

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 100 V

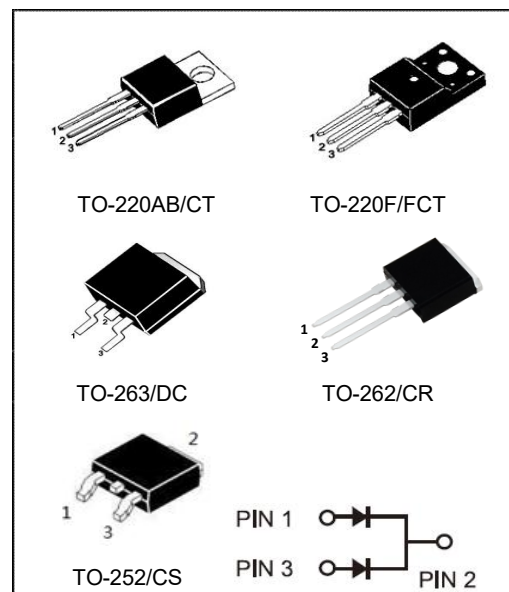
Forward Current - 30 A

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*15A
V_{RRM}	100V
I_{FSM}	350A
V_F	0.68V
$T_J \text{ Max}$	150°C

Maximum Ratings (Per Leg) at $T_a=25^\circ\text{C}$ unless otherwise specified

Characteristics	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}	70	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Maximum Average Forward Rectified Current	Per Leg	15	A
	Total	30	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	350	A
Operating Temperature Range	T_J	150	°C
Storage Temperature Range	T_{STG}	-40 to +150	°C
Typical Thermal Resistance (Note1) TO-220AB, TO-263, TO-220F	$R_{\theta JC}$	2 4	°C/W

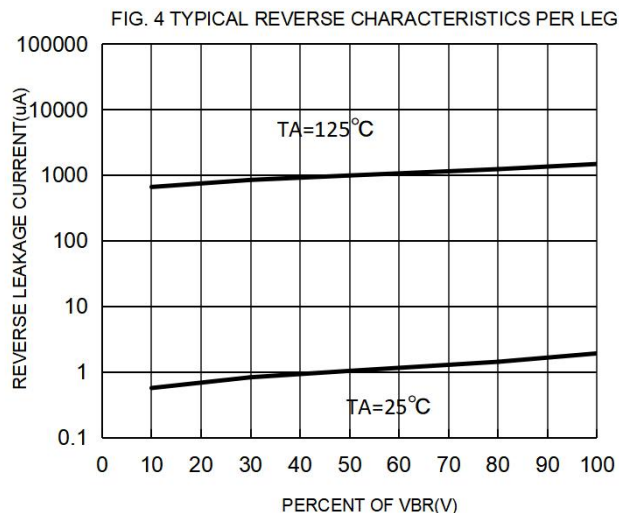
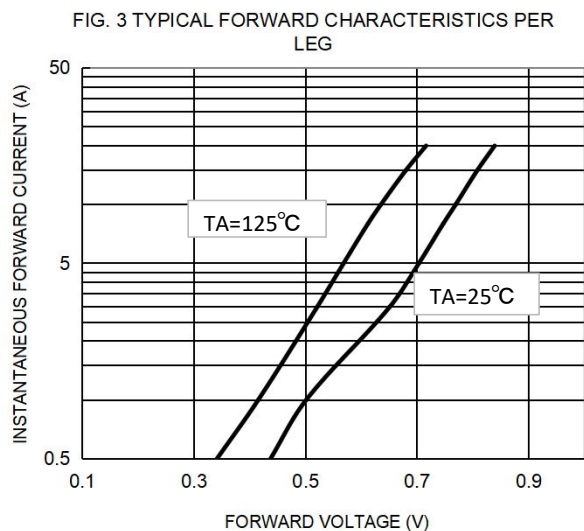
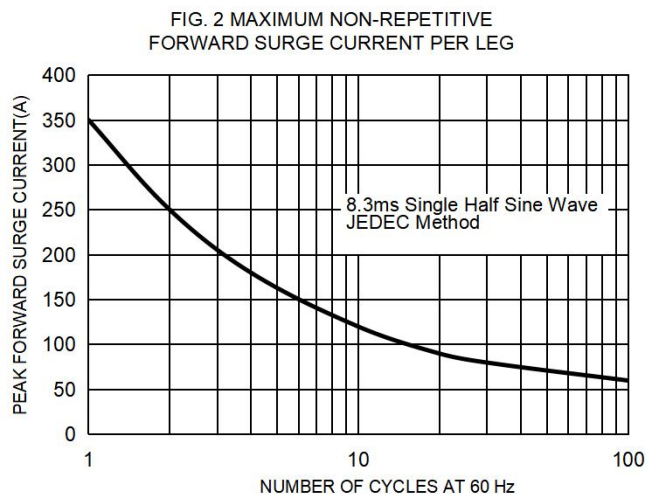
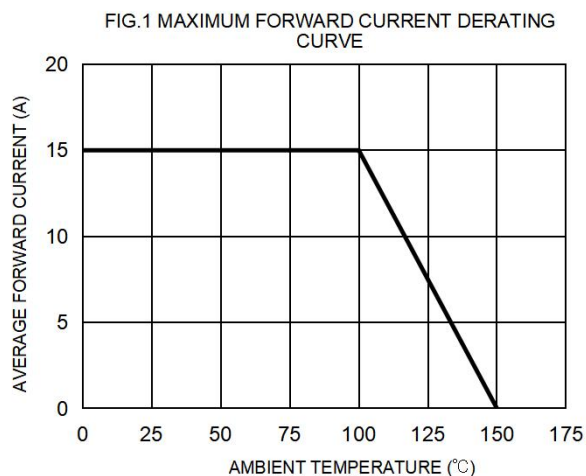
Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

Electrical Characteristics (Per Leg) unless otherwise specified

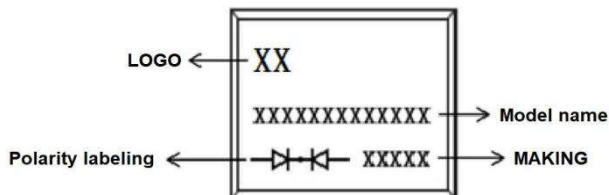
Characteristics		Symbol	Value		Unit
Forward Voltage Drop(Note2)		V _F	Typ.	Max.	V
at I _F =5A	TA=25°C		0.71	-	
	TA=125°C		0.57	-	
at I _F = 10A	TA=25°C		0.77	0.85	
	TA=125°C		0.64	-	
at I _F = 15A	TA=25°C		0.81	0.88	
	TA=125°C		0.68	-	
Maximum Reverse Current at V _R =100V	TA=25°C		I _R	0.6	
	TA=125°C	0.6		-	mA

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

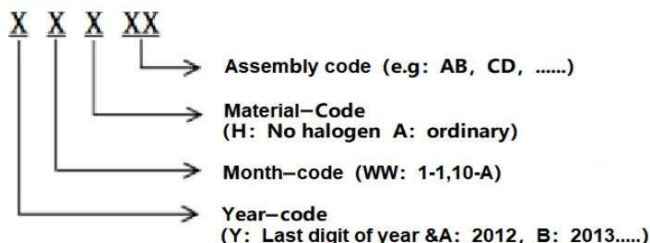
RATINGS AND CHARACTERISTIC CURVES



Marking on the body



MAKING:



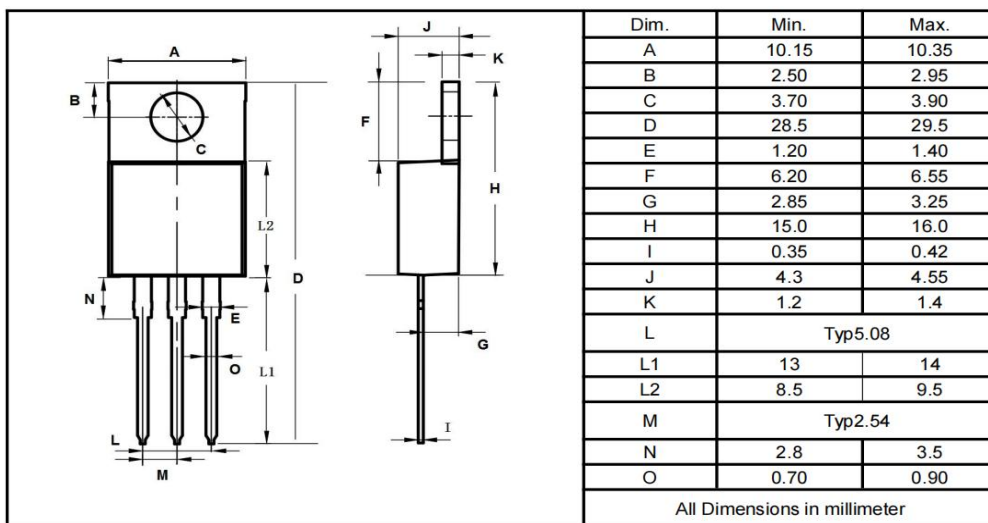
Ordering information

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
MBR30100CT	TO-220AB	0.07oz(1.96g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MBR30100FCT	TO-220F	0.06oz(1.74g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MBR30100DC	TO-263	0.04oz(1.16g)	800 pcs / reel	1600pcs/box 8000pcs/carton
MBR30100CR	TO-262	0.04oz(1.16g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MBR30100CS	TO-252	0.011oz(0.32g)	2500 pcs / reel	5000pcs/box 25000pcs/carton

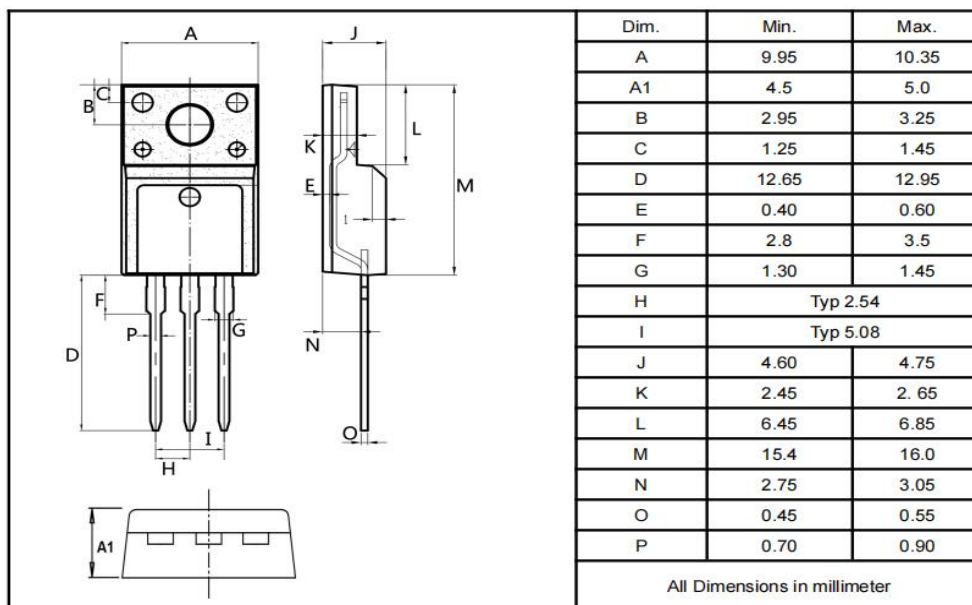
Note: For Halogen Free molding compound, add "H" suffix to part number above.

Package Outline Dimensions millimeters

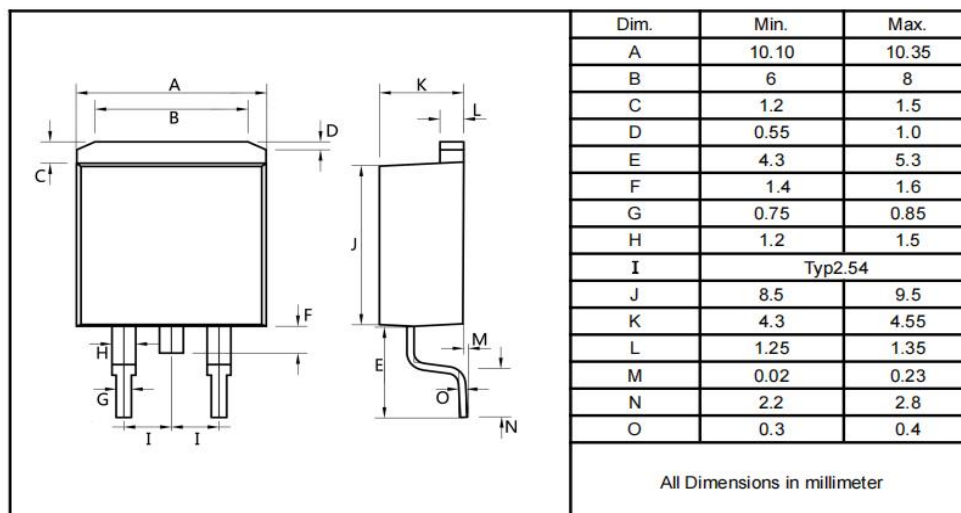
TO-220AB



TO-220F



TO-263



Package Outline Dimensions millimeters

TO-252

Technical drawing of a TO-252 package showing three views: top, side, and bottom. The top view shows a central body with three pins (1, 2, 3) and a top flange (2). Dimensions include D (total width), D1 (flange width), B (flange height), E (body height), L3 (pin length), B1 (pin 1 width), B2 (pin 2 width), and B3 (pin 3 width). The side view shows the profile of the package with dimensions A (flange thickness), C (body thickness), L1 (total height), L2 (body height), and B3 (pin 3 width). The bottom view shows the pin layout with dimensions E1 (pin 1 width) and E2 (pin 2 width).

Dim.	Min.	Max.
A	2.1	2.5
B	1.3	1.7
C	0.4	0.6
D	6.4	6.7
D1	5.1	5.5
E	5.5	6.0
E1	Typ2.3	
E2	Typ4.6	
B1	0.6	0.8
B2	0.75	0.95
B3	0.35	0.45
L1	10	11
L2	1.4	1.6
L3	0.75	0.95

All Dimensions in millimeter

TO-262

Top view of the TO-262 package. Dimensions shown: E (width of the main body), F (width of the top flange), G (thickness of the top flange), D (height of the main body), B1 (width of the lead), B (width of the lead at the base), and e (pitch between leads).

Side view of the TO-262 package. Dimensions shown: A (width of the main body), A1 (width of the lead), C1 (height of the lead), H (total height), L (height of the main body), and C (height of the lead at the base).

Dim.	Min.	Max.
A	4.4	4.6
A1	2.4	2.6
B	0.75	0.85
B1	1.2	1.4
C	0.35	0.42
C1	1.25	1.35
D	8.5	9.5
E	10.15	10.35
H	23	25
L	13	14
L1	2.8	3.5
L2	1.2	1.5

All Dimensions in millimeter