

SCHOTTKY BARRIER RECTIFIER
Reverse Voltage - 200 V
Forward Current - 20 A
FEATURES

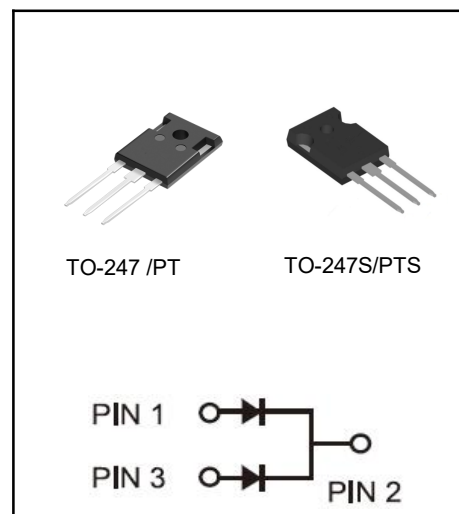
- ◆Low forward voltage
- ◆High current capability
- ◆High forward surge capability
- ◆Low power losses, High efficiency
- ◆Guarding for over voltage protection

MECHANICAL DATA

- ◆Case: Molded plastic
- ◆Polarity: As marked
- ◆Mounting Position: Any
- ◆Molded Plastic: UL Flammability Classification Rating 94V-0
- ◆Lead free in compliance with EU RoHS 2011/65/EU directive
- ◆Solder bath temperature 275°C maximum, 10s per JESD 22-B106

Primary Characteristic

I_o	2*10A
V_{RRM}	200V
I_{FSM}	250A
V_F	0.76V
T_J Max	150°C
Assembly code	AH


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

Parameter		Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	200	V
Maximum RMS voltage		V_{RMS}	140	V
Maximum DC Blocking Voltage		V_{DC}	200	V
Maximum Average Forward Rectified Current	Per Leg	I_o	10	A
	Total		20	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave		I_{FSM}	250	A
Operating Temperature Range		T_J	150	°C
Storage Temperature Range		T_{STG}	-40 ~ +150	°C
Typical Thermal Resistance (Note1)		R_{θJC}	2	°C/W

Note1: Thermal resistance from Junction to case per leg mounted on heatsink.
Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics		Symbols	Value		Units
Forward Voltage Drop(Note2)		V_F	Typ	Max	V
at I _F =3 A	TA=25°C		0.76	-	
	TA=125°C		0.63	-	
at I _F =5 A	TA=25°C		0.80	-	
	TA=125°C		0.68	-	
at I _F =10 A	TA=25°C		0.87	0.95	
	TA=125°C		0.76	-	
Maximum Reverse Current at V _R =150V	TA=25°C	I_R	1	10	μA
	TA=125°C		1	-	mA

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

RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

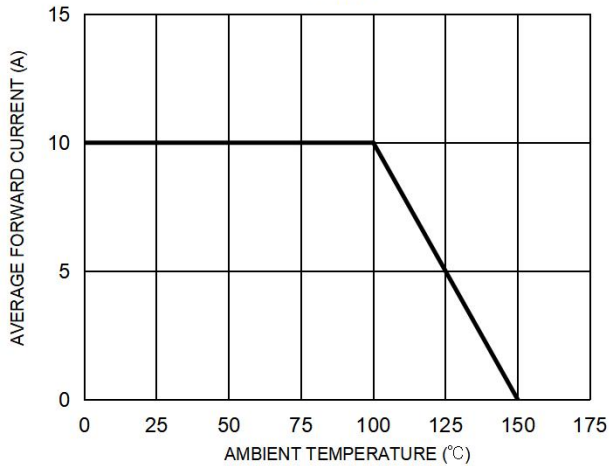


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

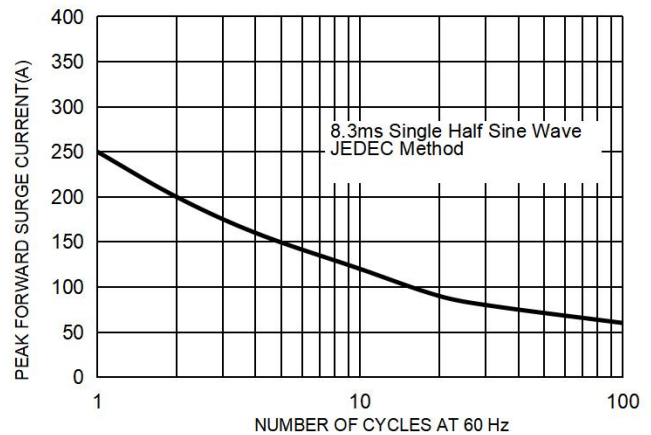


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

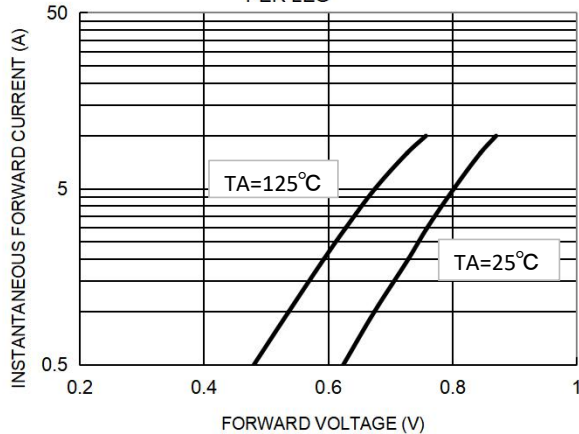
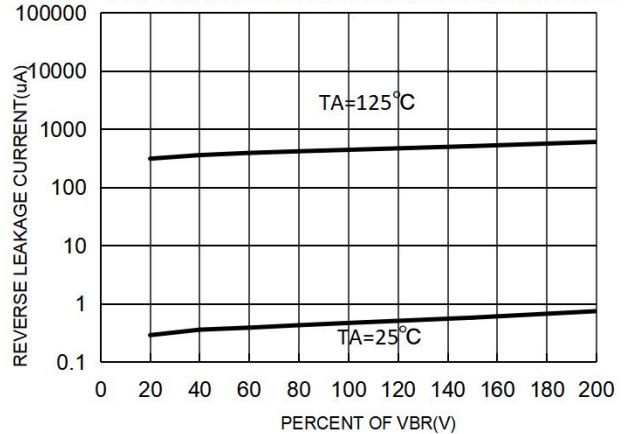
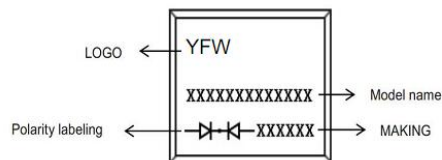


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



Marking on the body



MAKING:

X X X X X X

- Assembly code (e.g : AB,CD,.....)
- Material -Code (H:No halogen A:ordinary)
- Week - code (WW:01~52)
- Year - code (Y: Last digit of year & A:2012,B:2013. ...)

Ordering information

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
MBR20200PT	TO-247	0.209oz(5.93g)	30 pcs / tube	600pcs/box 3000pcs/carton
MBR20200PTS	TO-247S	0.158oz(4.48g)	30 pcs / tube	600pcs/box 3000pcs/carton

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

Package Outline Dimensions millimeters

TO-247

The image shows a technical drawing of a TO-247 package. The top view (left) shows a rectangular body with a central circular hole and two side holes. Dimensions A, B, C, D, E, F, G, I, L, M, P, and Q are labeled. The side view (right) shows the package's profile with dimensions H, J, K, N, and O. Dimension A is the total width, B is the body width, C is the total height, D is the top flange thickness, E is the lead height, F is the lead thickness, G is the lead width, I is the top flange height, L is the top flange width, M is the top flange thickness, P is the lead pitch, Q is the lead width, H is the body height, J is the lead length, K is the lead thickness, N is the lead height, and O is the lead width.

Dim.	Min.	Max.
A	15.0	16.0
B	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	TYP5.4	
Q	1.17	1.3

All Dimensions in millimeter

TO-247S

The image shows a technical drawing of a TO-247S package. The top view (left) shows a rectangular body with a central circular hole and two side holes. Dimensions A, B, C, D, E, F, G, I, L, M, P, and Q are indicated. The side view (right) shows the package's profile with dimensions H, J, K, N, and O. The package has a central pin and two side pins.

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	TYP5.4	
Q	1.17	1.3

All Dimensions in millimeter