

Primary Characteristic

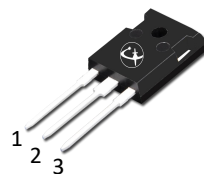
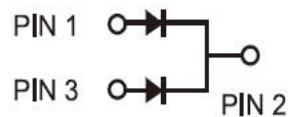
I_O	2*10A
V_{RRM}	300V
I_{FSM}	300A
V_F	0.77V
T_{jmax}	150℃

FEATURES

- High speed switching capability
- High current capability
- High forward surge capability
- Low power losses, High efficiency
- High reliability
- For use in low voltage, high frequency inverters

APPLICATIONS

Fast recovery diode, mainly used for rectification, used in high-power equipment, The express and ultrafast recovery diodes are suitable for high frequency and ultra high frequency circuits, respectively.



TO-247

Product specification classification

Part Number	Package	Mode Name	Pack
MBR20300PT	TO-247	MBR20300PT	Tube

Maximum Ratings at Ta=25°C unless otherwise specified

Parameter		Symbol	Value	Unit
Maximum Repetitive Peak Reverse		V_{RRM}	300	V
Working Peak Reverse Voltage		V_{RWM}	300	V
Maximum DC Blocking Voltage		V_{DC}	300	V
Maximum Average Forward Rectified Current	Per Leg	I_O	10	A
	Total		20	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)		I_{FSM}	200	A
Operating Temperature Range		T_J	150	°C
Storage Temperature Range		T_{STG}	-40 to +150	°C
Typical Thermal Resistance (Note1)		$R_{\theta JC}$	1	°C/W
Note1: Thermal resistance from Junction to case per leg mounted on heatsink.				

Electrical Characteristics unless otherwise specified

Parameter		Symbol	Value		Unit
Forward Voltage Drop(Note2)		V_F	Typ.	Max.	V
at $I_F=2A$	TA=25°C		0.73	-	
	TA=125°C		0.61	-	
at $I_F=5A$	TA=25°C		0.80	-	
	TA=125°C		0.69	-	
at $I_F=10A$	TA=25°C		0.87	0.95	
	TA=125°C		0.77	-	
Maximum Reverse Current at $V_R=300V$	TA=25°C	I_R	0.1	0.5	μA
	TA=125°C		0.1	-	mA

Note2: Pulse test: 300 μs pulse width, 1 % duty cycle

RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

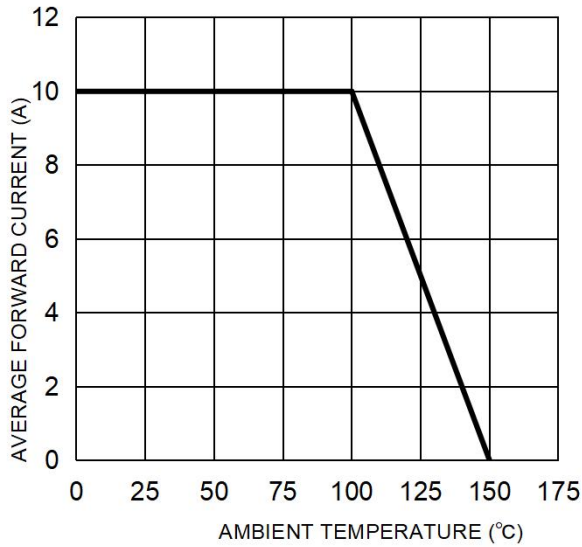


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

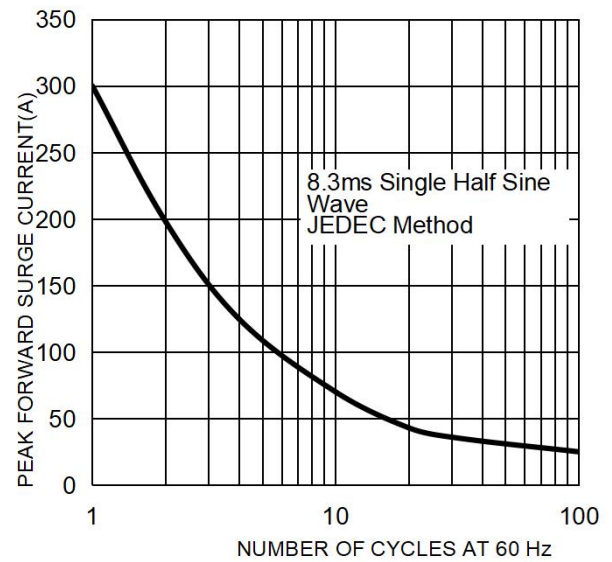


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

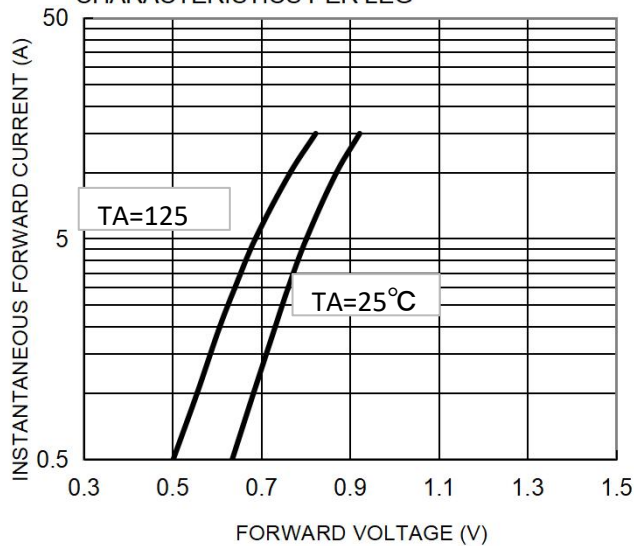
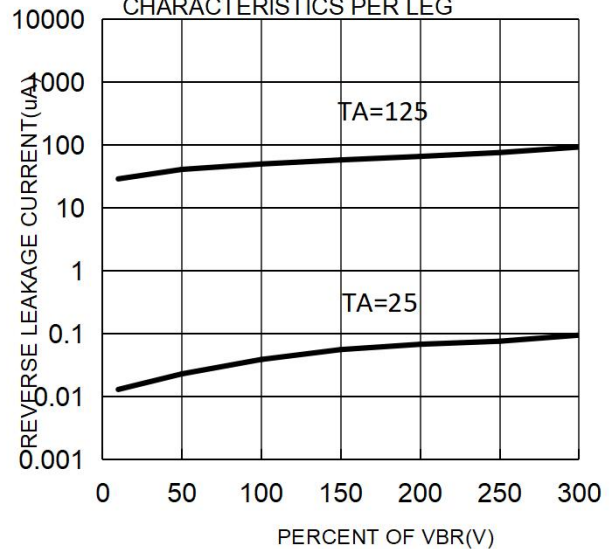
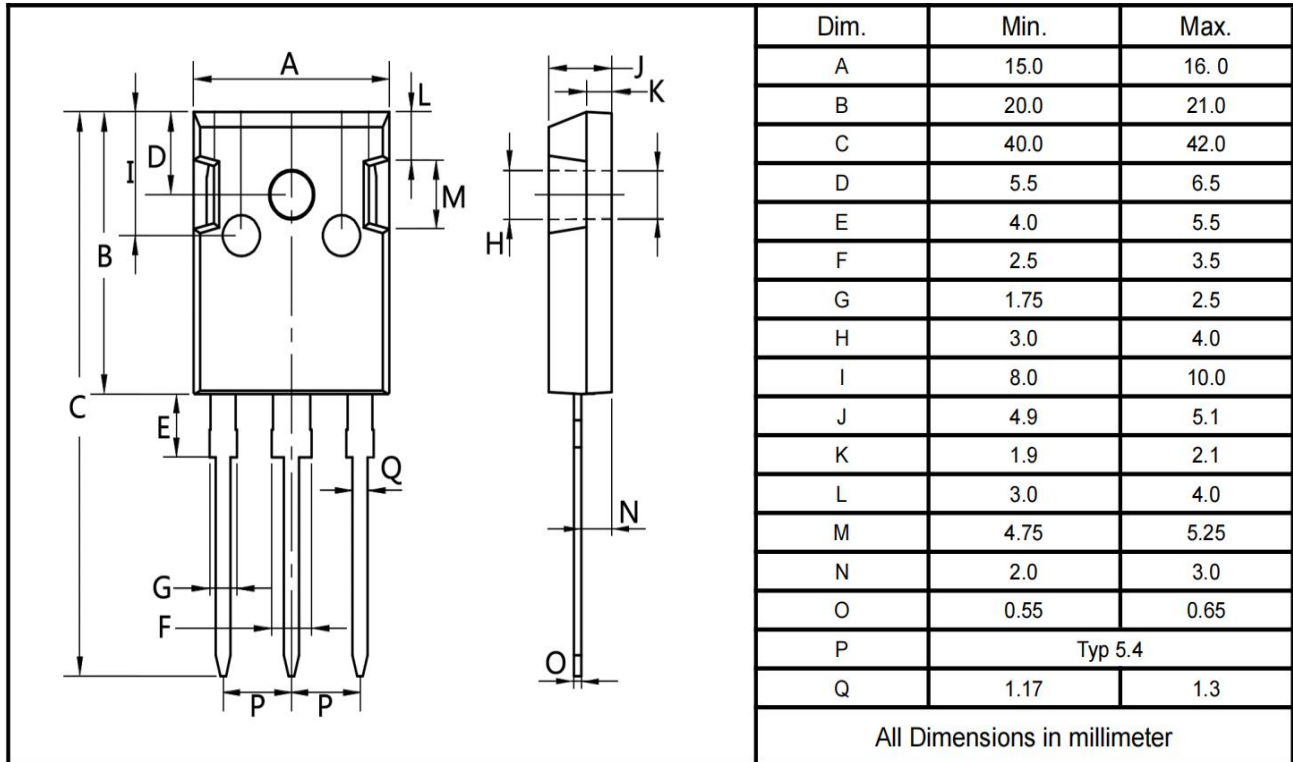


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

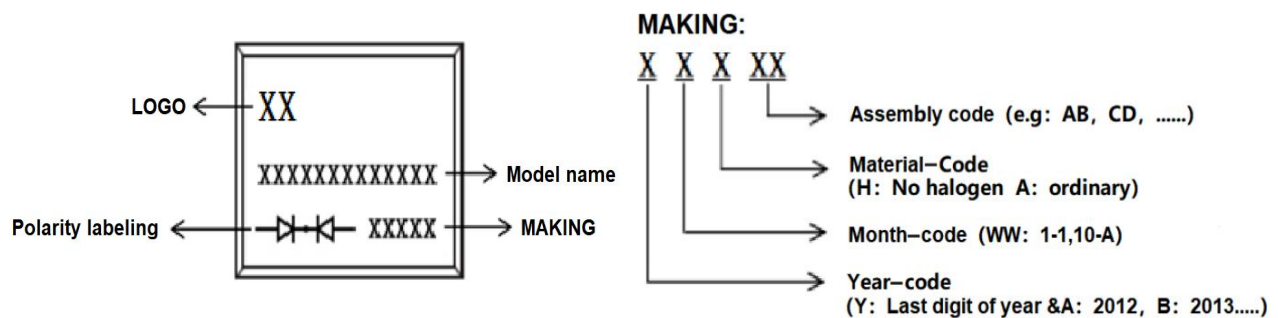


Package Outline Dimensions millimeters

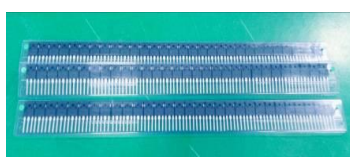
TO-247



Marking on the body



packing instruction

PKG	Minimal Package	Box	carton
TO-247			
	30PCS/tube	600pcs/box	3000pcs/carton



MBR20300PT

SCHOTTKY BARRIER RECTIFIER

Notice

All product, product specifications and data are subject to change without notice to improve. The right to explain is owned by LINGXUN electronics company.

Confirm that operation temperature is within the specified range described in the product specification. Avoid applying power exceeding normal rated power; exceeding the power rating under steady-state loading condition may negatively affect product performance and reliability.

LINGXUN electronics shall not be in any way responsible or liable for failure induced under deviant condition from what is defined in this document.

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Revision History

Rev	Changes	Date
1.0	First version	2025-11-5