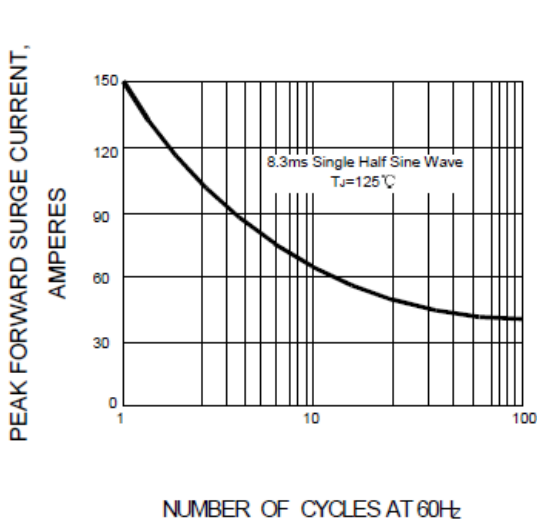


FIG.2 – FORWARD DERATING CURVE

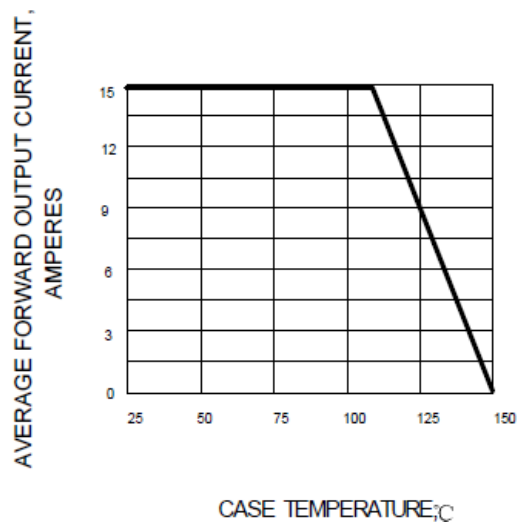


FIG.3 – TYPICAL FORWARD CHARACTERISTIC

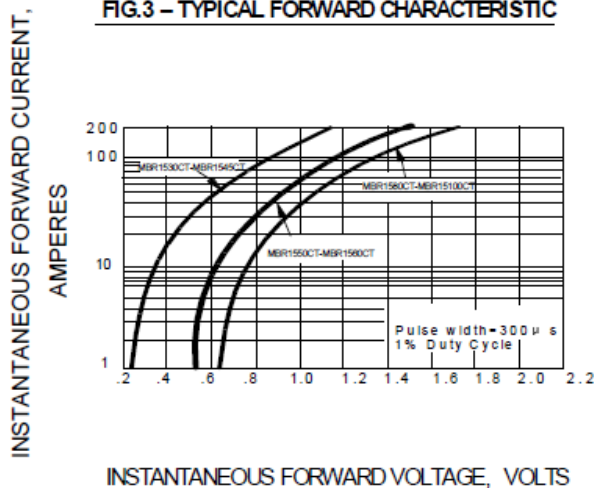
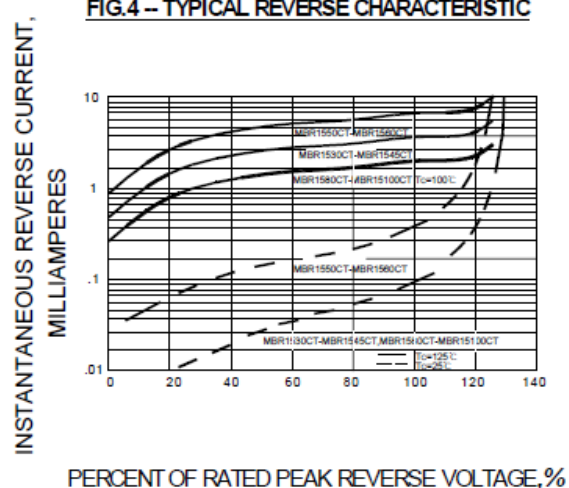


FIG.4 – TYPICAL REVERSE CHARACTERISTIC



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PACKAGE OUTLINE

Plastic surface mounted package

TO-220AB

