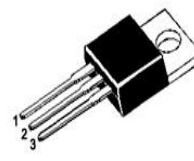
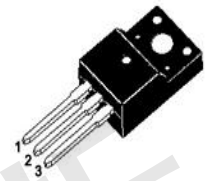


Features And Mechanical Data

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for over voltage protection
- 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
- High temperature soldering:260°C MAX at 10 seconds, per JESD 22-B106 or MIL-STD-750,method 2026
- Case: JEDEC TO-220 molded plastic body



TO-220AB/CT



TO-220F/FCT



Dimensions in inches and (millimeters)

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%.

Type Numbe	Symbols	MBR10L150			Units
Device Marking		MBR10L150			
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	150			Volts
Maximum RMS Voltage	V_{RMS}	105			Volts
Maximum DC Blocking Voltage	V_{DC}	150			Volts
Maximum average forward rectified current (see Fig.1)	$I_{(AV)}$	10.0			Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load per diode	I_{FSM}	150			Amp
Maximum instantaneous forward voltage at $I_{(AV)}$ (Note 1)			Min	Typ	Max
	1A@ $T_J = 25^\circ\text{C}$	V_F	-	0.62	-
	3A@ $T_J = 25^\circ\text{C}$		-	0.75	-
	5A@ $T_A = 25^\circ\text{C}$		-	0.82	0.90
	1A@ $T_J = 125^\circ\text{C}$		-	0.52	-
	3A@ $T_J = 125^\circ\text{C}$		-	0.63	-
	5A@ $T_J = 125^\circ\text{C}$		-	0.76	-
Maximum Reverse Current at Rated DC Blocking Voltage(Note 2)	$T_J = 25^\circ\text{C}$	I_R	-	-	60
	$T_J = 100^\circ\text{C}$		-	-	7
Thermal resistance from junction to ambient	$R_{\theta JA}$	2.5			$^\circ\text{C/W}$
Operating Temperature Range	T_J	-65 to +150			$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to +150			$^\circ\text{C}$

NOTES:

1. Pulse test: 300 μs pulse width, 1% duty cycle
2. Pulse test: Pulse width ≤ 40 ms

RATINGS AND CHARACTERISTIC CURVES

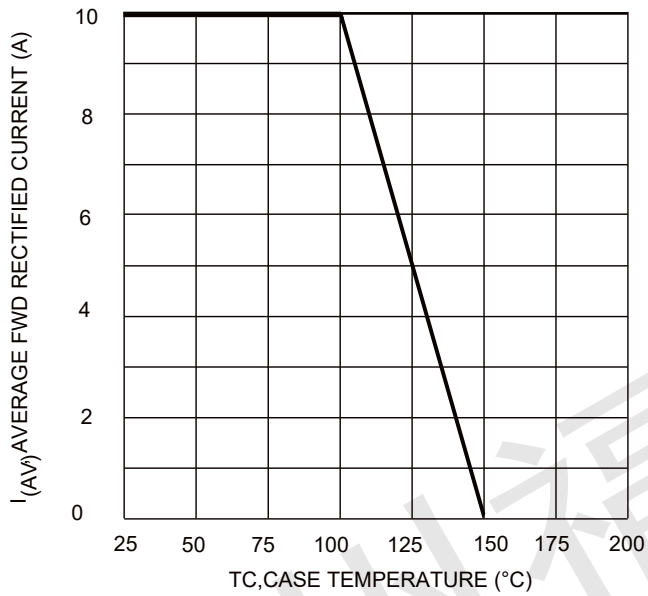


Fig. 1 Forward Derating Curve

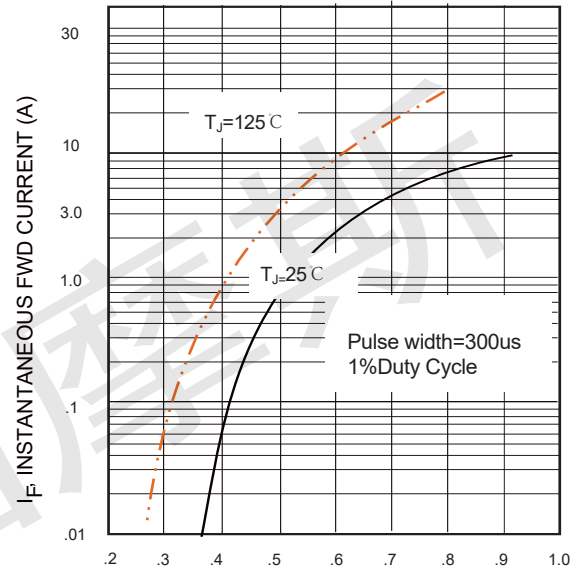


Fig. 2 Typical Forward Characteristics

$T_J = 125^\circ\text{C}$

$T_J = 100^\circ\text{C}$ 80~200V

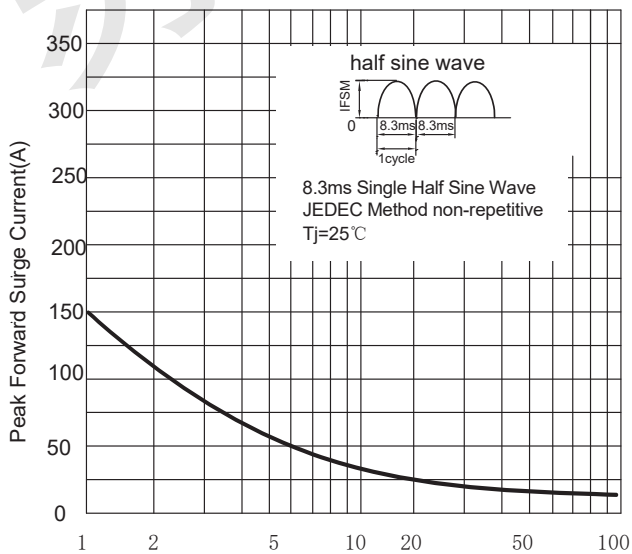


Fig. 3 Max Non-Repetitive Surge Current

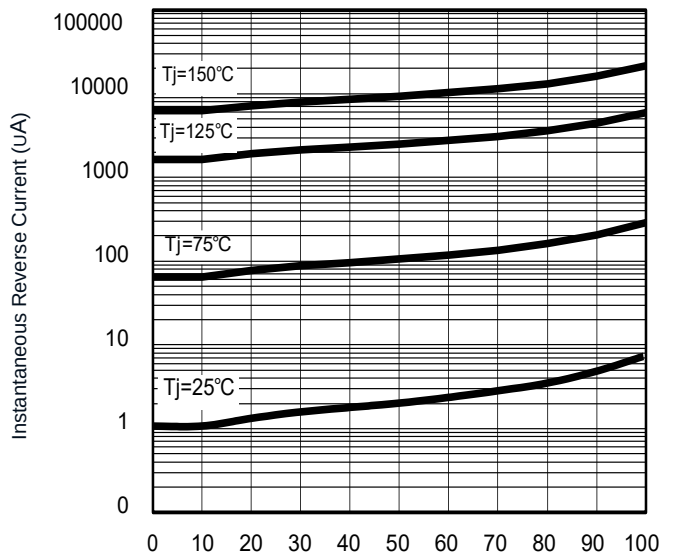


Fig. 4 Typical Junction Capacitance