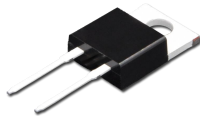


ULTRAFAST RECOVERY RECTIFIERS


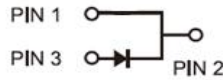
TO-220AC/



TO-220FAC/F



TO-263/D


FEATURES

- High speed switching capability
- High current capability
- High forward surge capability
- Low power losses, High efficiency
- High reliability
- For use in low voltage, high frequency inverters


**RoHS
COMPLIANT**
APPLICATIONS

Fast recovery diode, mainly used for rectification, used in high-power equipment, The express and ultrafast recovery diodes are suitable for high frequency and ultra high frequency circuits, respectively

Primary Characteristic

I_O	20A
V_{RRM}	1200V
I_{FSM}	230A
V_F	1.73V
T_{rr}	48ns
T_{jmax}	150°C

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

Maximum Ratings at Ta=25°C unless otherwise specified

Characteristics	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1200	V
Working Peak Reverse Voltage	V_{RWM}	1200	V
Maximum DC Blocking Voltage	V_{DC}	1200	V
Maximum Average Forward Rectified Current	I_O	20	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	230	A
Operating Temperature Range	T_J	150	°C
Storage Temperature Range	T_{STG}	-40 to +150	°C
Typical Thermal Resistance (Note1) TO-220AC, TO-263	$R_{\theta JC}$	2	°C/W
TO-220FAC		4	

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

Electrical Characteristics unless otherwise specified

Characteristics		Symbol	Value		Unit
Forward Voltage Drop(Note2)		V_F	Typ.	Max.	V
at $I_F=5A$	TA=25°C		1.38	-	
	TA=125°C		1.12	-	
at $I_F=15A$	TA=25°C		1.79	-	
	TA=125°C		1.57	-	
at $I_F=20A$	TA=25°C		1.93	2.2	
	TA=125°C		1.73	-	
Maximum Reverse Current at $V_R=1200V$	TA=25°C	I_R	0.2	10	μA
	TA=125°C		5	-	μA
Maximum Reverse Recovery Time at $I_F=0.5A, I_R=1A,$		T_{rr}	48	75	ns

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

RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

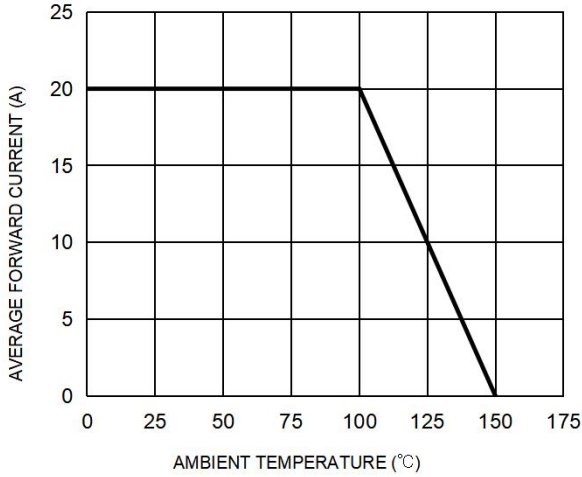


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

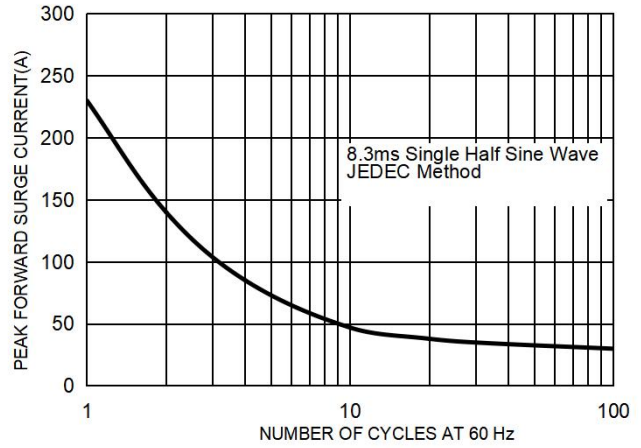


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

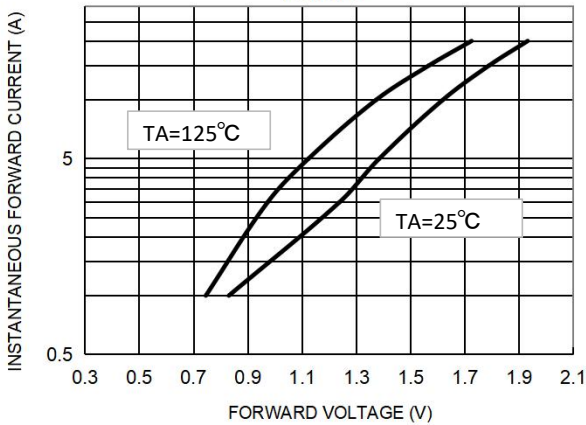
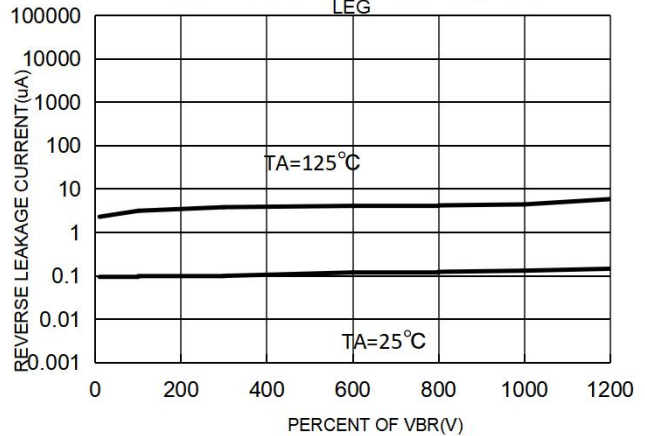
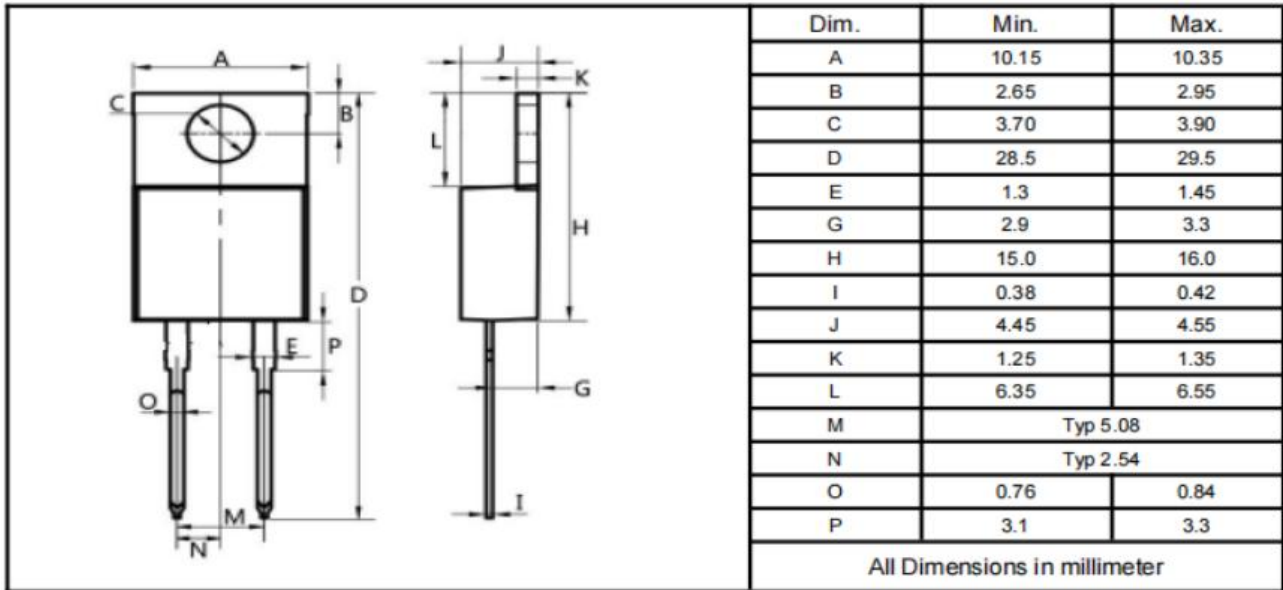
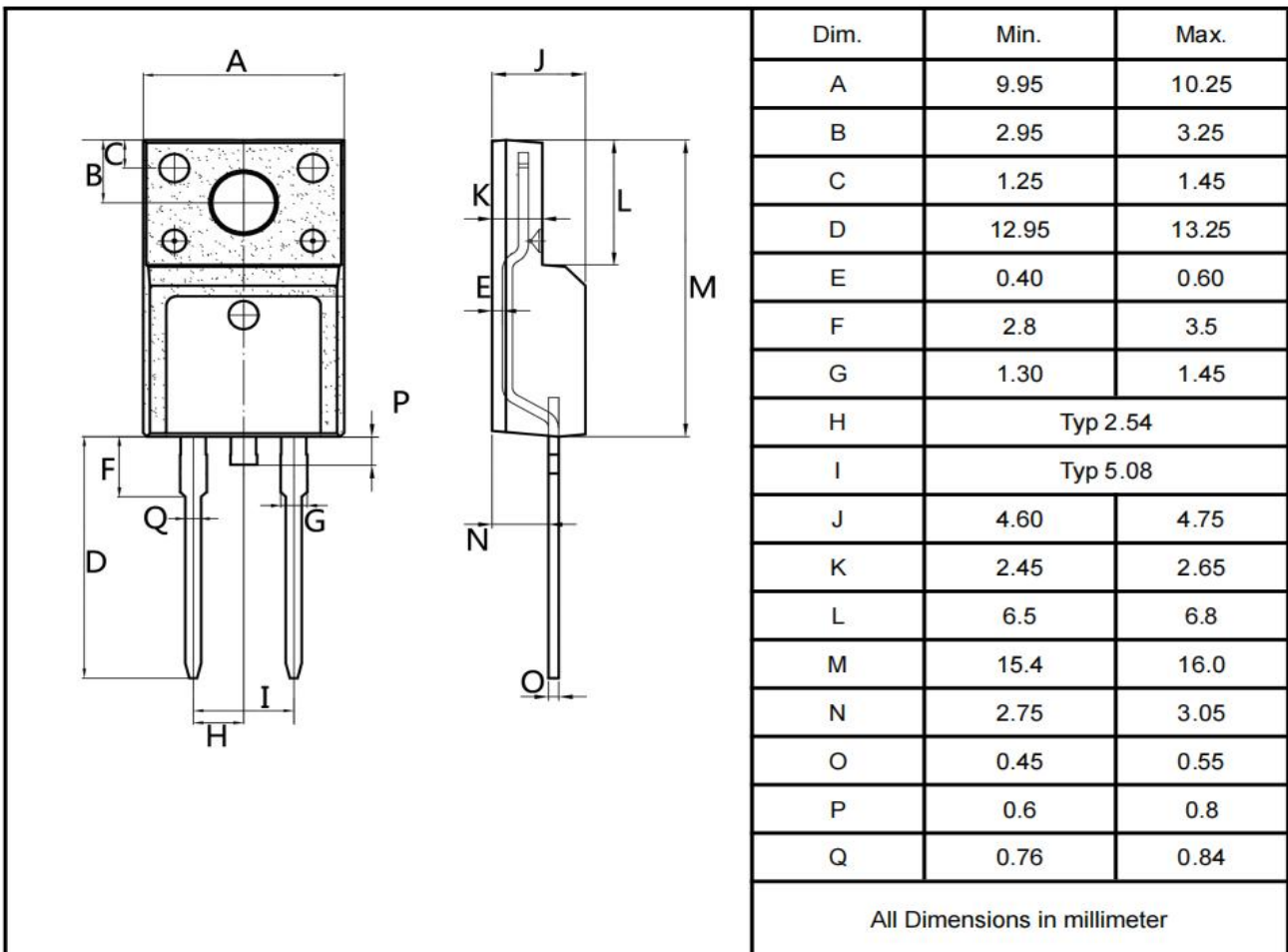


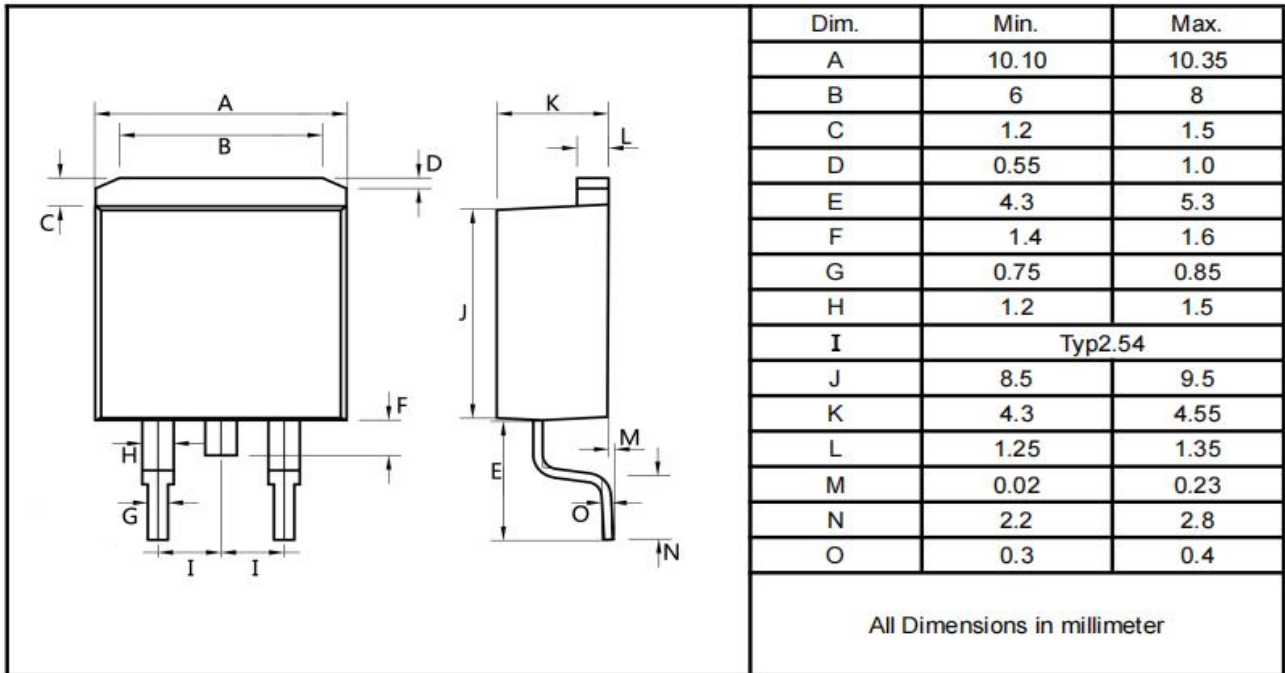
FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



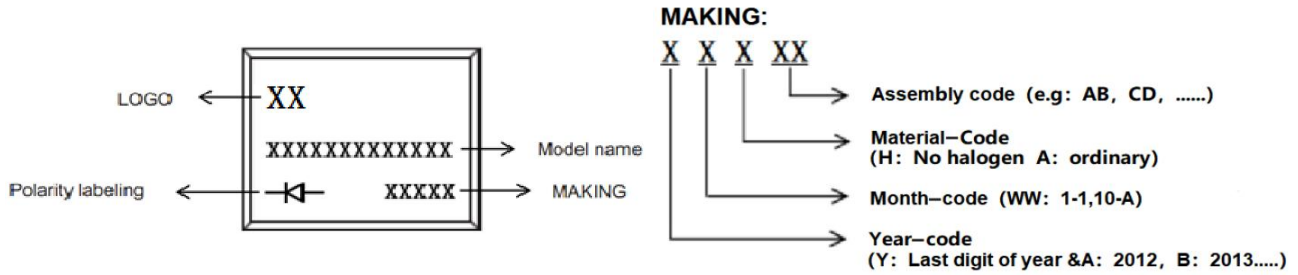
Package Outline Dimensions millimeters
TO-220AC

TO-220FAC


Package Outline Dimensions millimeters

TO-263



Marking on the body

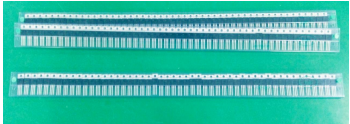
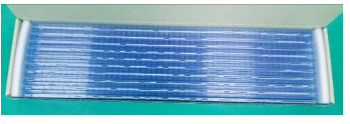






Ordering information

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
MUR20120	TO-220AC	0.067oz(1.9g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MUR20120F	TO-220FAC	0.06oz(1.7g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MUR20120D	TO-263	0.04oz(1.16g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MUR20120D-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-220AC TO-220FAC 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.