

### SCHOTTKY BARRIER RECTIFIER





TO-220AB/CT



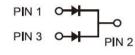
TO-220F/FCT





TO-263/DC TO-252/CS





TO-251/D

#### **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				
Ι <sub>Ο</sub>	2*15A			
$V_{RRM}$	60V			
I <sub>FSM</sub>	360A			
$V_{F}$	0.64V			
T <sub>J</sub> max	150℃			

### **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  $^{\circ}$ C maximum,10s per JESD 22-B106

Maximum Ratings (Per L	eg) at Ta=25	<u>°C unless</u>	otherwise specified	
Characteristics		Symbol	Value	Unit
Maximum Repetitive Peak Reverse Volta	age	$V_{RRM}$	60	V
Working Peak Reverse Voltage		$V_{RWM}$	60	V
Maximum DC Blocking Voltage		$V_{DC}$	60	V
Maximum Average Forward Rectified	Per Leg		15	А
Current	Total	l <sub>o</sub>	30	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)		I <sub>FSM</sub>	360	А
Operating Temperature Range		Τ <sub>J</sub>	150	°C
Storage Temperature Range		T <sub>STG</sub>	-40 to +150	°C
Typical Thermal Resistance (Note1)				
TO-220AB,TO-263,TO-252,TO-251		R <sub>0 JC</sub>	2	°C/W
TO-220F			4	
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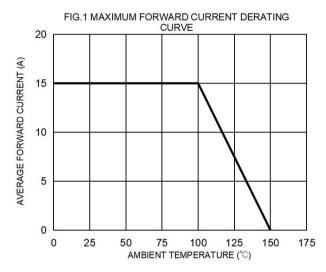
Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

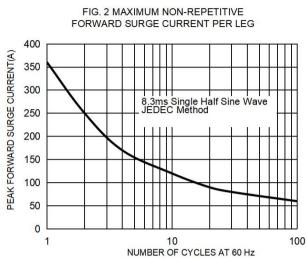
Electrical Characteristics (Per Leg) unless otherwise specified					
Characteristics		Symbol	Value		Unit
Forward Voltage Drop(Note2)			Тур.	Max.	
at I <sub>F</sub> =5A	TA=25°C	V <sub>F</sub>	0.53	-	
	TA=125°C		0.48		
at I <sub>F</sub> =10A	TA=25°C		0.65	0.71	V
	TA=125°C		0.58	-	
at I <sub>F</sub> =15A	TA=25°C		0.75	0.77	
	TA=125°C		0.64	•	
Maximum Reverse Current at V <sub>R</sub> =60V	TA=25°C	I <sub>R</sub>	8	20	μA
	TA=125°C		2.8	•	mA

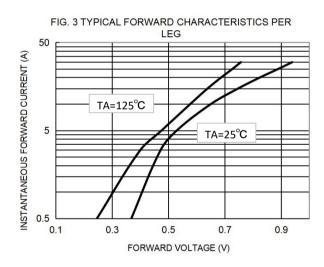
Note2:Pulse test: 300 µs pulse width, 1 % duty cycle

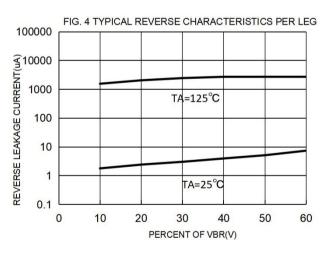


## RATINGS AND CHARACTERISTIC CURVES



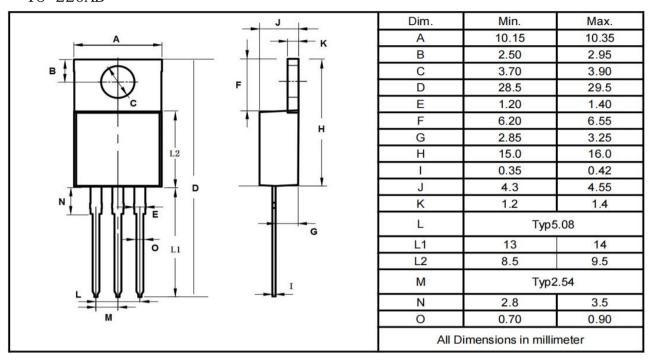




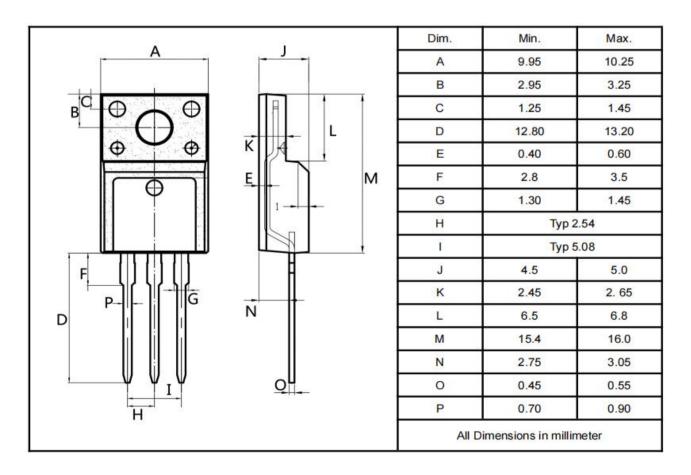


## Package Outline Dimensions millimeters

TO-220AB

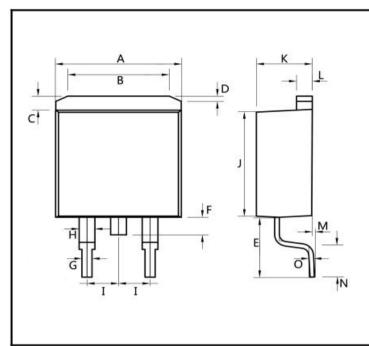


TO-220F



# Package Outline Dimensions millimeters

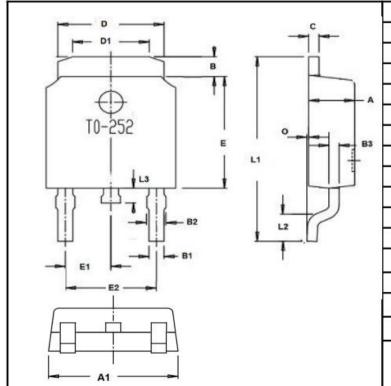
TO-263



Dim.	Min.	Max.	
Α	10.10	10.35	
В	6	8	
С	1.2	1.5	
D	0.55	1.0	
E	4.3	5.3	
F	1.4	1.6	
G	0.75	0.85	
Н	1.2	1.5	
I	Typ2.54		
J	8.5	9.5	
K	4.3	4.55	
L	1.25	1.35	
M	0.02	0.23	
N	2.2	2.8	
0	0.3	0.4	

All Dimensions in millimeter

TO-252

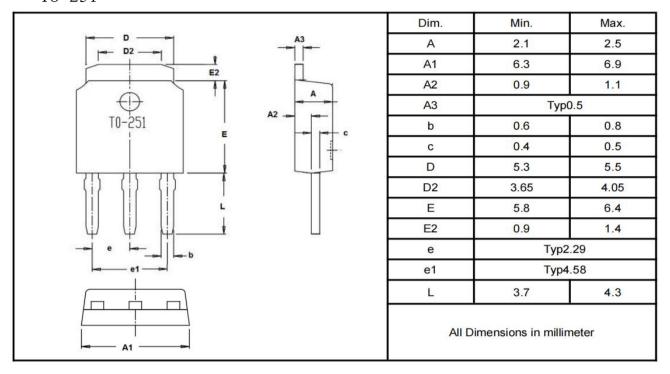


Dim.	Min.	Max	
Α	2.1	2.5	
A1	6.3	6.9	
В	0.95	1.55	
B1	0.6	0.8	
B2	0.75	0.95	
С	Тур	0.5	
D	5.3	5.5	
D1	3.65	4.05	
E	5.8	6.4	
E1	Typ2.3		
E2	Typ4.6		
0	0 0.1		
L1	9 11		
L2	Typ1.5		
L3	0.7	1.0	

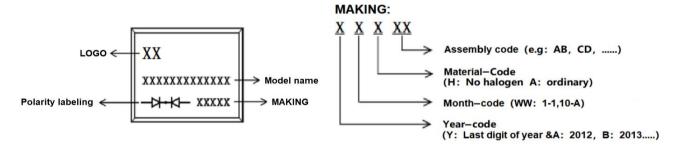
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# Package Outline Dimensions millimeters

TO-251



### Marking on the body



Ordering information					
Part Number	Package	Unit Weight	Base Quantity	Delivery mode	
MBR3060CT	TO-220AB	0.07oz(1.96g)	50 pcs / tube	1000pcs/box 5000pcs/carton	
MBR3060FCT	TO-220F	0.06oz(1.74g)	50 pcs / tube	1000pcs/box 5000pcs/carton	
MBR3060DC	TO-263	0.04oz(1.16g)	50 pcs / tube	1000pcs/box 5000pcs/carton	
MBR3060DC-R	TO-263	0.04oz(1.16g)	800 pcs / reel	1600pcs/box 8000pcs/carton	
MBR3060CS	TO-252	0.011oz(0.32g)	2500 pcs / reel	5000pcs/box 25000pcs/carton	
MBR3060D	TO-251	0.011oz(0.32g)	80 pcs / tube	4000pcs/box 24000pcs/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			<b>2</b> 日本の 20 日本の 20 日本の 20 日本の	
	50pcs/管	1000pcs/盒	5000pcs/箱	
TO-263-R				
	800pcs/盘	1600pcs/盒	8000pcs/箱	
TO-252				
	2500pcs/盘	5000pcs/盒	25000pcs/箱	
TO-251				
	80pcs/管	4000pcs/盒	24000pvs/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.