

MBRF840CT-MBRF8200CT

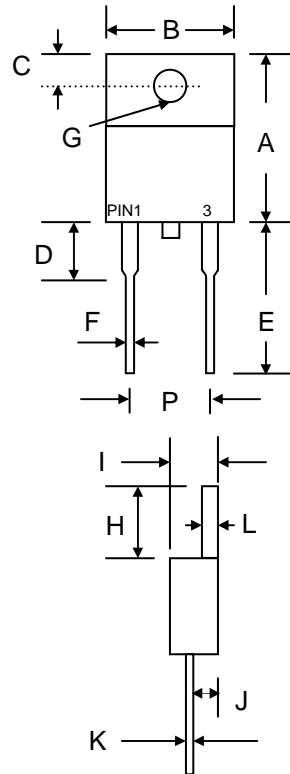
8.0 A SCHOTTKY BARRIER DIODE

Features

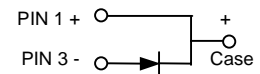
- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O

Mechanical Data

- Case: TO-220F, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Mounting Position: Any
- **Lead Free: For RoHS / Lead Free Version**



TO-220F		
Dim	Min	Max
A	14.50	15.50
B	9.50	10.50
C	2.55	2.90
D	3.30	4.30
E	13.00	14.00
F	0.30	0.90
G	3.00 Ø	3.80 Ø
H	6.30	7.30
I	4.20	4.80
J	2.50	2.90
K	0.47	0.75
L	2.50	3.10
P	4.88	5.28



Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	MBRF 840CT	MBRF 845CT	MBRF 850CT	MBRF 860CT	MBRF 880CT	MBRF 8100CT	MBRF 8150CT	MBRF 8200CT	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	40	45	50	60	80	100	150	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	31	35	42	56	70	105	140	V
Average Rectified Output Current @ $T_L = 100^\circ\text{C}$ (Note 1)	I_o	8.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100				120				A
Forward Voltage @ $I_F = 8\text{A}$	V_{FM}	0.70	0.80		0.85		0.92		V	
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	I_{RM}	0.1 20								mA
Typical Junction Capacitance (Note 2)	C_j	350	280		200				pF	
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	3.5				2.0				$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150							-55 to +175	$^\circ\text{C}$

Note: 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

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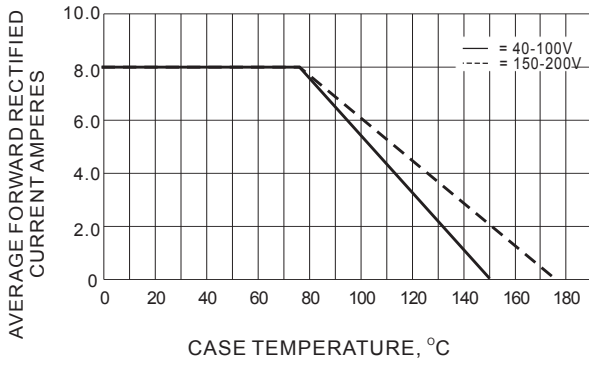


Fig.1- FORWARD CURRENT DERATING CURVE

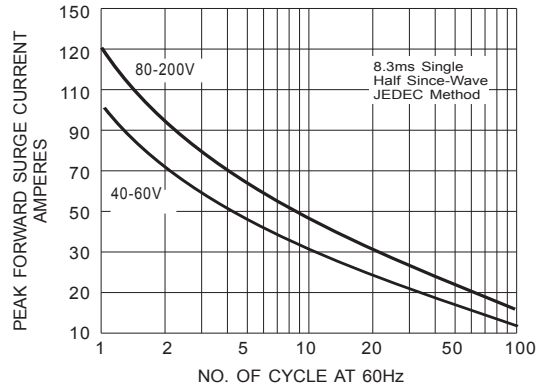


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

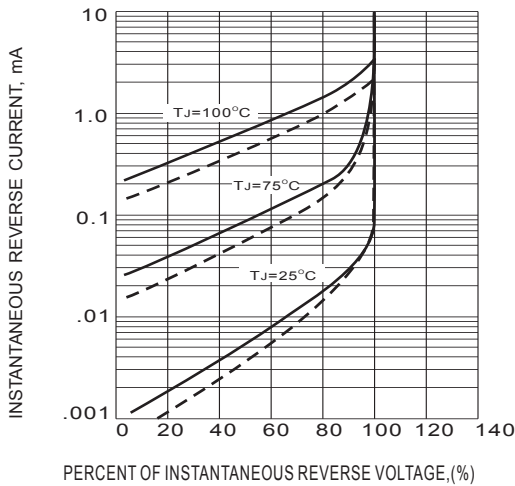


Fig.3- TYPICAL REVERSE CHARACTERISTICS

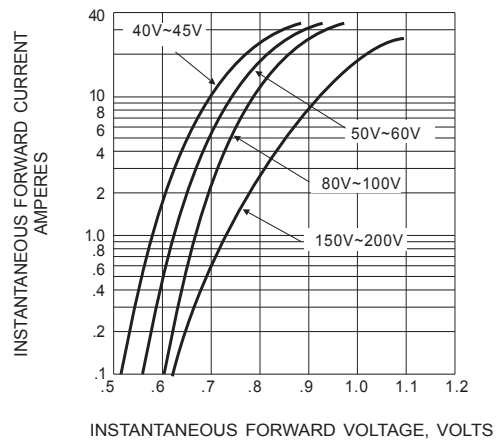


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS