

ULTRAFAST RECOVERY RECTIFIERS
Reverse Voltage - 1200 V
Forward Current - 20 A
FEATURES

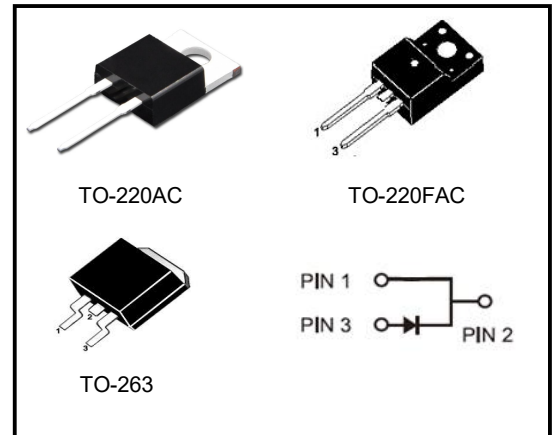
- ◆High speed switching capability
- ◆High current capability
- ◆High forward surge capability
- ◆Low power losses, High efficiency
- ◆For use in low voltage, high frequency inverters

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


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}	840	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 _{θJC}	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

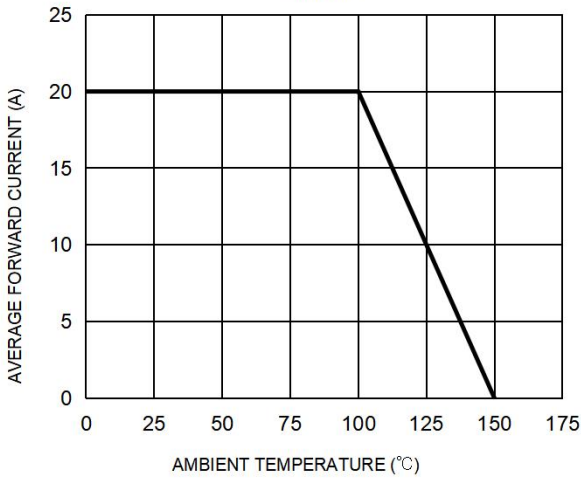


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

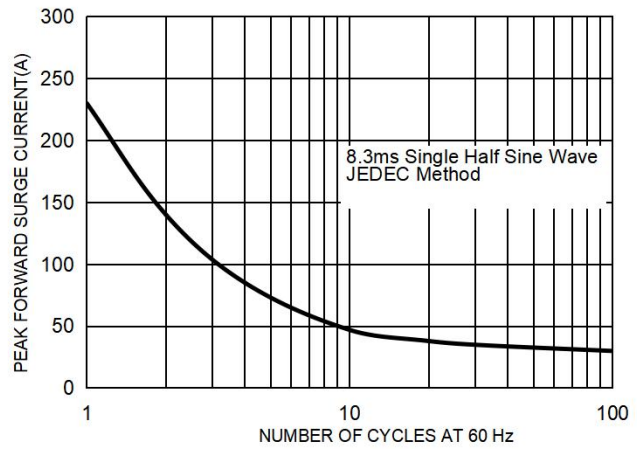


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

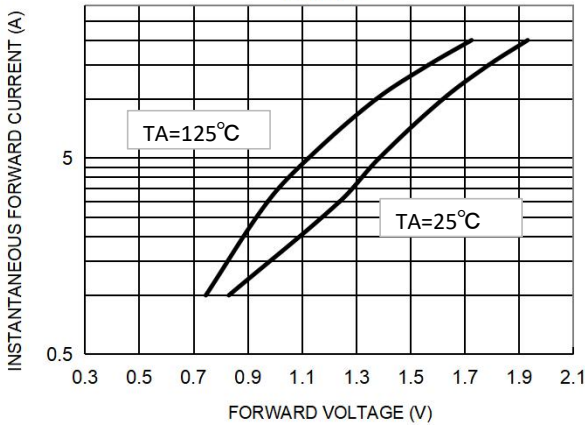
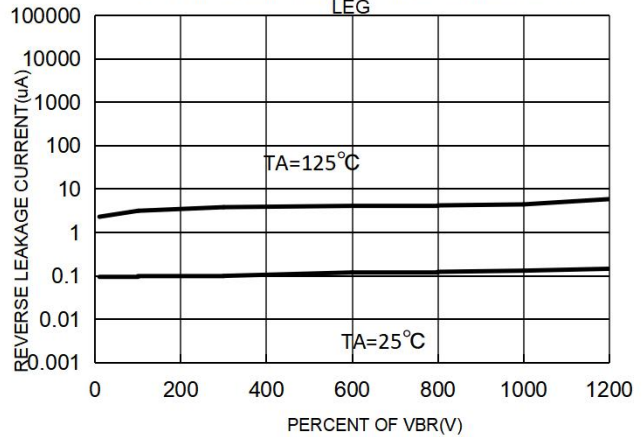
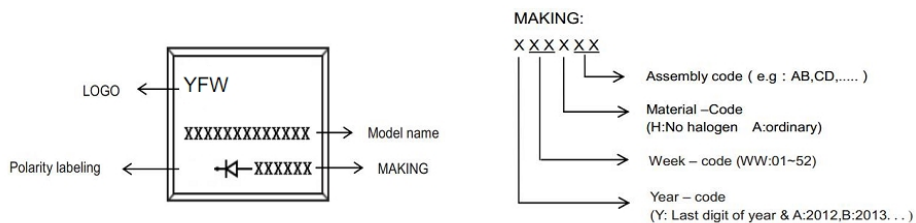


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



Marking on the body



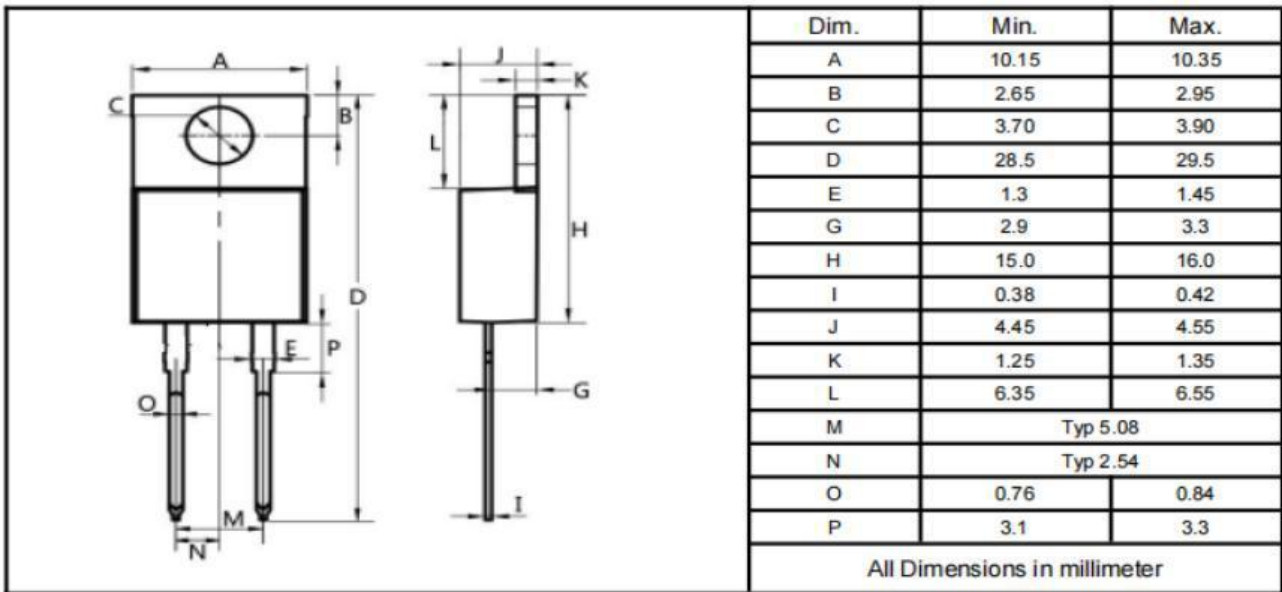
Ordering information

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
MUR20120AC	TO-220AC	0.067oz(1.9g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MUR20120FAC	TO-220FAC	0.06oz(1.7g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MUR20120DC-G	TO-263	0.04oz(1.16g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MUR20120DC	TO-263	0.04oz(1.16g)	800 pcs / reel	1600pcs/box 8000pcs/carton

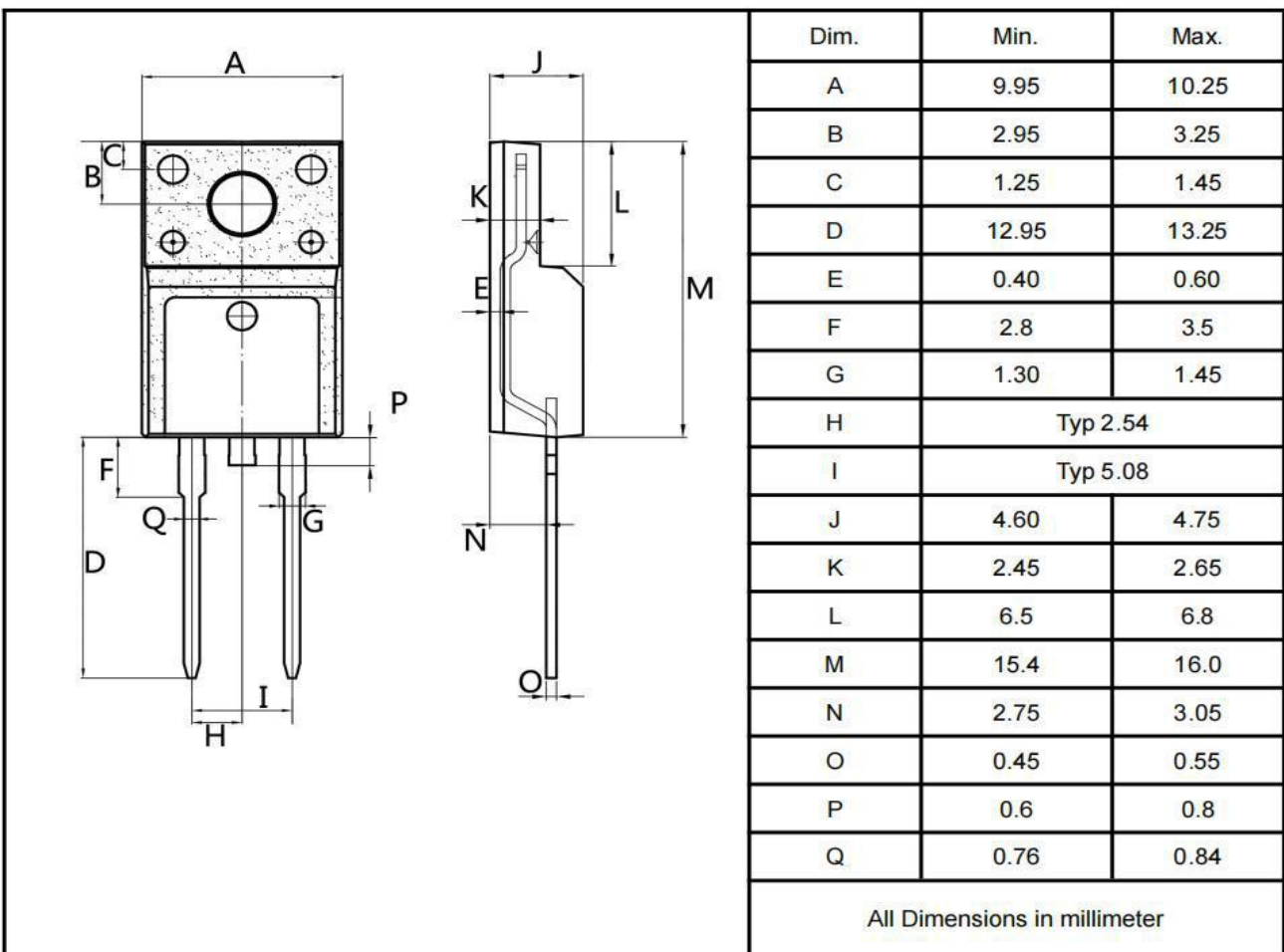
Note: For Halogen Free molding compound, add "H" suffix to part number above.

Package Outline Dimensions millimeters

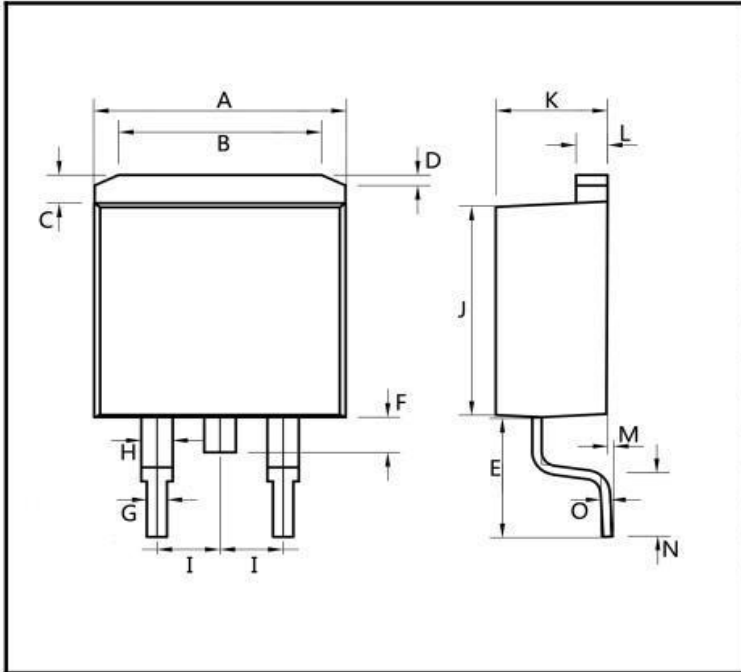
TO-220AC



TO-220FAC



TO-263



Dim.	Min.	Max.
A	10.10	10.35
B	6	8
C	1.2	1.5
D	0.55	1.0
E	4.3	5.3
F	1.4	1.6
G	0.75	0.85
H	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
O	0.3	0.4
All Dimensions in millimeter		