MBR10300LFCT

10.0 A Schottky Barrier Rectifier

Features

- ✧ Low power loss, high efficiency
- ✧ High current capability, low forward voltage drop
- ✧ Plastic material used carriers Underwriters Laboratory Classification 94V-0
- ✧ High surge current capability
- ✧ Guard-ring for overvoltage protection
- ✧ For use in low voltage - high frequency inventor, free wheeling, and polarity protection application

Mechanical Data

- ✧ Terminals: Pure tin plated leads, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: As marked
- ✧ Mounting position:Any
- ✧ Mounting torque: 5 in- lbs, max
- ✧ Weight: 1.92 grams

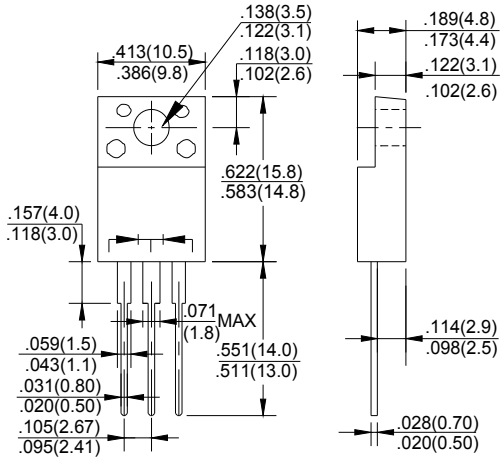
VOLTAGE RANGE

300 Volts

CURRENT

10.0 Ampere

ITO-220AB



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	MBR10300LFCT	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	300	V
Maximum RMS Voltage	V_{RMS}	210	V
Maximum DC Blocking Voltage	V_{DC}	300	V
Maximum Average Forward Rectified Current (See Fig.1) @T_C=95 ℃	$I_{(AV)}$	10	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I_{FSM}	120	A
Peak Forward Voltage at 5.0A DC (Note1)	V_F	0.90	V
Maximum DC Reverse Current @T_J=25℃ at Rated DC Bolcking Voltage @T_J=100℃	I_R	5 500	uA
Typical Junction Capacitance (Note2)	C_J	300	pF
Typical Thermal Resistance (Note3)	$R_{\theta JC}$	3.0	℃/W
Operating Temperature Range	T_J	-55 to +150	℃
Storage Temperature Range	T_{STG}	-55 to +150	℃

NOTES:1.300us pulse width,2% duty cycle.

2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

3.Thermal resistance junction to case.

4.The typical data above is for reference only(典型值仅供参考).

RATING AND CHARACTERTIC CURVES
MBR10300LFCT

FIG. 1 – FORWARD CURRENT DERATING CURVE

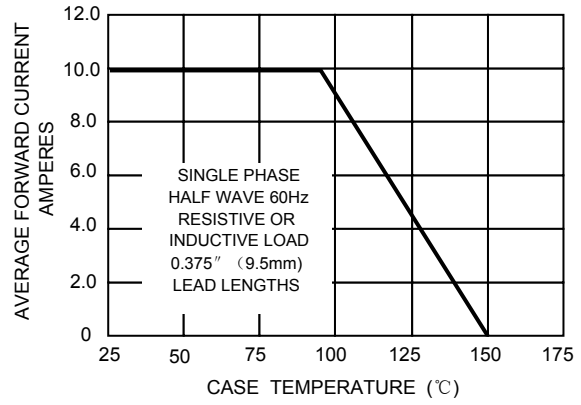


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

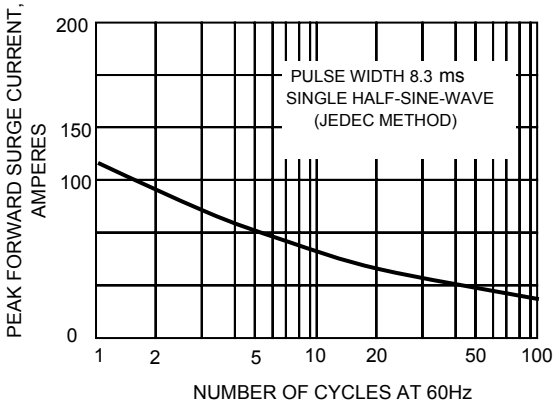


FIG.3-TYPICAL REVERSE CHARACTERISTICS

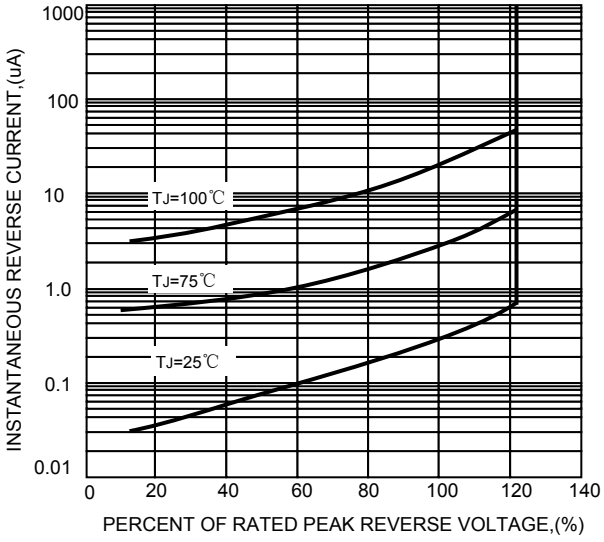


FIG.4-TYPICAL FORWARD CHARACTERISTICS

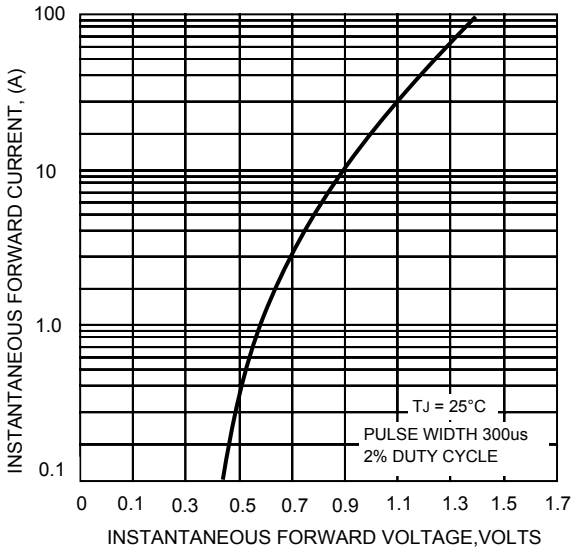
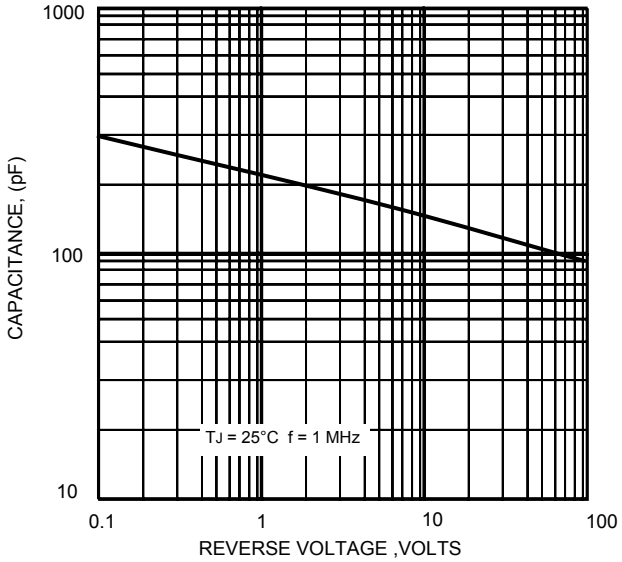


FIG.5 – TYPICAL JUNCTION CAPACITANCE



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!