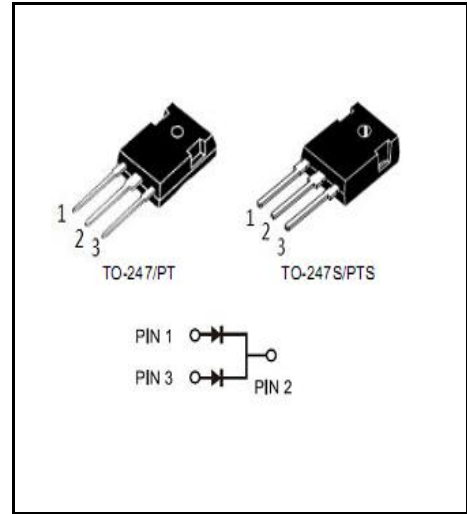


**SCHOTTKY BARRIER RECTIFIER**

**Reverse Voltage - 150 V**

**Forward Current - 40 A**



**FEATURES**

- ◆ Low forward voltage
- ◆ High current capability
- ◆ High forward surge capability
- ◆ Low power losses, High efficiency
- ◆ Guarding for over voltage protection
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

**MECHANICAL DATA**

- ◆ Case: TO-247PT TO-247PTS
- ◆ Solder bath temperature 275°C maximum, 10s per JESD22-106

**Primary Characteristic**

<b>I<sub>o</sub></b>	<b>2*20A</b>
<b>V<sub>RRM</sub></b>	<b>150V</b>
<b>I<sub>FSM</sub></b>	<b>450A</b>
<b>V<sub>F</sub></b>	<b>0.71V</b>
<b>T<sub>J</sub> Max</b>	<b>150°C</b>

**Maximum Ratings (Per Leg) at Ta=25°C unless otherwise specified**

Parameter	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	<b>V<sub>RRM</sub></b>	150	<b>V</b>
Maximum RMS voltage	<b>V<sub>RMS</sub></b>	150	<b>V</b>
Maximum DC Blocking Voltage	<b>V<sub>DC</sub></b>	150	<b>V</b>
Maximum Average Forward Rectified Current	Per Leg	20	<b>A</b>
	Total	40	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave	<b>I<sub>FSM</sub></b>	450	<b>A</b>
Operating Temperature Range	<b>T<sub>J</sub></b>	150	<b>°C</b>
Storage Temperature Range	<b>T<sub>STG</sub></b>	-40 ~ +150	<b>°C</b>
Typical Thermal Resistance <sup>(Note1)</sup> TO-247PT, TO-247PTS	<b>R<sub>θJA</sub> R<sub>θJC</sub></b>	2/4	<b>°C/W</b>

**Note1:** Thermal resistance from Junction to case per leg mounted on heatsink.

**Electrical Characteristics (Per Leg) unless otherwise specified**

Characteristics	Symbols	Value		Units	
		Typ	Max		
Forward Voltage Drop(Note2) at I <sub>F</sub> =5A at I <sub>F</sub> =10A at I <sub>F</sub> =20A	<b>V<sub>F</sub></b>	TA=25°C	0.70	-	<b>V</b>
		TA=125°C	0.56	-	
		TA=25°C	0.76	-	
		TA=125°C	0.63	-	
		TA=25°C	0.83	0.88	
		TA=125°C	0.71	-	
Maximum Reverse Current at V <sub>R</sub> =150V	<b>I<sub>R</sub></b>	TA=25°C	5	10	<b>uA</b>
		TA=125°C	3	-	<b>mA</b>

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

**RATINGS AND CHARACTERISTIC CURVES**

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

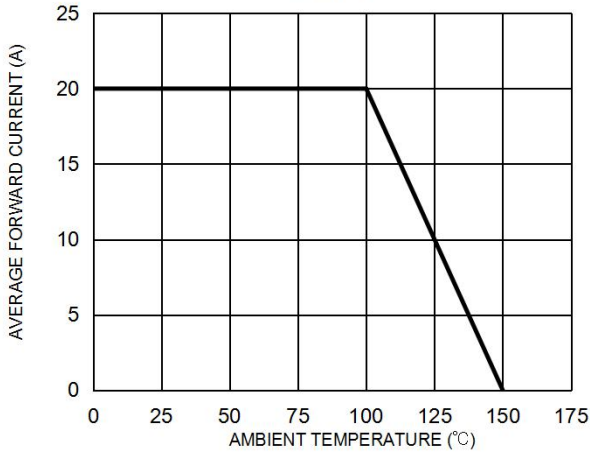


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

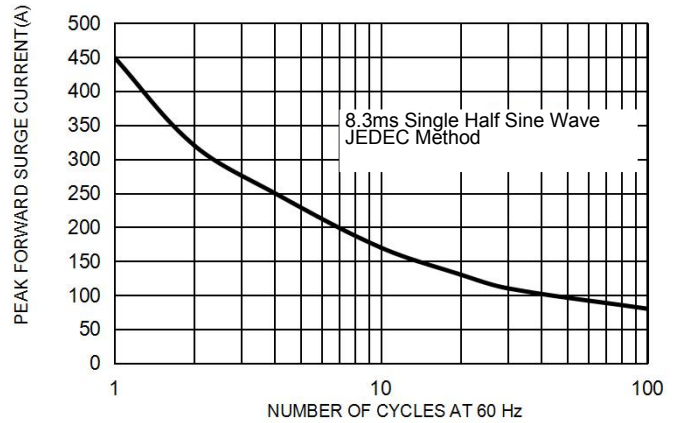


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

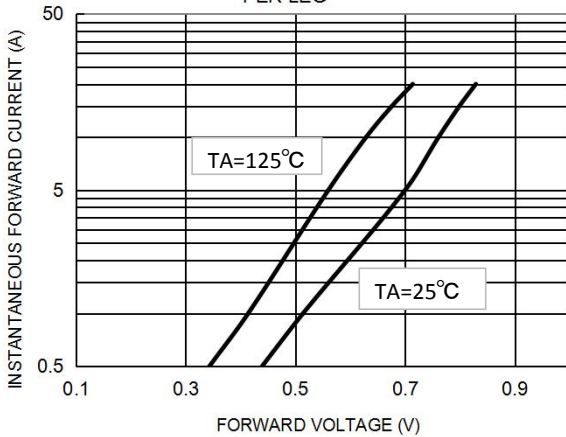
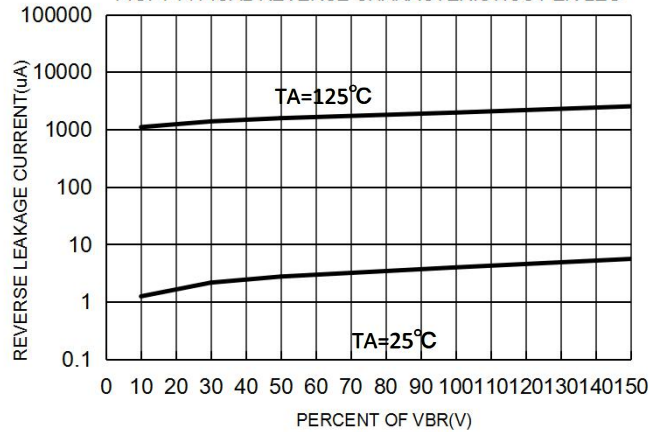
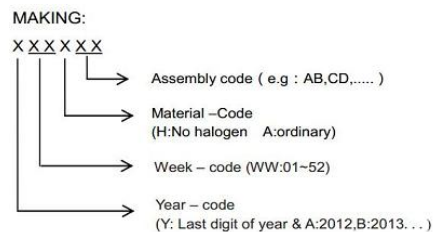
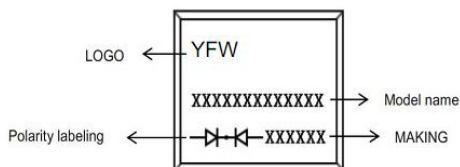


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



**Marking on the body**



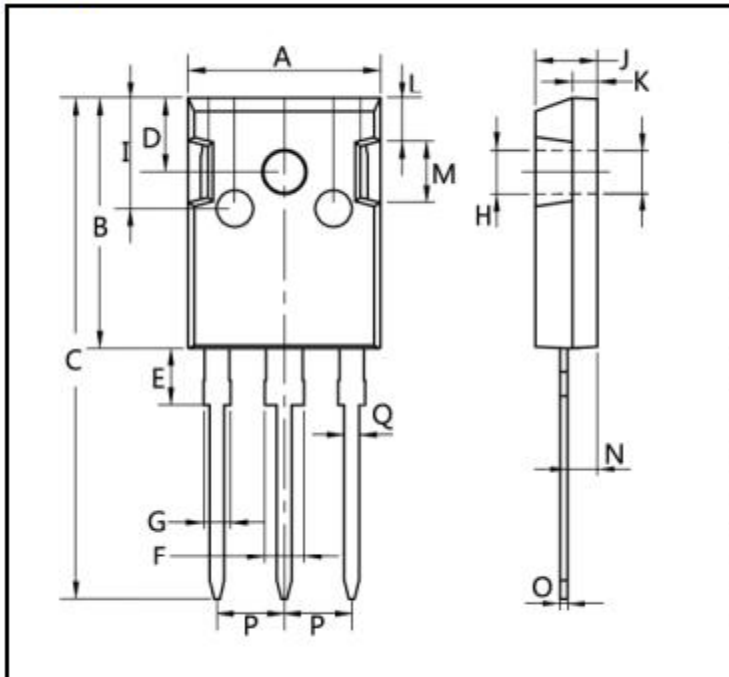
**Ordering information**

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
MBR40150PT-B	TO-247	0.209oz(5.93g)	30 pcs / tube	600pcs/box 2400pcs/carton
MBR40150PTS-B	TO-247S	0.158oz(4.48g)	30 pcs / tube	600pcs/box 2400pcs/carton

Note: For Halogen Free molding compound, add "H" suffix to part number above.

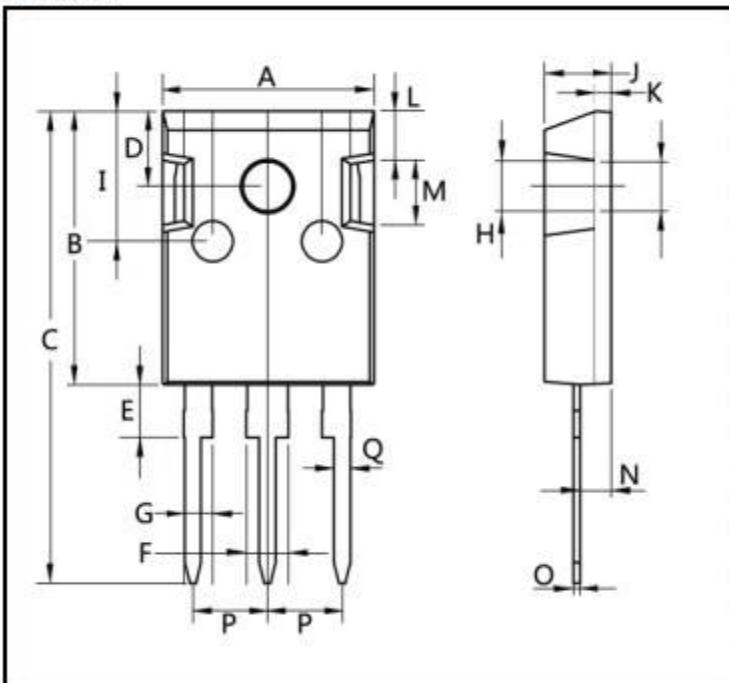
Package Outline Dimensions millimeters

**TO-247**



Dim.	Min.	Max.
A	15.0	16.0
D	20.0	21.0
C	40.0	42.0
D	5.5	6.5
E	4.0	5.5
F	2.5	3.5
G	1.75	2.5
H	3.0	4.0
I	8.0	10.0
J	4.9	5.1
K	1.9	2.1
L	3.0	4.0
M	4.75	5.25
N	2.0	3.0
O	0.55	0.65
P	Typ 5.4	
Q	1.2	1.3
All Dimensions in millimeter		

**TO-247S**



Dim.	Min.	Max.
A	15.0	16.0
B	19.5	20.5
C	33.5	35.5
D	5.0	6.0
E	3.5	4.5
F	2.5	3.5
G	1.75	2.5
H	3.0	4.0
I	9.0	11.0
J	4.9	5.1
K	1.15	1.35
L	3.0	4.0
M	4.75	5.25
N	2.0	2.5
O	0.45	0.55
P	Typ 5.4	
Q	1.2	1.3
All Dimensions in millimeter		

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[NTE555](#) [JANS1N6640](#) [SB07-03C-TB-H](#) [SK310-T](#) [SK33A-TP](#) [SK34B-TP](#) [SS3003CH-TL-E](#) [PDS3100Q-7](#) [GA01SHT18](#)  
[CRS10I30A\(TE85L,QM](#) [MA4E2501L-1290](#) [MBRB30H30CT-1G](#) [JANTX1N5712-1](#) [SB007-03C-TB-E](#) [SK33B-TP](#) [SK35A-TP](#) [SK38B-LTP](#)  
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[NRVB130LSFT1G](#) [CRS08TE85LQM](#) [PMAD1108-LF](#) [B120Q-13-F](#) [1N5819T-G](#) [B0530WSQ-7-F](#)