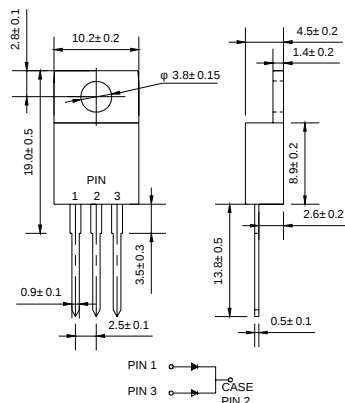




TO-220AB



Dimensions in millimeters

Features

- ✧ Metal-Semiconductor junction with guard ring
- ✧ Epitaxial construction
- ✧ Low forward voltage drop, low switching losses
- ✧ High surge capacity
- ✧ For use in low voltage, high frequency inverters free wheeling, and polarity protection applications
- ✧ The plastic material carries U/L recognition 94V-0

Mechanical Data

- ✧ **Case:** JEDEC TO-220AB, molded plastic body
- ✧ **Polarity:** As marked
- ✧ **Mounting Position:** Any

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	MBR15150CT	MBR15200CT	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	150	200	V
Maximum RMS voltage	V_{RWS}	135	140	V
Maximum DC blocking voltage	V_{DC}	150	200	V
Maximum average forward total device rectified current @ $T_C=100^\circ\text{C}$	$I_{(AV)}$	15		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150		A
Maximum instantaneous forward voltage @ 7.5A	V_F	0.95		V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	I_R	0.2 50		mA
Maximum thermal resistance (Note1)	$R_{\theta JC}$	1.5		$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55 --- +150		$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 --- +150		$^\circ\text{C}$

NOTES: 1. Thermal resistance from junction to case.

Ratings AND Characteristic Curves

FIG.1 TYPICAL FORWARD CHARACTERISTICS

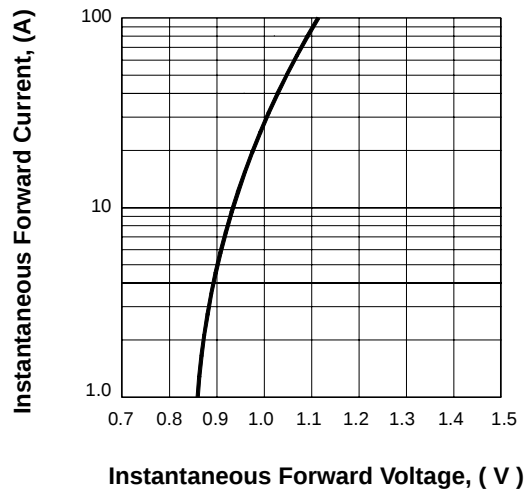


FIG.2 FORWARD DERATING CURVE

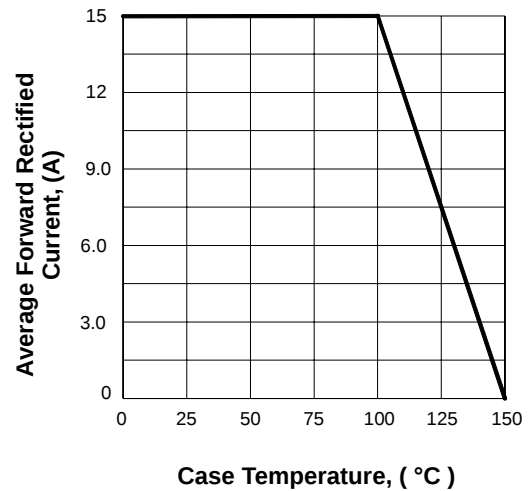


FIG.3 TYPICAL REVERSE CHARACTERISTICS

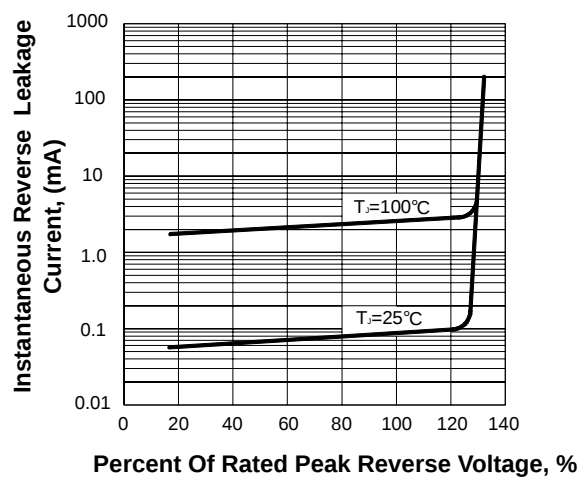


FIG.4 PEAK FORWARD SURGE CURRENT

