



MBRF830CT THRU MBRF8100CT

Isolation 8.0 AMPS. Schottky Barrier Rectifiers



Voltage Range
30 to 100 Volts
Current
8.0 Amperes

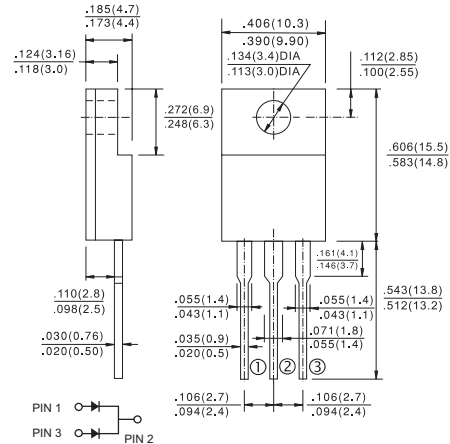
Features

- ✦ Plastic material used carries Underwriters Laboratory Classifications 94V-0
- ✦ Metal silicon junction, majority carrier conduction
- ✦ Low power loss, high efficiency
- ✦ High current capability, low forward voltage drop
- ✦ High surge capability
- ✦ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- ✦ Guardring for overvoltage protection
- ✦ High temperature soldering guaranteed:
260°C/10 seconds, 0.25"(6.35mm) from case

Mechanical Data

- ✦ Cases: ITO-220AB molded plastic
- ✦ Terminals: Leads solderable per MIL-STD-750, Method 2026
- ✦ Polarity: As marked
- ✦ Mounting position: Any
- ✦ Mounting torque: 5 in. - lbs. max
- ✦ Weight: 0.08 ounce, 2.24 grams

ITO-220AB



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	MBRF 830CT	MBRF 835CT	MBR 840CT	MBRF 845CT	MBRF 850CT	MBRF 860CT	MBRF 8100CT	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	30	35	40	45	50	60	100	V
Maximum RMS Voltage	V_{RMS}	21	24	28	31	35	42	70	V
Maximum DC Blocking Voltage	V_{DC}	30	35	40	45	50	60	100	V
Maximum Average Forward Rectified Current See Fig. 1 Per Leg	$I_{(AV)}$	8 4							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150							A
Maximum Instantaneous Forward Voltage at (Note 1) $I_F=4A, T_c=25^\circ C$	V_F	0.55			0.70		0.80		V
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage @ $T_c=25^\circ C$ @ $T_c=125^\circ C$	I_R	5.0 50							mA mA
Typical Thermal Resistance Per Leg (Note2)	$R_{\theta JC}$	6.0							$^\circ C/W$
Operating Junction Temperature Range	T_J	-65 to +150							$^\circ C$
Storage Temperature Range	T_{STG}	-65 to +150							$^\circ C$

Notes: 1. Pulse Test: 300us Pulse Width, 1% Duty Cycle

2. Thermal Resistance from Junction to Case Per Leg.

RATINGS AND CHARACTERISTIC CURVES (MBRF830CT THRU MBRF8100CT)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

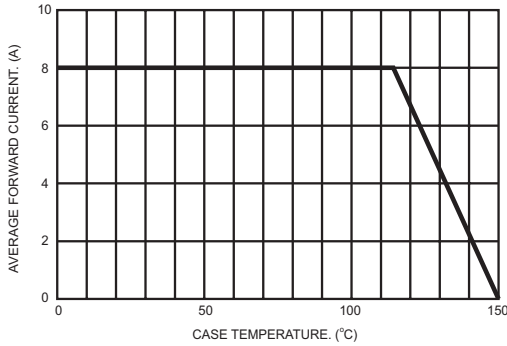


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

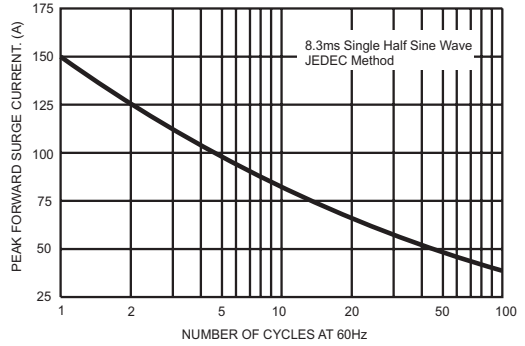


FIG.3- TYPICAL REVERSE CHARACTERISTICS

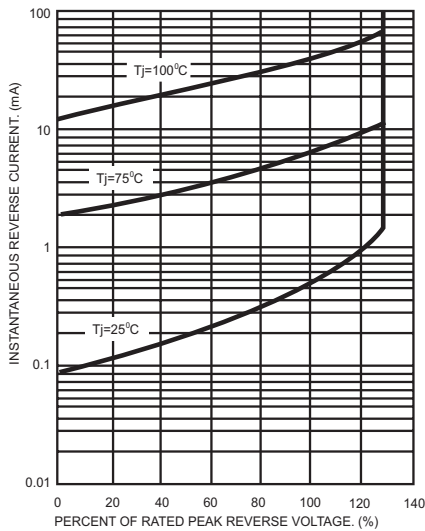


FIG.4- TYPICAL FORWARD CHARACTERISTICS

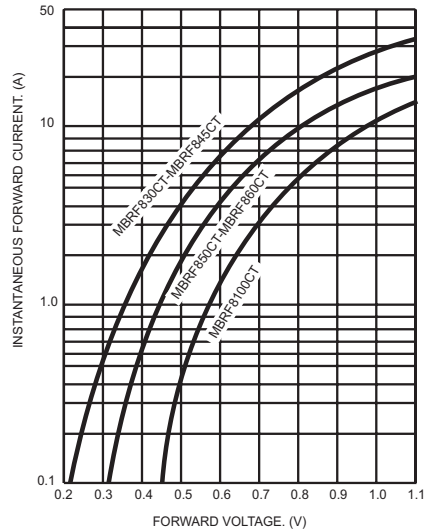


FIG.5- TYPICAL JUNCTION CAPACITANCE

