

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 60 V

Forward Current - 20 A

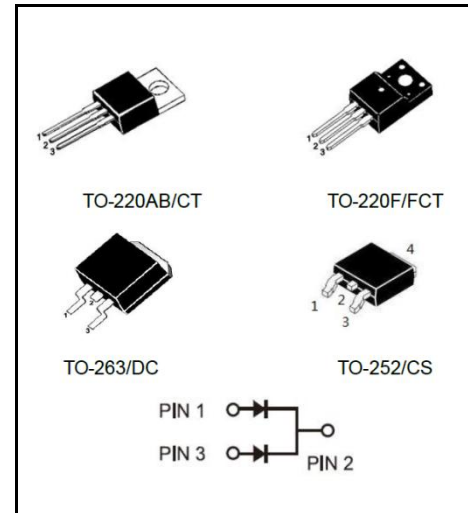


FEATURES

- ◆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

I_o	2*10A
V_{RRM}	60V
I_{FSM}	300A
V_F	0.63V
T_J Max	150°C

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

Parameter	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	60	V
Maximum RMS voltage	V_{RMS}	60	V
Maximum DC Blocking Voltage	V_{DC}	60	V
Maximum Average Forward Rectified Current	Per Leg	10	A
	Total	20	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave	I_{FSM}	300	A
Operating Temperature Range	T_J	-55 ~ +150	°C
Storage Temperature Range	T_{STG}	-55 ~ +150	°C
Typical Thermal Resistance ^(Note1) TO-220AB, TO-263 TO-220F TO252	R_{θJA}/ R_{θJC}	2/4	°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 =3A	TA=25°C		0.51	-	
	TA=125°C		0.45	-	
at I _F =5A	TA=25°C		0.59	-	
	TA=125°C		0.53	-	
at I _F =10A	TA=25°C		0.72	0.78	
	TA=125°C		0.63	-	
Maximum Reverse Current at V _R =60V	TA=25°C	I _R	3	50	uA
	TA=125°C		2	-	mA

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

RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

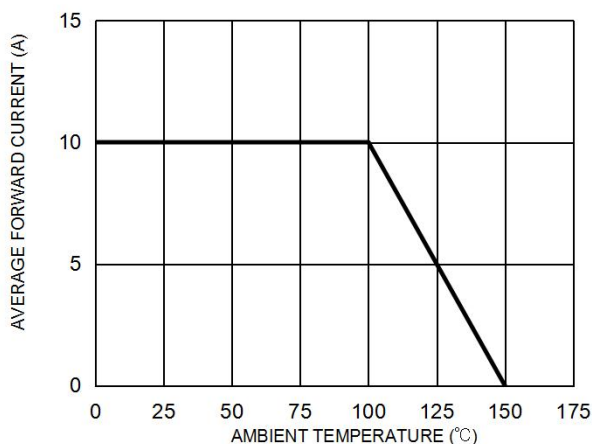


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

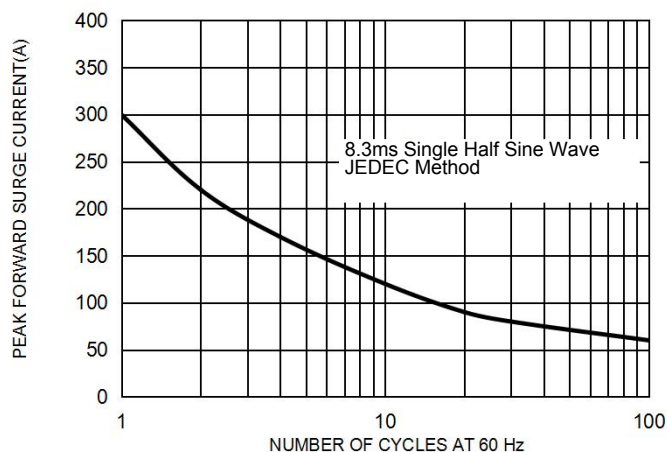


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

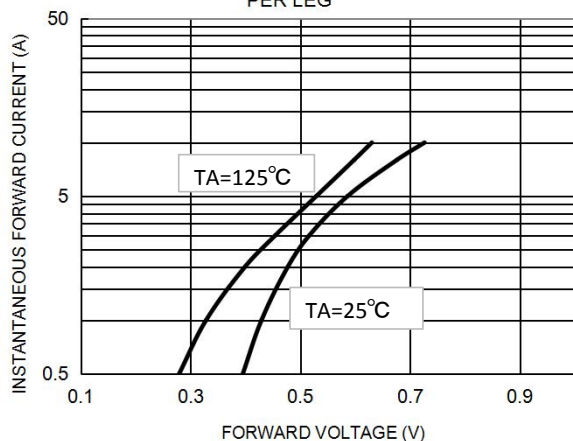
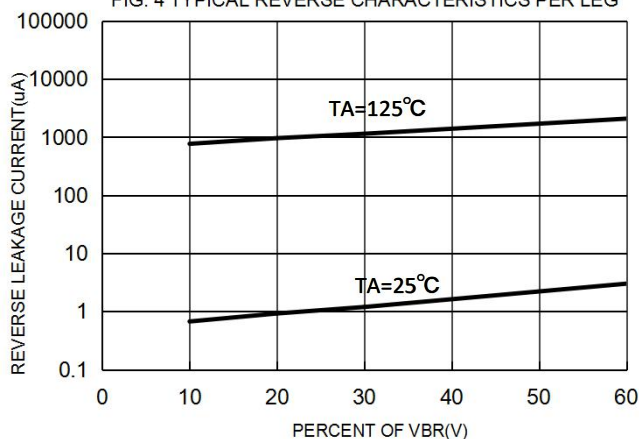
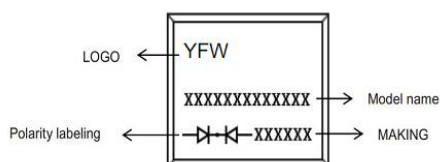


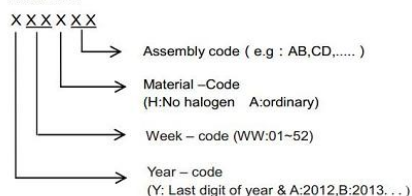
FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



Marking on the body



MAKING:



Ordering information

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
MBR2060CT	TO-220AB	0.07oz(1.96g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MBR2060FCT	TO-220F	0.06oz(1.74g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MBR2060DC	TO-263	0.04oz(1.16g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MBR2060DC -R	O-263	0.04oz(1.16g)	800 pcs / reel	800pcs/box 4000pcs/carton
MBR2060CS	TO-252	0.011oz(0.32g)	2500 pcs / reel	2500pcs/box 12500pcs/carton

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

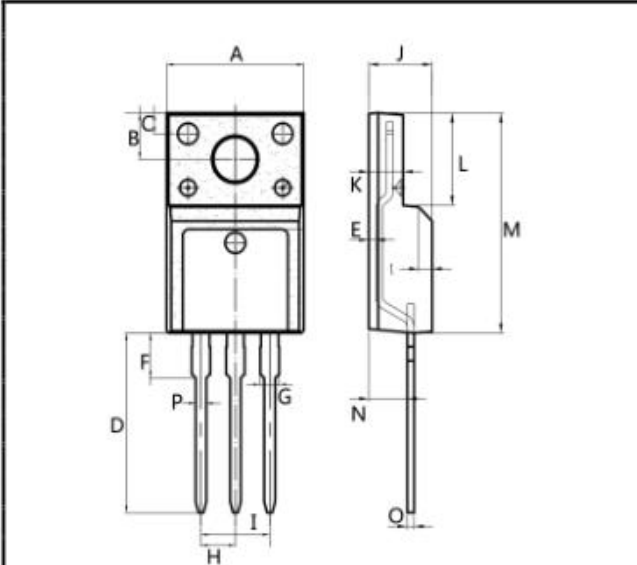
TO-220AB

The image shows a technical drawing of a TO-220AB package. The top view (left) shows a rectangular body with a circular mounting hole. Dimensions A, B, C, D, E, L, M, N, and O are indicated. The side view (right) shows the package's profile with dimensions F, G, H, I, J, and K. The package has a central body with three leads extending from the bottom. The mounting hole is located at a distance C from the top edge and has a diameter of 3.3 mm. The leads have a thickness of 0.38 mm and a width of 0.76 mm. The package is shown in a standard TO-220AB configuration.

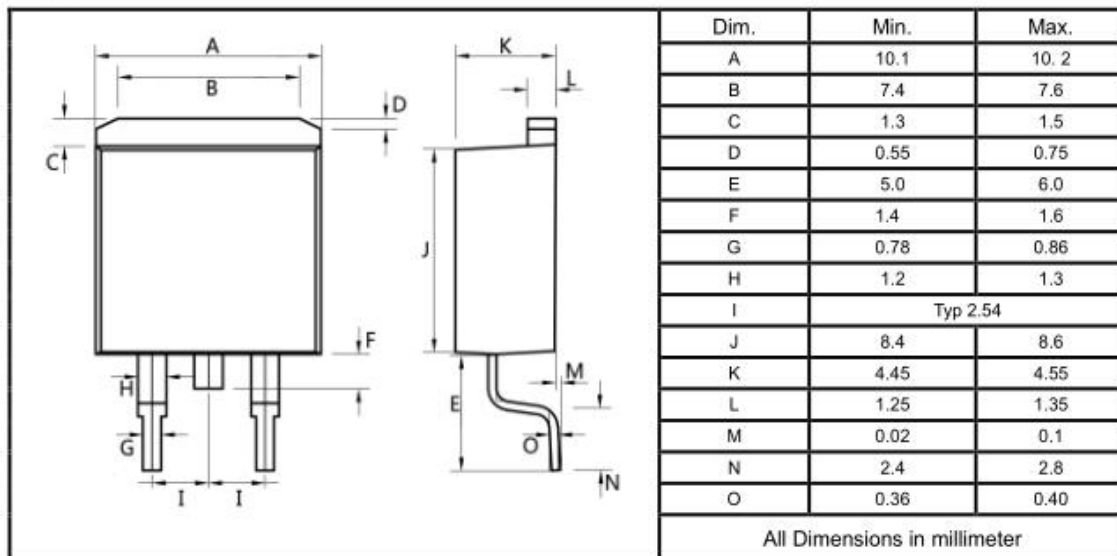
Dim.	Min.	Max.
A	10.15	10.35
B	2.65	2.95
C	3.70	3.90
D	28.5	29.5
E	1.30	1.45
F	6.35	6.55
G	2.9	3.3
H	15.0	16.0
I	0.38	0.42
J	4.45	4.55
K	1.25	1.35
L	Typ 5.08	
M	Typ 2.54	
N	3.1	3.3
O	0.76	0.84

All Dimensions in millimeter

TO-220F

	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	0.76	0.84	
All Dimensions in millimeter			

TO-263



TO-252

