

**ULTRAFST RECOVERY RECTIFIERS**

**Reverse Voltage - 400 V**

**Forward Current - 30 A**

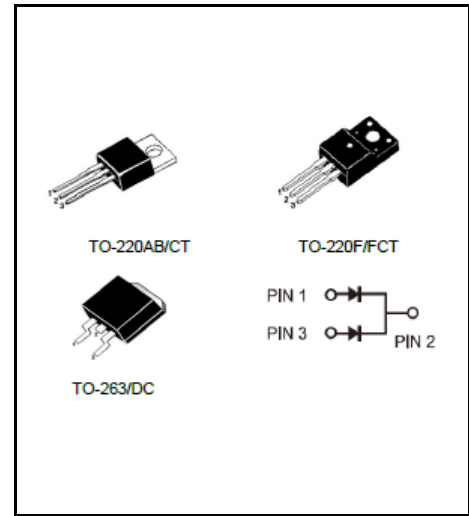


**FEATURES**

- ◆High speed switching capability
- ◆High current capability
- ◆High forward surge capability
- ◆Low power losses, High efficiency
- ◆For use in low voltage, high frequency inverters
- ◆Lead free in comply with EU RoHS 2011/65/EU directives

**MECHANICAL DATA**

- ◆Case: TO-220AB/CT TO-220F/FCT TO-263/DC
- ◆Solder bath temperature 275°C maximum, 10s per JESD22-106



**Primary Characteristic**

<b>I<sub>o</sub></b>	<b>2*15A</b>
<b>V<sub>RRM</sub></b>	<b>400V</b>
<b>I<sub>FSM</sub></b>	<b>320A</b>
<b>V<sub>F</sub></b>	<b>0.91V</b>
<b>T<sub>J</sub> Max</b>	<b>150°C</b>

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

Parameter	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	<b>V<sub>RRM</sub></b>	400	<b>V</b>
Maximum RMS voltage	<b>V<sub>RMS</sub></b>	400	<b>V</b>
Maximum DC Blocking Voltage	<b>V<sub>DC</sub></b>	400	<b>V</b>
Maximum Average Forward Rectified Current	Per Leg	15	<b>A</b>
	Total	30	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave	<b>I<sub>FSM</sub></b>	320	<b>A</b>
Operating Temperature Range	<b>T<sub>J</sub></b>	150	<b>°C</b>
Storage Temperature Range	<b>T<sub>STG</sub></b>	-40 ~ +150	<b>°C</b>
Typical Thermal Resistance (Note1) TO-220AB/CT TO-220F/FCT TO-263/DC	<b>R<sub>θJA</sub> R<sub>θJC</sub></b>	2/4	<b>°C/W</b>

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

**Electrical Characteristics (Per Leg) unless otherwise specified**

Characteristics	Symbols	Value		Units	
		Typ	Max		
Forward Voltage Drop(Note2) at IF=3A at IF=5A at IF=15A	<b>V<sub>F</sub></b>	TA=25°C	0.84	-	<b>V</b>
		TA=125°C	0.68	-	
		TA=25°C	0.90	-	
		TA=125°C	0.74	-	
		TA=25°C	1.06	1.39	
		TA=125°C	0.90	-	
Maximum Reverse Current at V <sub>R</sub> =400V	<b>I<sub>R</sub></b>	TA=25°C	0.1	1	<b>uA</b>
		TA=25°C	10	-	<b>uA</b>
Maximum Reverse Recovery Time at IF=0.5A, IR=1A, IRR=0.25A	<b>T<sub>RR</sub></b>	-	35	<b>nS</b>	

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

**RATINGS AND CHARACTERISTIC CURVES**

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

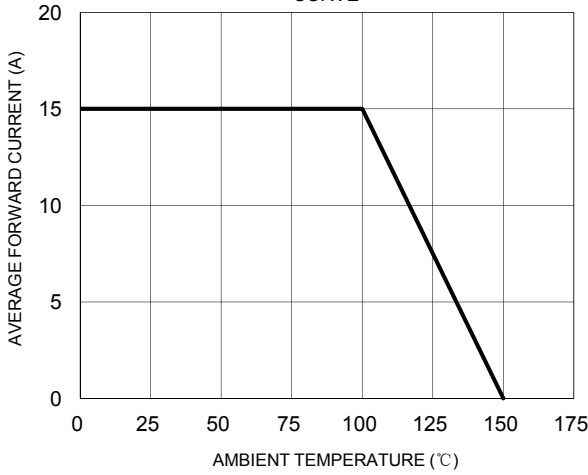


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

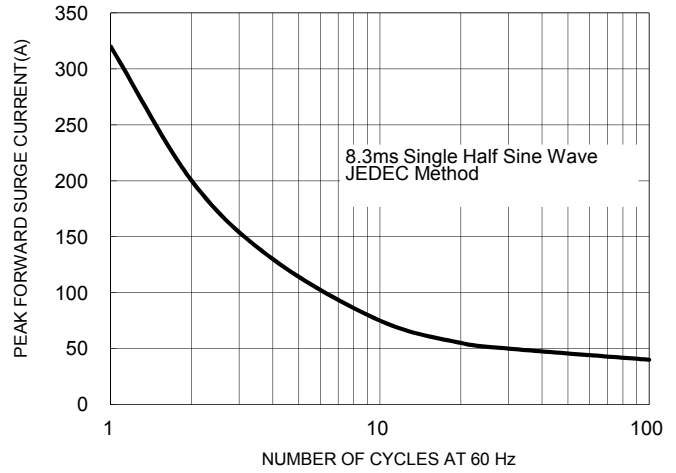


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

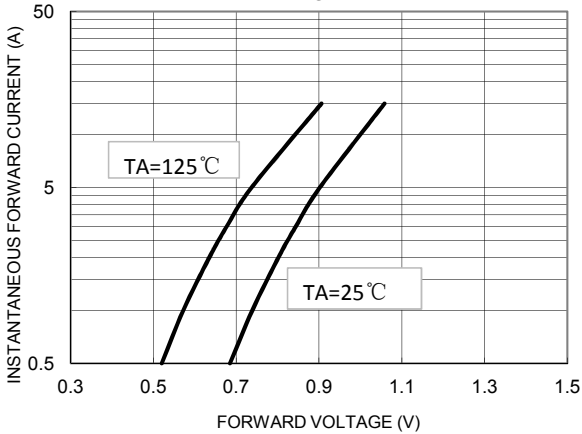
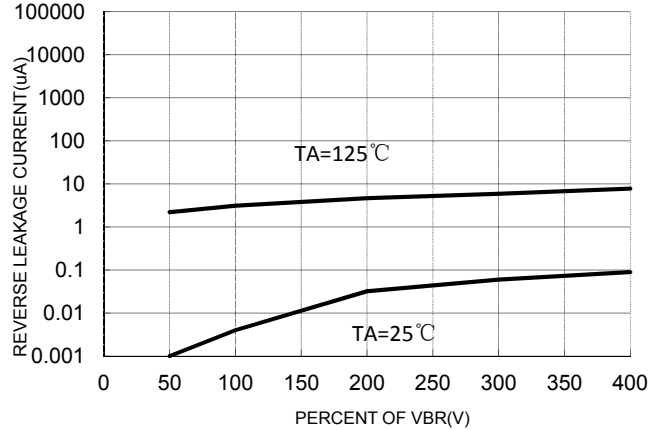
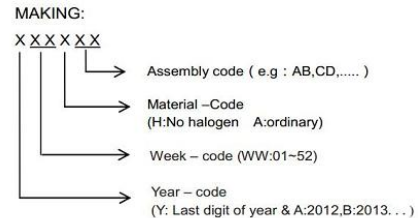


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



**Marking on the body**



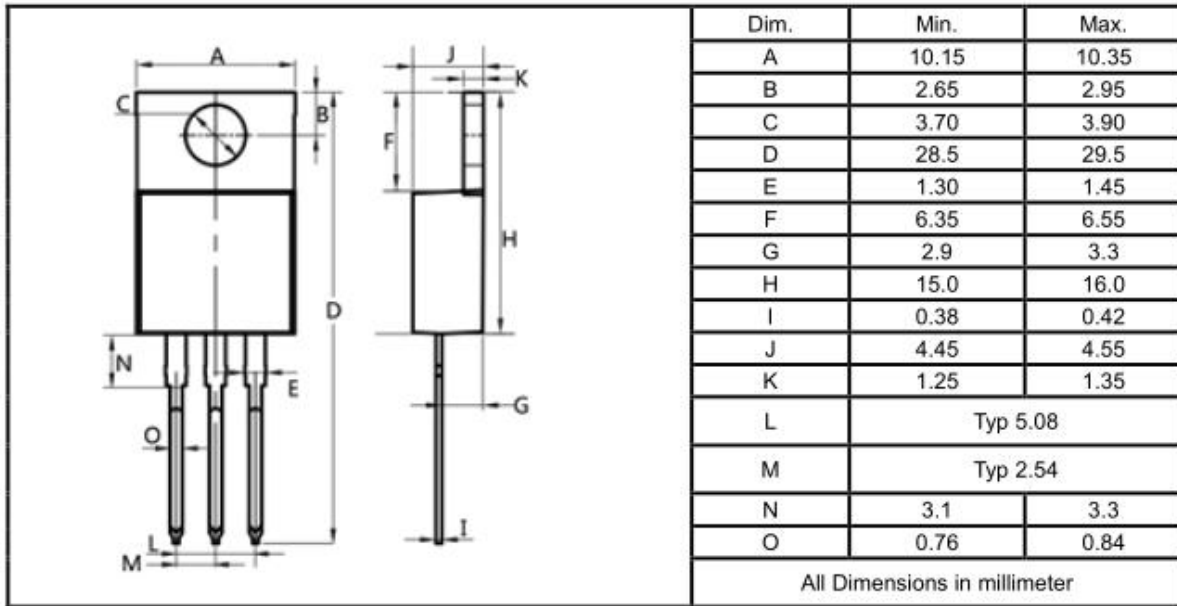
**Ordering information**

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
MUR3040CT	TO-220AB	0.07oz(1.96g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MUR3040FCT	TO-220F	0.06oz(1.74g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MUR3040DC	TO-263	0.04oz(1.16g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MUR3040DC-R	O-263	0.04oz(1.16g)	800 pcs / reel	800pcs/box4000pcs/carton

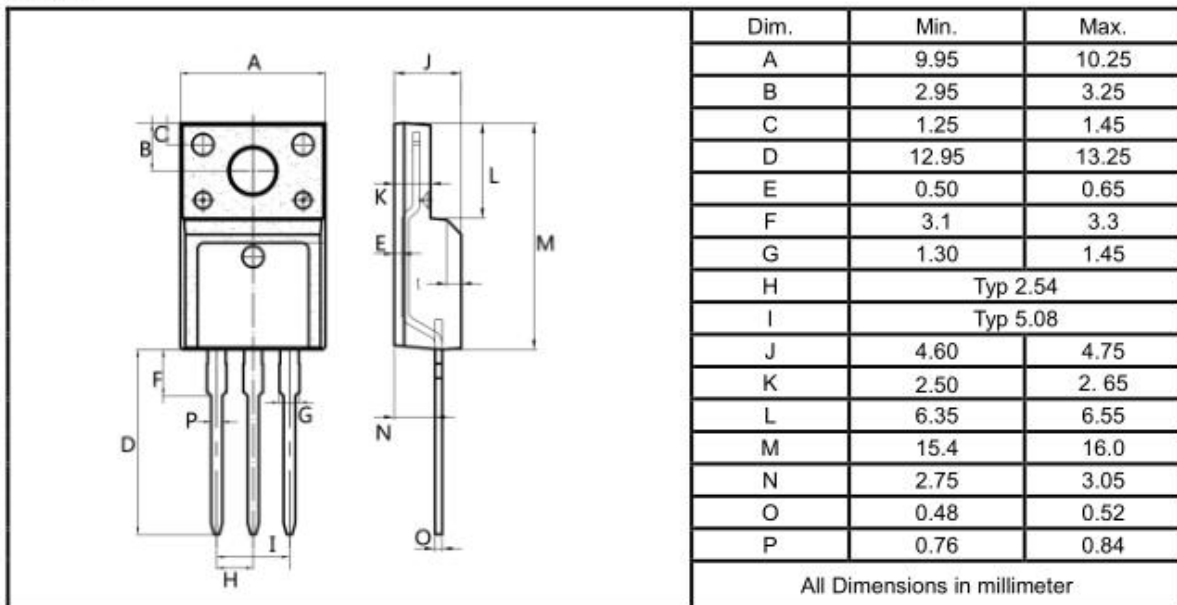
Note: For Halogen Free molding compound, add "H" suffix to part number above.

**Package Outline Dimensions millimeters**

**TO-220AB**



**TO-220F**



TO-263

