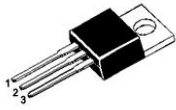
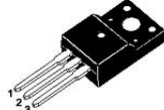


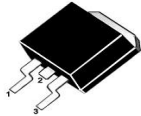
SCHOTTKY BARRIER RECTIFIER



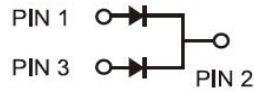
TO-220AB/CT



TO-220F/FCT



TO-263/DC



FEATURES

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



APPLICATIONS

Low VF Schottky barrier rectifier are designed for high frequency, miniature switched mode power supplies such as adapters ,lighting and on-board DC/DC conerters

Primary Characteristic

I_O	2*20A
V_{RRM}	45V
I_{FSM}	420A
V_F	0.52V
T_{jmax}	150°C
Assembly code	LP

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-

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

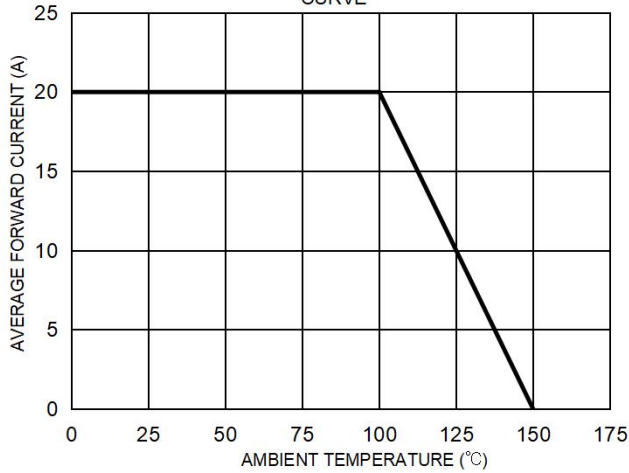
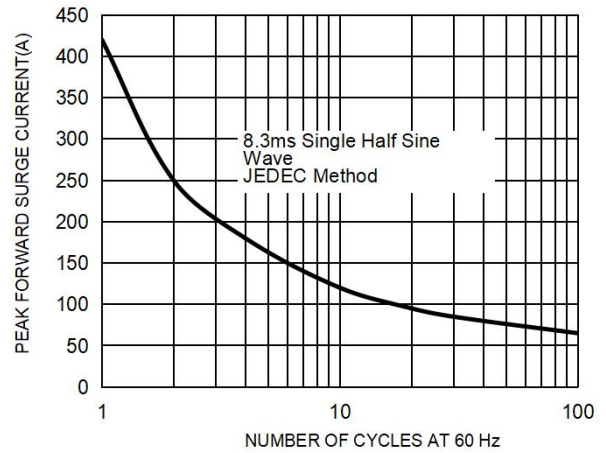
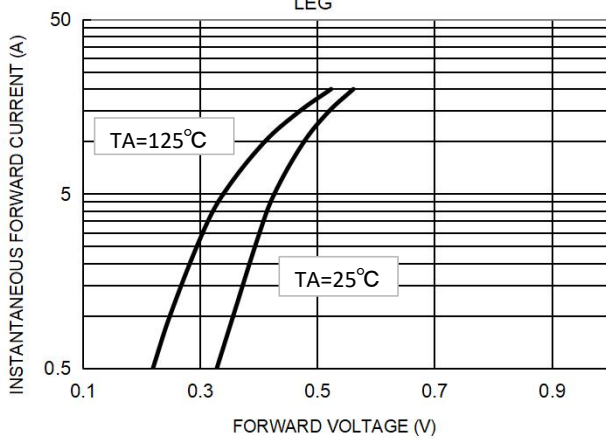
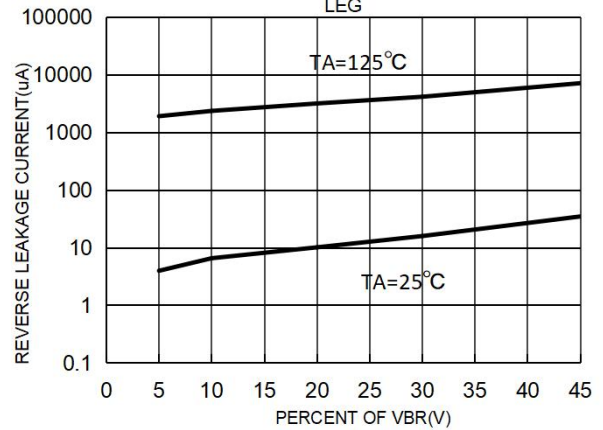
Characteristics	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	45	V
Working Peak Reverse Voltage	V_{RWM}	45	V
Maximum DC Blocking Voltage	V_{DC}	45	V
Maximum Average Forward Rectified Current	I_O	20	A
Per Leg		40	
Total			
Peak Forward Surge Current,8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	420	A
Operating Temperature Range	T_J	150	°C
Storage Temperature Range	T_{STG}	-40 to +150	°C
Typical Thermal Resistance (Note1)	$R_{\theta JC}$		°C/W
TO-220AB,TO-263		2	
TO-220F		4	

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

Electrical Characteristics (Per Leg) unless otherwise specified

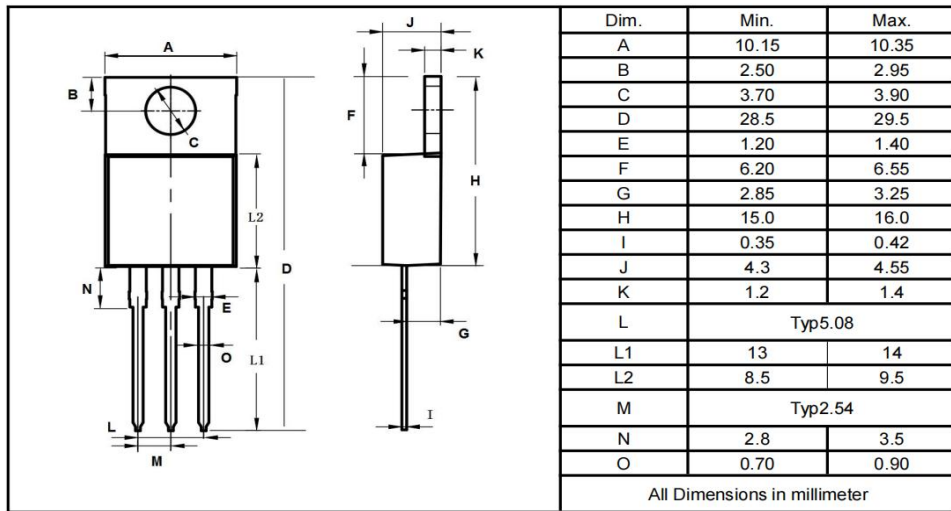
Characteristics		Symbol	Value		Unit
Forward Voltage Drop(Note2)		V _F	Typ.	Max.	V
at I _F =5A	TA=25°C		0.42	-	
	TA=125°C		0.33	-	
at I _F =10A	TA=25°C		0.47	-	
	TA=125°C		0.41	-	
at I _F =15A	TA=25°C		0.52	0.57	
	TA=125°C		0.47	-	
at I _F =20A	TA=25°C		0.56	0.62	
	TA=125°C		0.52	-	
Maximum Reverse Current at V _R =45V		I _R	30	100	μA
			7	-	mA

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

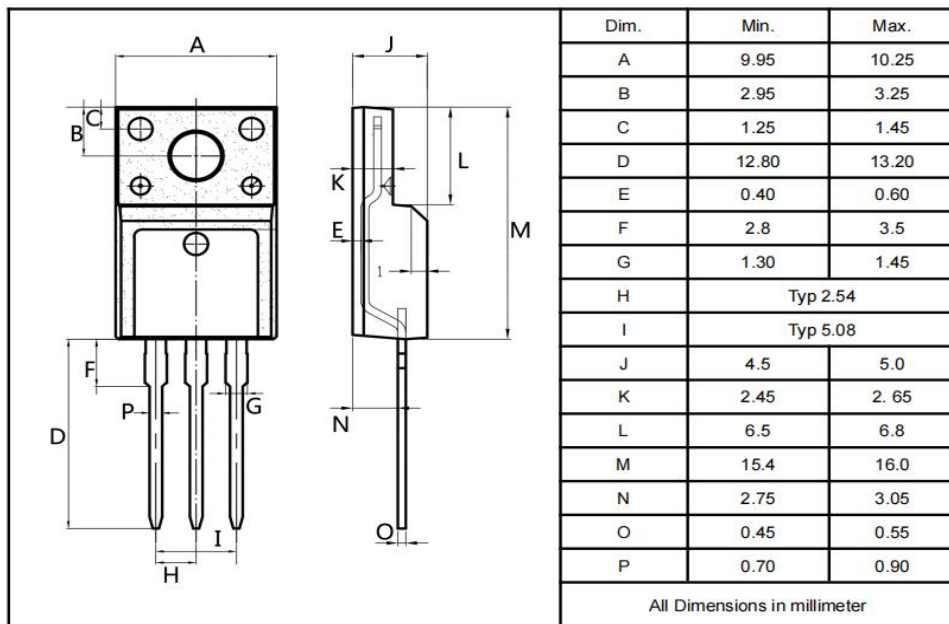
RATINGS AND CHARACTERISTIC CURVES
FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

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

FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG


Package Outline Dimensions millimeters

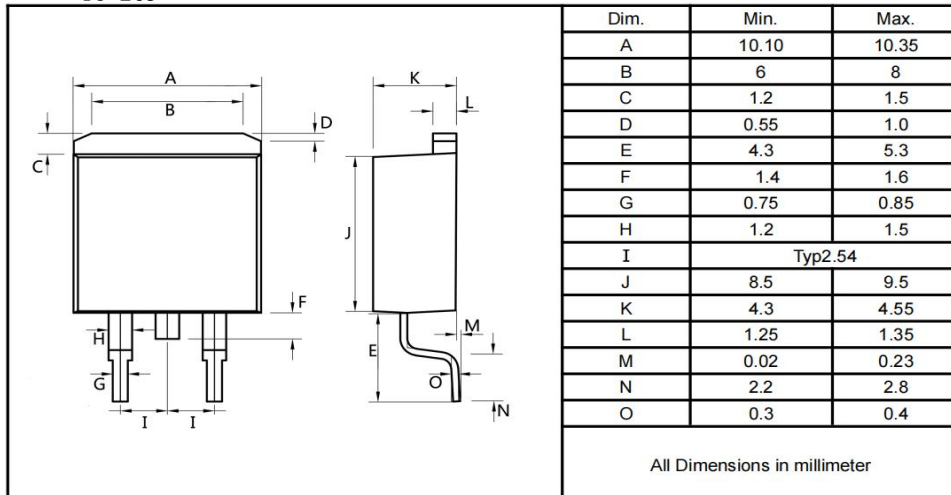
TO-220AB



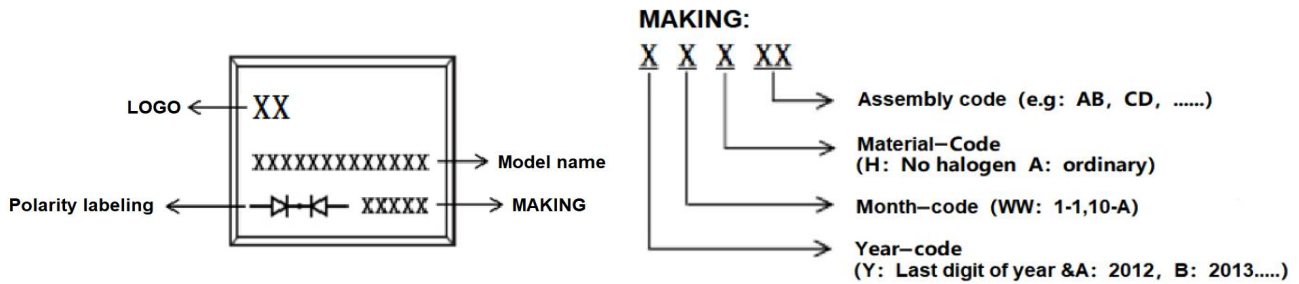
TO-220F



TO-263



Marking on the body

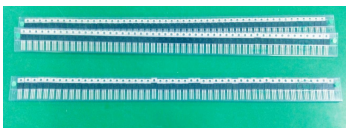
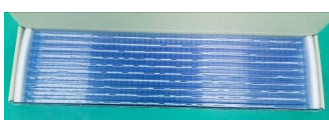


Ordering information

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
MBR4045CT-B	TO-220AB	0.07oz(1.96g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MBR4045FCT-B	TO-220F	0.06oz(1.74g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MBR4045DC-B	TO-263	0.04oz(1.16g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MBR4045DC-B-R	TO-263	0.04oz(1.16g)	800 pcs / reel	1600pcs/box 8000pcs/carton

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

packing instruction

PKG	最小包装	内盒	外箱
TO-220AB TO-220F TO-263			
	50pcs/管	1000pcs/盒	5000pcs/箱
TO-263-R			
	800pcs/盘	1600pcs/盒	8000pcs/箱

Notice

1. All product, product specifications and data are subject to change without notice to improve. The right to explain is owned by LINGXUN electronics company.
2. Confirm that operation temperature is within the specified range described in the product specification. Avoid applying power exceeding normal rated power;
 exceeding the power rating under steady-state loading condition may negatively affect product performance and reliability.
3. LINGXUN electronics shall not be in any way responsible or liable for failure induced under deviant condition from what is defined in this document.