

ULTRAFST RECOVERY RECTIFIERS

Reverse Voltage - 400 V

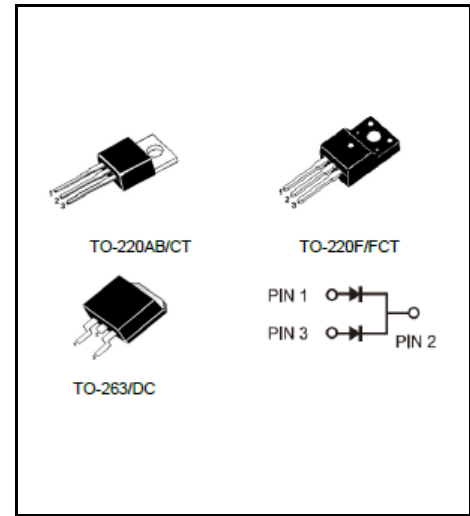
Forward Current - 30 A

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

$I_o$	2*15A
$V_{RRM}$	400V
$I_{FSM}$	320A
$V_F$	0.91V
$T_J \text{ Max}$	150°C

Maximum Ratings (Per Leg) at  $T_a=25^\circ\text{C}$  unless otherwise specified

Parameter	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	400	V
Maximum RMS voltage	$V_{RMS}$	280	V
Maximum DC Blocking Voltage	$V_{DC}$	400	V
Maximum Average Forward Rectified Current	Per Leg	15	A
	Total	30	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave	$I_{FSM}$	320	A
Operating Temperature Range	$T_J$	150	°C
Storage Temperature Range	$T_{STG}$	-40 ~ +150	°C
Typical Thermal Resistance (Note1) TO-220AB/CT TO-220F/FCT TO-263/DC	$R_{\theta JA} R_{\theta JC}$	2/4	°C/W

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 $I_F=3A$ at $I_F=5A$ at $I_F=15A$	$V_F$	TA=25°C	0.84	-	V
		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 $V_R=400V$	$I_R$	TA=25°C	0.1	1	uA
		TA=125°C	10	-	uA
Maximum Reverse Recovery Time at $I_F=0.5A, I_R=1A, I_{RR}=0.25A$	$T_{RR}$	-	-	35	nS

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

**RATINGS AND CHARACTERISTIC CURVES**

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

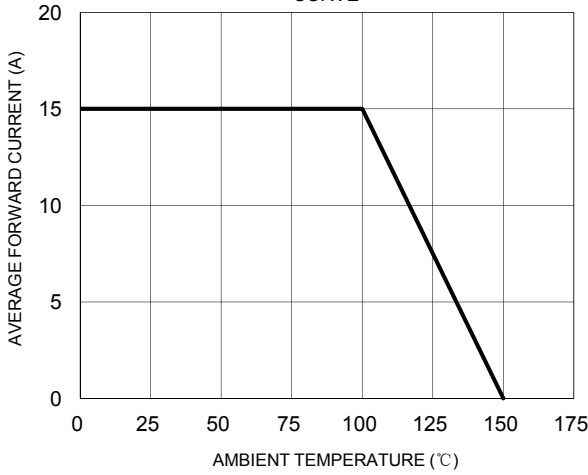


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

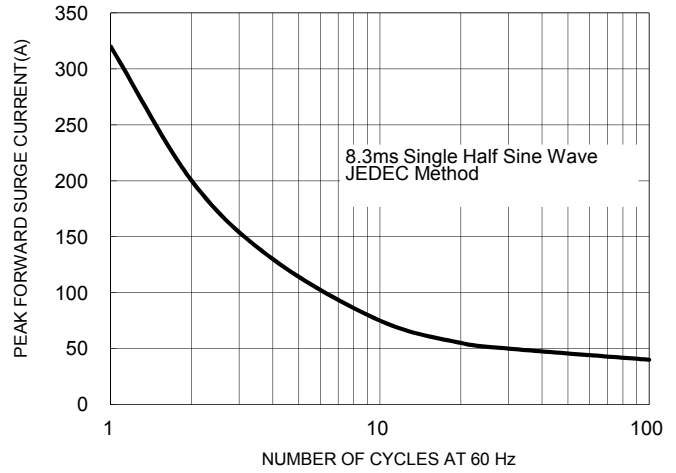


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

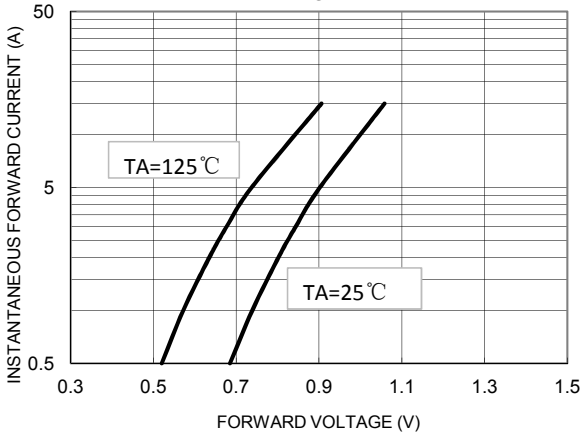
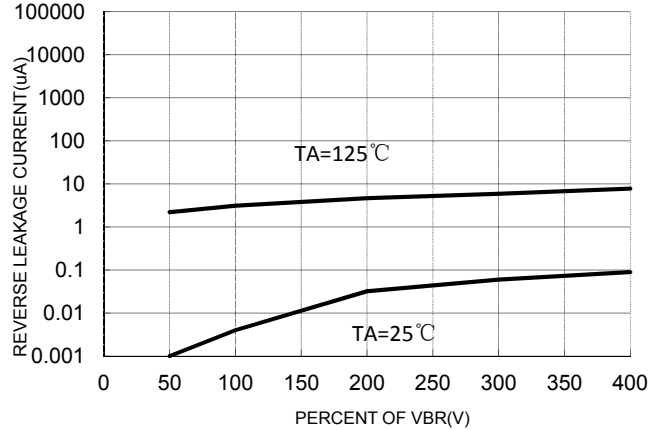
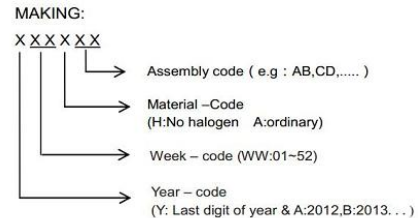


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



**Marking on the body**



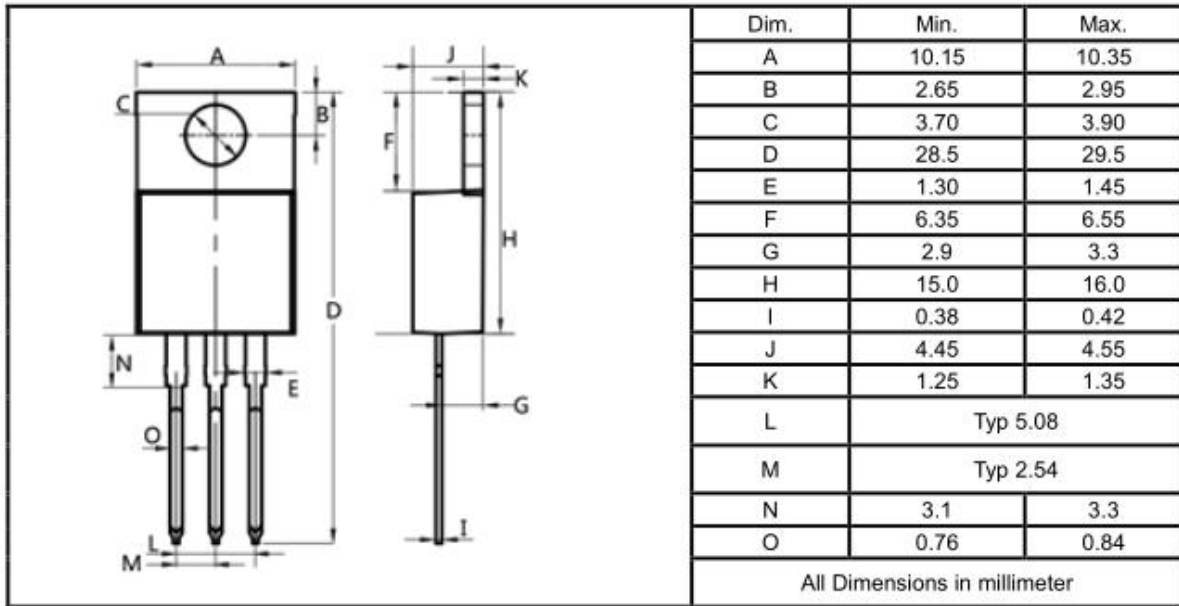
**Ordering information**

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
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-G	TO-263	0.04oz(1.16g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MUR3040DC	TO-263	0.04oz(1.16g)	800 pcs / reel	1600pcs/box4000pcs/carton

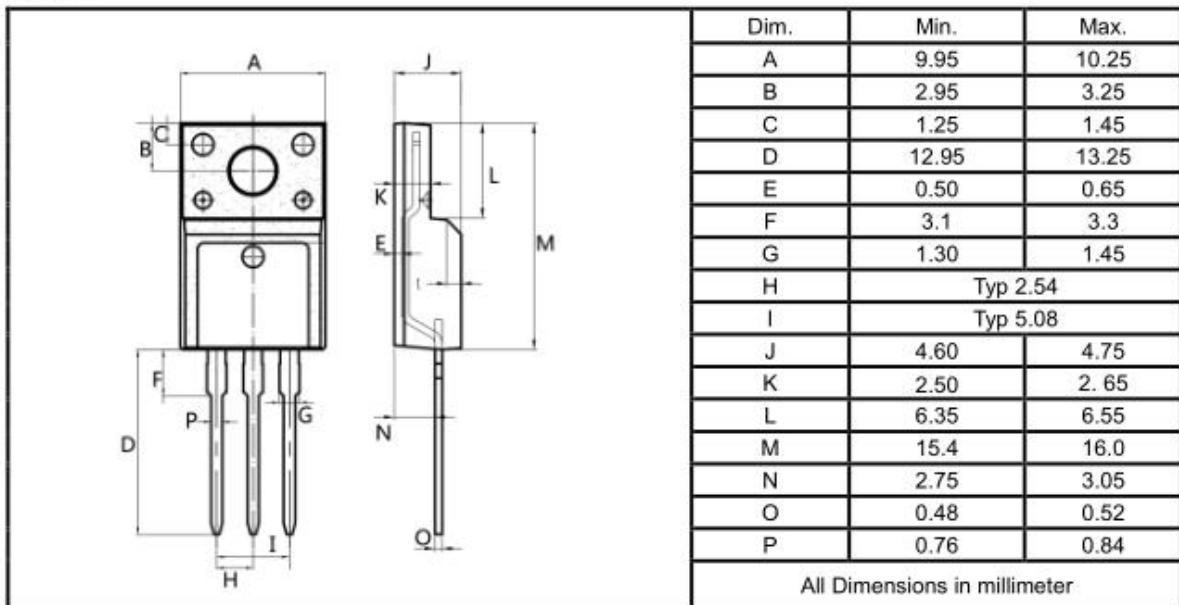
Note: For Halogen Free molding compound, add "H" suffix to part number above.

**Package Outline Dimensions millimeters**

**TO-220AB**



**TO-220F**



TO-263

