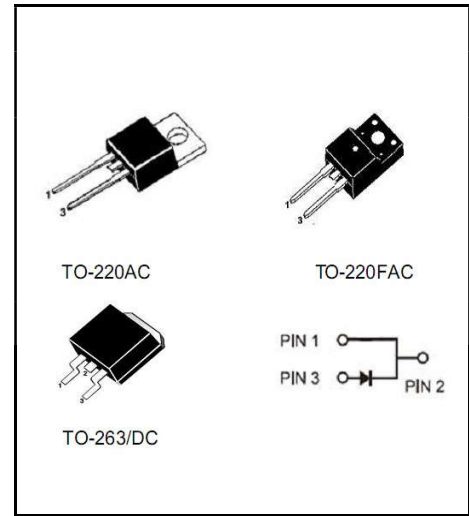


**SCHOTTKY BARRIER RECTIFIER**
**Reverse Voltage - 100 V**
**Forward Current - 10 A**
**FEATURES**

- ◆Very 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-220AB/CT TO-220F/FCT TO-263/DC TO-252/CS
- ◆Solder bath temperature 275°C maximum, 10s per JESD22-106


**Primary Characteristic**

<b>I<sub>o</sub></b>	<b>10A</b>
<b>V<sub>R</sub>RM</b>	<b>100V</b>
<b>I<sub>F</sub>SM</b>	<b>340A</b>
<b>V<sub>F</sub></b>	<b>0.63V</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>R</sub>RM</b>	100	<b>V</b>
Maximum RMS voltage	<b>V<sub>R</sub>MS</b>	70	<b>V</b>
Maximum DC Blocking Voltage	<b>V<sub>D</sub>C</b>	100	<b>V</b>
Maximum Average Forward Rectified Current	Total <b>I<sub>o</sub></b>	10	<b>A</b>
Peak Forward Surge Current, 8.3ms Single Half Sine-wave	<b>I<sub>F</sub>SM</b>	340	<b>A</b>
Operating Temperature Range	<b>T<sub>J</sub></b>	-40 ~ +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-220AC, TO-263 TO-220FAC	<b>R<sub>θ</sub>JA/ R<sub>θ</sub>JC</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
Forward Voltage Drop(Note2)	<b>V<sub>F</sub></b>	<b>Typ</b>	<b>Max</b>	<b>V</b>
at I <sub>F</sub> =3A		0.63	-	
TA=25°C				
TA=125°C		0.51	-	
at I <sub>F</sub> =5A		0.69	-	
TA=25°C				
at I <sub>F</sub> =5A	0.56	-		
TA=125°C				
at I <sub>F</sub> =10A	0.76	0.82		
TA=25°C				
at I <sub>F</sub> =10A	0.63	-		
TA=125°C				
Maximum Reverse Current at V <sub>R</sub> =100V	<b>I<sub>R</sub></b>	3	10	<b>uA</b>
		2	-	<b>mA</b>

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

**RATINGS AND CHARACTERISTIC CURVES**

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

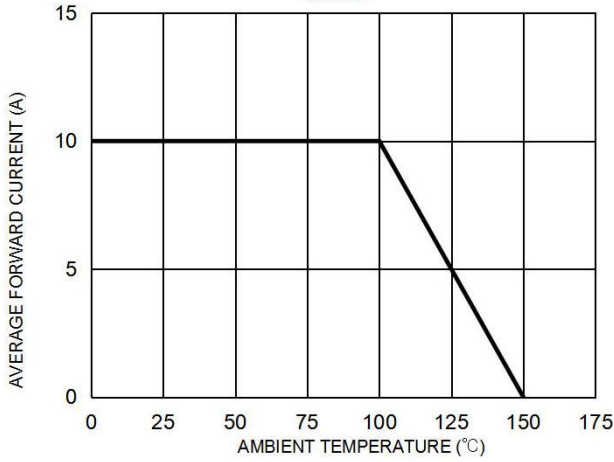


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

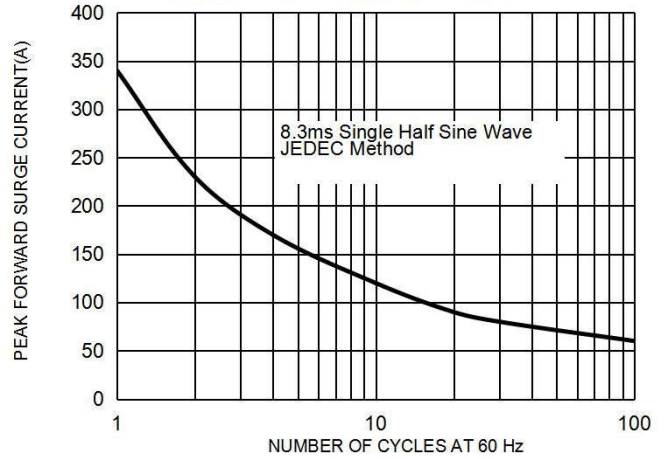


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

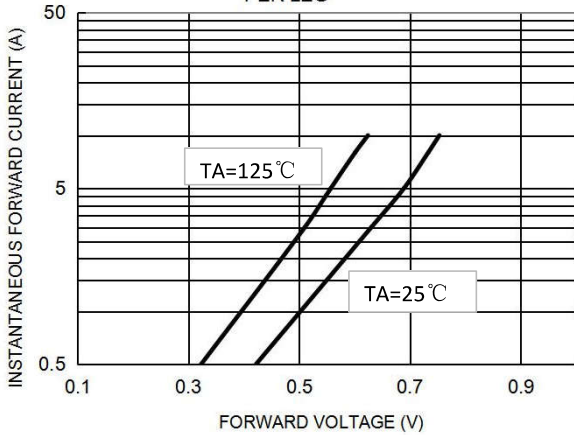
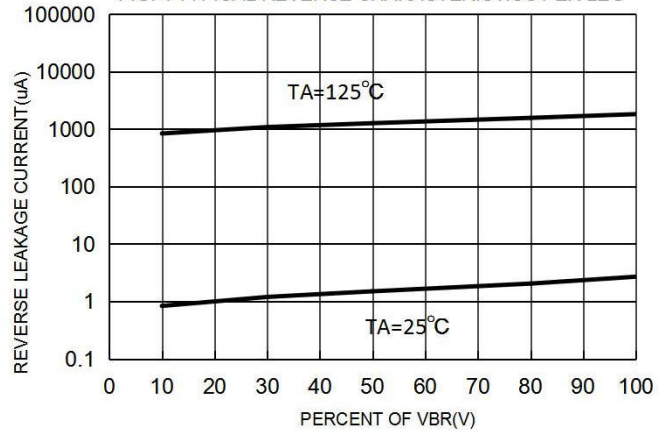
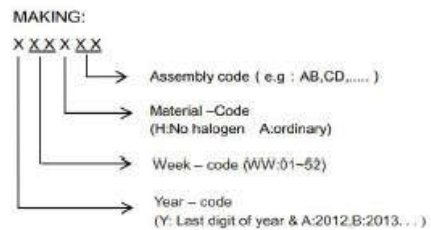
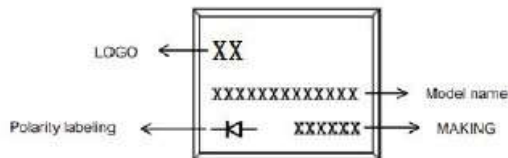


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



**Marking on the body**



**Ordering information**

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
MBR10100AC	TO-220AC	0.067oz(1.9g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MBR10100FAC	TO-220FAC	0.06oz(1.7g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MBR10100DC-G	TO-263	0.04oz(1.16g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MBR10100DC	TO-263	0.04oz(1.16g)	800 pcs / reel	1600pcs/box4000pcs/carton

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

Package Outline Dimensions millimeters

**TO-220AC**

DIM.	Min.	Max.
A	10.15	10.35
B	2.65	2.95
C	3.70	3.9
D	28.5	29.5
E	1.3	1.45
F	1.4	1.6
G	2.9	3.3
H	15.0	16.0
I	0.38	0.42
J	4.45	4.55
K	1.25	1.35
L	6.35	6.55
M	Typ 5.08	
N	Typ 2.54	
O	0.76	0.84
P	3.1	3.3
ALL Dimensions in millmtrter		

**TO-220FAC**

DIM.	Min.	Max.
A	9.95	10.25
B	2.95	3.25
C	1.25	1.45
D	12.95	13.25
E	0.50	0.65
F	3.1	3.3
G	1.30	1.45
H	Typ 2.54	
I	Typ 5.08	
J	4.60	4.75
K	2.50	2.65
L	6.35	6.55
M	15.4	16.0
N	2.75	3.05
O	0.48	0.52
P	1.4	1.60
Q	0.76	0.84
ALL Dimensions in millmtrter		

TO-263

DIM.	Min.	Max.
A	10.1	10.2
B	7.4	7.6
C	1.3	1.5
D	0.55	0.75
E	5.0	6.0
F	1.4	1.6
G	0.78	0.86
H	1.2	1.3
I	Typ 2.54	
J	8.4	8.6
K	4.45	4.55
L	1.25	1.35
M	0.02	0.1
N	2.4	2.8
O	0.36	0.40
ALL Dimensions in millimeter		

