

## ULTRAFST RECOVERY RECTIFIERS

**Reverse Voltage -400 V**

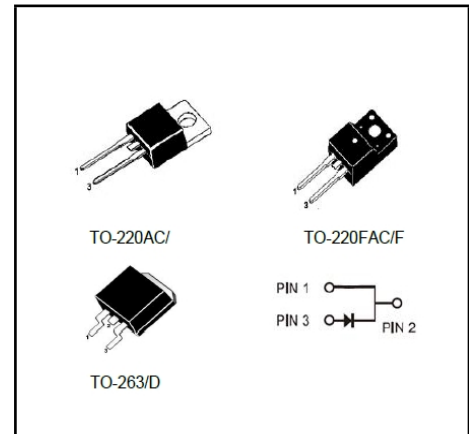
**Forward Current - 15 A**

### 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-220AC TO-220FAC TO-263/DC
- ◆Solder bath temperature 275°C maximum, 10s per JESD22-106



### Primary Characteristic

$I_o$	<b>15A</b>
$V_{RRM}$	<b>400V</b>
$I_{FSM}$	<b>320A</b>
$V_F$	<b>0.91V</b>
$T_J \text{ Max}$	<b>150°C</b>

### 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	$I_o$	15	A
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-220AC TO-263 TO-220FAC	$R_{\theta JA} / R_{\theta JC}$	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)	$V_F$	0.84	-	V
at $I_F=3A$				
		TA=125°C		
at $I_F=5A$		TA=25°C		
		TA=125°C		
at $I_F=15A$		TA=25°C	1.06	
	TA=125°C	0.90	-	
Maximum Reverse Current at $V_R=400V$	$I_R$	0.10	1	uA
		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

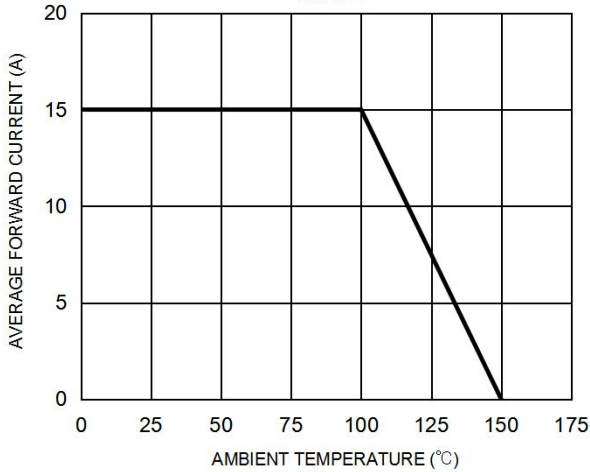


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

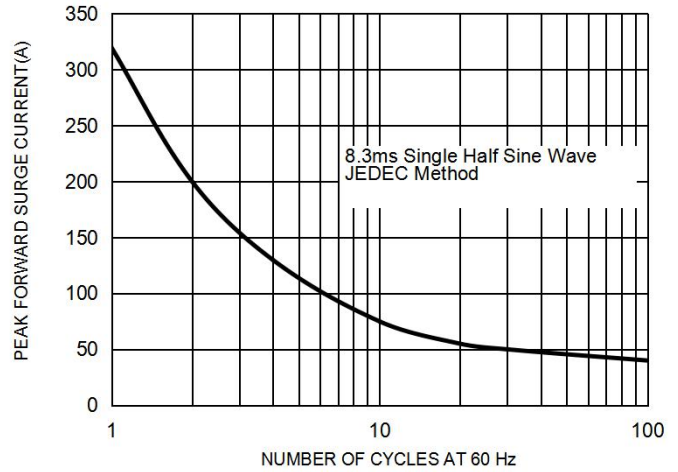


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

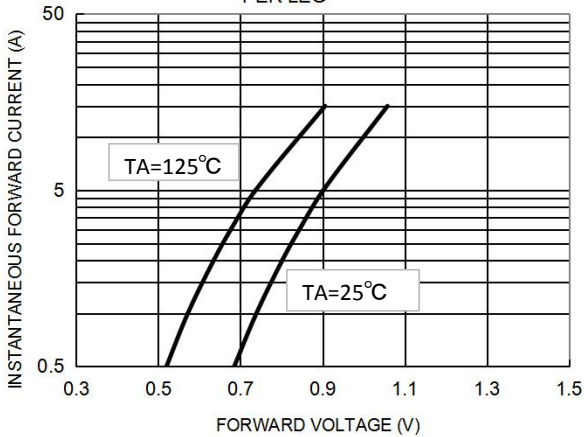
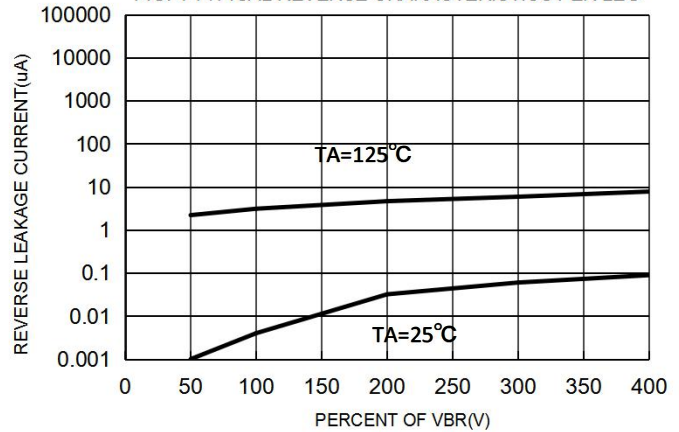
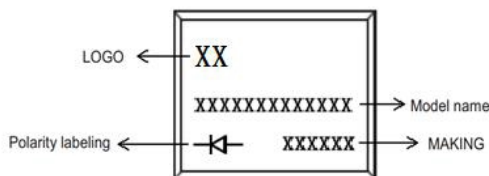


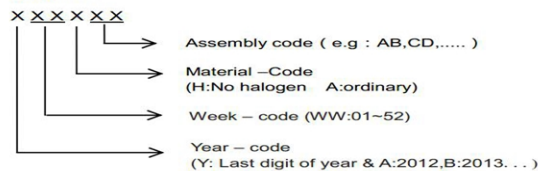
FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



**Marking on the body**



**MAKING:**



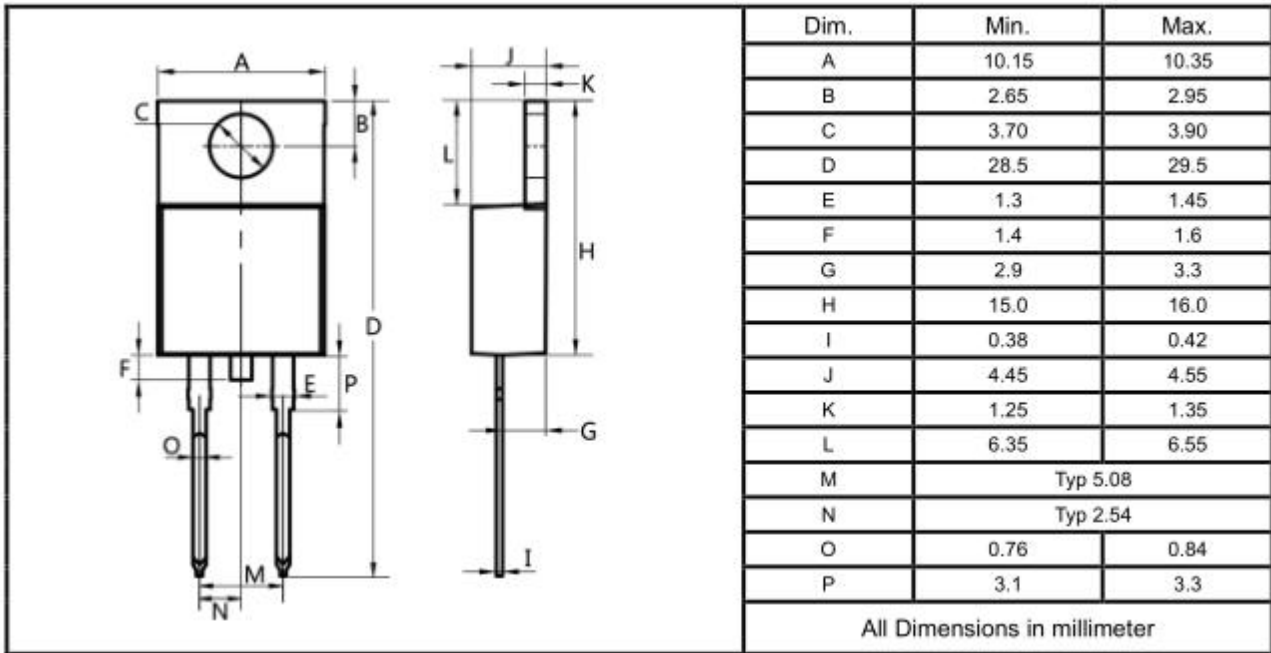
**Ordering information**

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
MUR1540AC	TO-220AC	0.07oz(1.96g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MUR1540FAC	TO-220FAC	0.06oz(1.74g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MUR1540DC -G	TO-263	0.04oz(1.16g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MUR1540DC	TO-263	0.04oz(1.16g)	800 pcs / reel	1600pcs/box4000pcs/carton

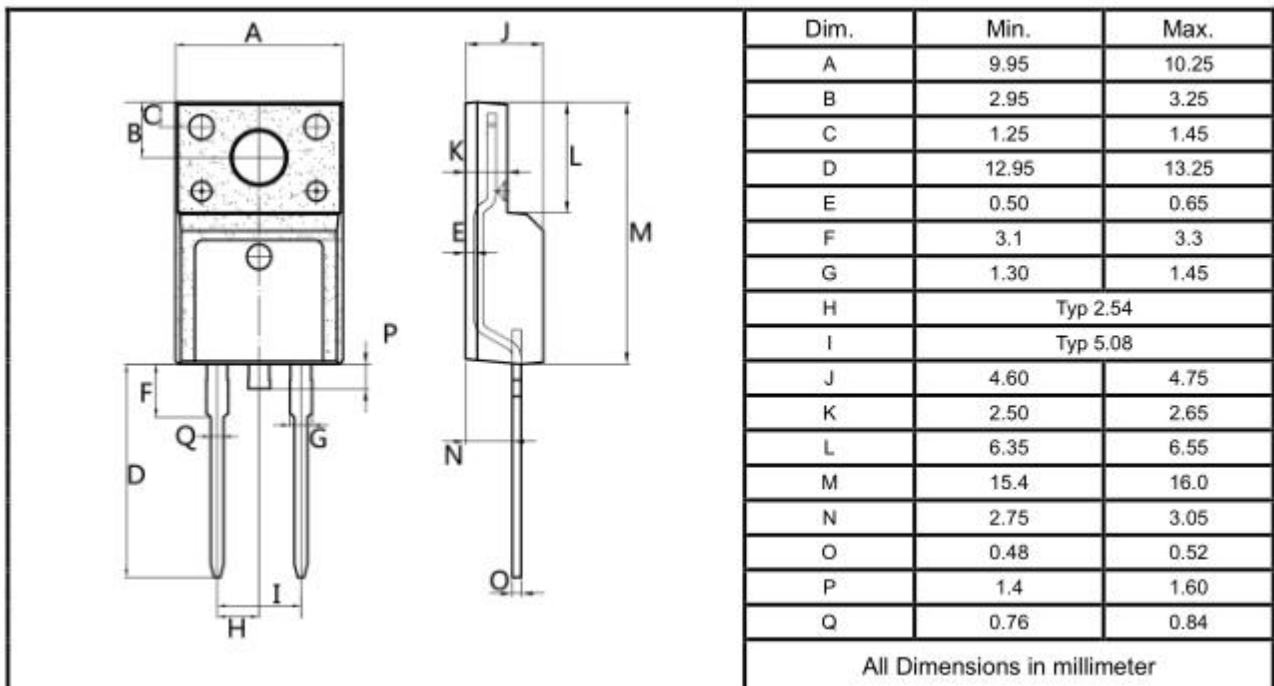
Note: For Halogen Free molding compound, add "H" suffix to part number above.

Package Outline Dimensions millimeters

TO-220AC



TO-220FAC



TO-263

