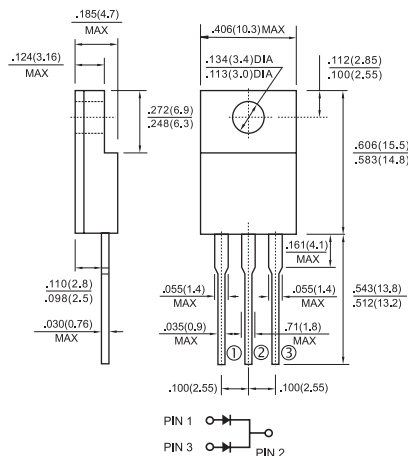


MBRF835CT - MBRF8150CT

Isolated 8.0 AMPS. Schottky Barrier Rectifiers

ITO-220AB



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: Pure tin plated, lead free. 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

Dimensions in inches and (millimeters)

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	MBRF	MBRF	MBRF	MBRF	MBRF	MBRF	Units
		835 CT	845 CT	850 CT	860 CT	890 CT	8100 CT	8150 CT	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	35	45	50	60	90	100	150	V
Maximum RMS Voltage	V_{RMS}	24	31	35	42	63	70	105	V
Maximum DC Blocking Voltage	V_{DC}	35	45	50	60	90	100	150	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		0.95	V
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage @ $T_c = 25^\circ C$ @ $T_c = 125^\circ C$	I_R	0.1				0.1			mA mA
		15		10		5.0			
Typical Thermal Resistance Per Leg (Note2)	$R_{\theta JC}$	6.0							°C/W
Operating Junction Temperature Range	T_J	-65 to +150							°C
Storage Temperature Range	T_{STG}	-65 to +150							°C

- Notes:
1. Pulse Test: 300us Pulse Width, 1% Duty Cycle
 2. Thermal Resistance from Junction to Case Per Leg.

RATINGS AND CHARACTERISTIC CURVES (MBRF835CT THRU MBRF8150CT)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

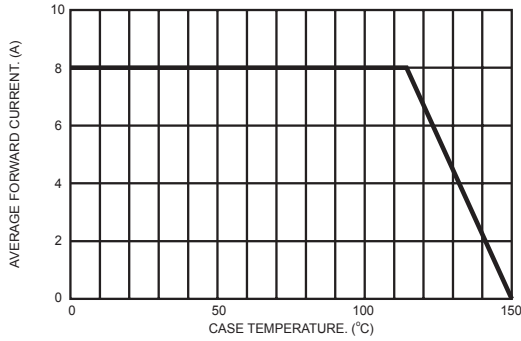


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

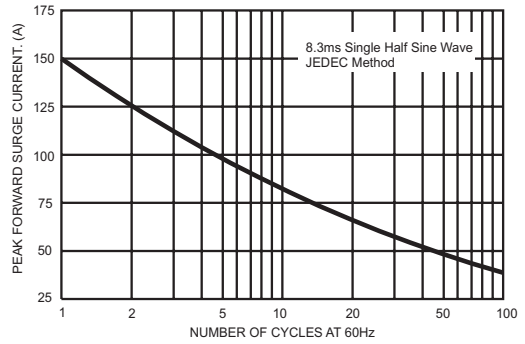


FIG.3- TYPICAL FORWARD CHARACTERISTICS

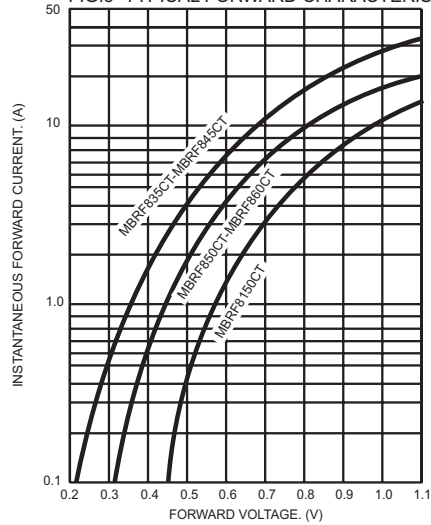


FIG.4- TYPICAL REVERSE CHARACTERISTICS

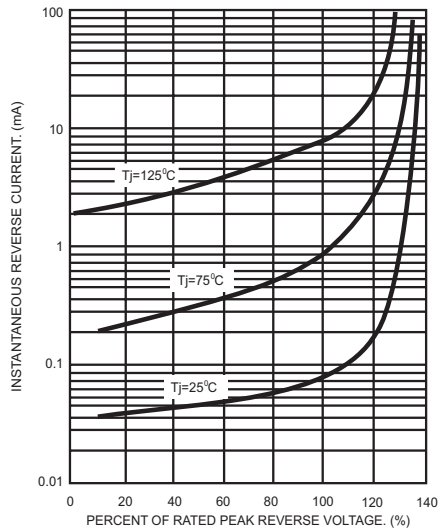


FIG.5- TYPICAL JUNCTION CAPACITANCE

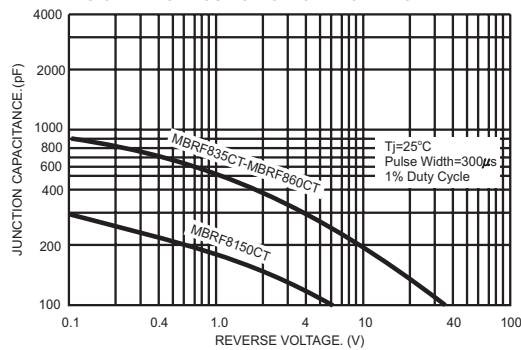


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

