



VOLTAGE RANGE: 30 - 200 V
CURRENT: 8.0 A

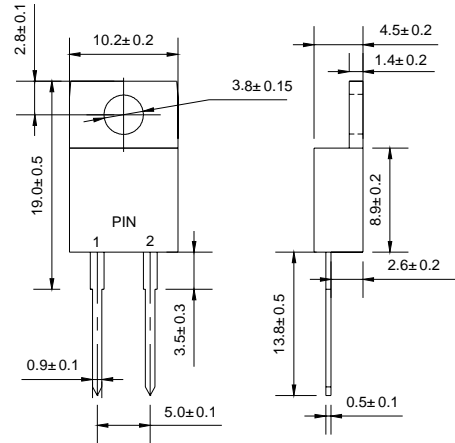
TO-220AC

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.
- ◇ The plastic material carries U/L recognition 94V-0

Mechanical Data

- ◇ Case: JEDEC TO-220AC, molded plastic body
- ◇ Polarity: As marked
- ◇ Position: Any
- ◇ Weight: 0.064 ounces, 1.81 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

Parameter	Symbol	MBR 830	MBR 835	MBR 840	MBR 845	MBR 850	MBR 860	MBR 880	MBR 8100	MBR 8150	MBR 8200	UNITS	
Maximum recurrent peak reverse voltage	V_{RRM}	30	35	40	45	50	60	80	100	150	200	V	
Maximum RMS Voltage	V_{RMS}	21	25	28	32	35	42	56	70	105	140	V	
Maximum DC blocking voltage	V_{DC}	30	35	40	45	50	60	80	100	150	200	V	
Maximum average forward total device rectified current @ $T_c = 125^\circ\text{C}$	$I_{F(AV)}$	8.0										A	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150										A	
Maximum forward voltage (Note 1) ($I_F=8.0\text{A}, T_c=25^\circ\text{C}$)	V_F	0.7			0.8			0.85		0.95		V	
Maximum reverse current @ $T_c=25^\circ\text{C}$ at rated DC blocking voltage @ $T_c=125^\circ\text{C}$	I_R	0.1						15					mA
Maximum thermal resistance (Note 2)	$R_{\theta JC}$	3.0										K/W	
Operating junction temperature range	T_J	- 55 ---- + 150										°C	
Storage temperature range	T_{STG}	- 55 ---- + 150										°C	

NOTE: 1. Pulse test: 300µs pulse width, 1% duty cycle.
2. Thermal resistance from junction to case.

Ratings AND Characteristic Curves

