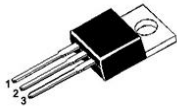




# MUR1640CT/FCT/DC

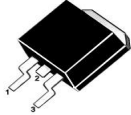
## ULTRAFAST RECOVERY RECTIFIERS



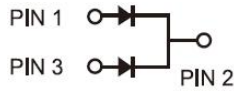
TO-220AB/CT



TO-220F/FCT



TO-263/DC



### 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



### APPLICATIONS

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

### Primary Characteristic

$I_O$	2*8A
$V_{RRM}$	400V
$I_{FSM}$	120A
$V_F$	1.1V
$T_{j,max}$	150°C
Assembly code	XX

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

Characteristics	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	400	V
Working Peak Reverse Voltage	$V_{RWM}$	400	V
Maximum DC Blocking Voltage	$V_{DC}$	400	V
Maximum Average Forward Rectified Current	Per Leg	8	A
	Total	16	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave	$I_{FSM}$	120	A
Operating Temperature Range	$T_J$	150	°C
Storage Temperature Range	$T_{STG}$	-40 to +150	°C
Typical Thermal Resistance (Note1)	$R_{\theta JC}$	2	°C/W
TO-220AB, TO-263			
TO-220F			

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

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

Characteristics	Symbol	Value		Unit	
Forward Voltage Drop (Note2)	$V_F$	Typ.	Max.	V	
at $I_F=3A$		TA=25°C	1.01		-
		TA=125°C	0.87		-
at $I_F=5A$		TA=25°C	1.10		-
		TA=125°C	0.96		-
at $I_F=8A$		TA=25°C	1.20		1.39
		TA=125°C	1.10		-
Maximum Reverse Current at $V_R=400V$		TA=25°C	0.10		1.00
	TA=125°C	10.00	-	μA	
Maximum Reverse Recovery Time at $I_F=0.5A, I_R=1A, I_{RR}=0.25A$	$T_{rr}$	-	35.00	ns	

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



# MUR1640CT/FCT/DC

## RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

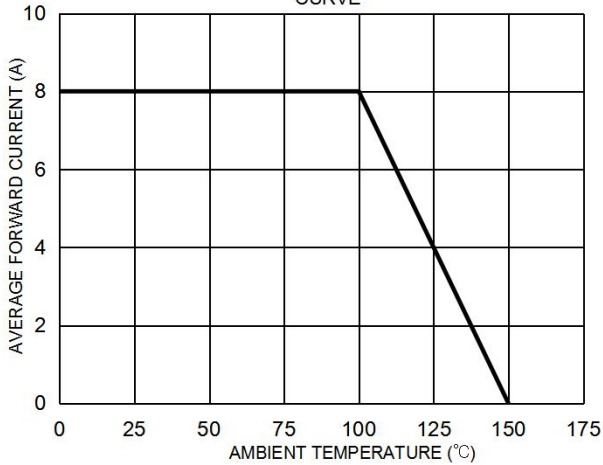


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

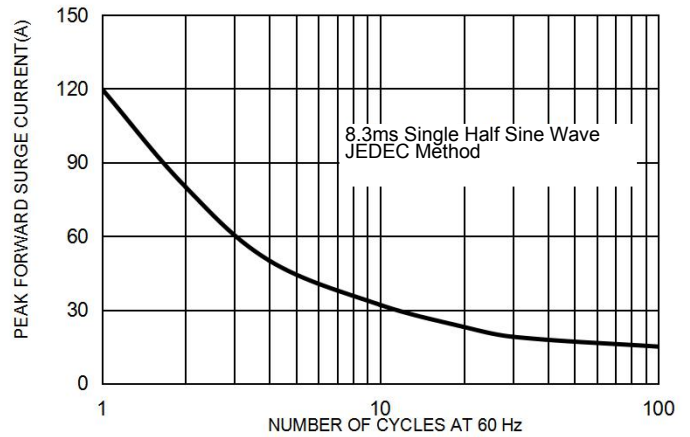


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

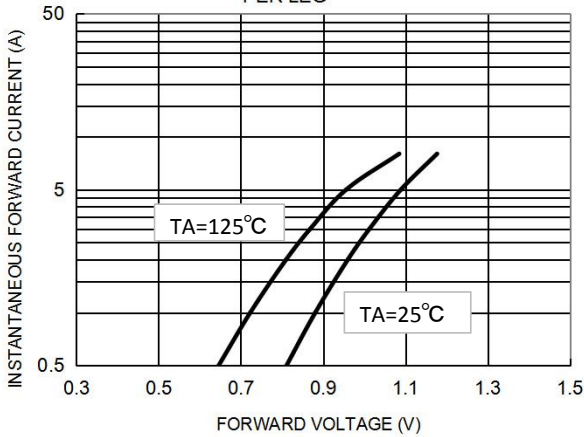
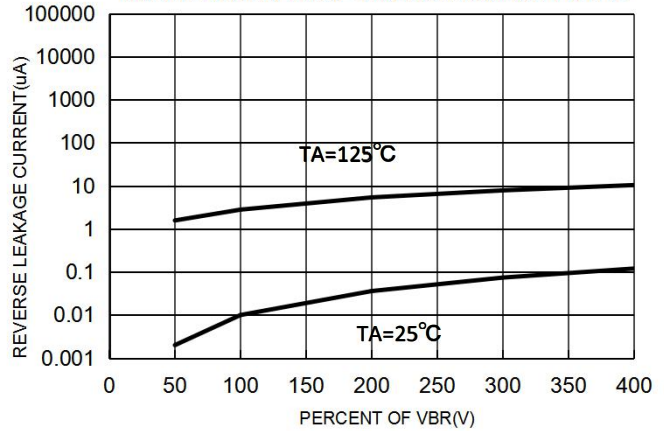
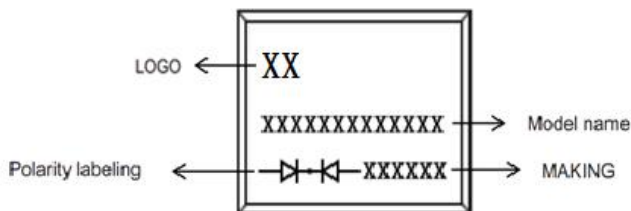


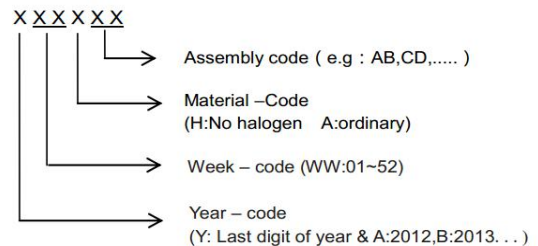
FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



## Marking on the body



### MAKING:



## Ordering information

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
MUR1640CT	TO-220AB	0.07oz(1.96g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MUR1640FCT	TO-220F	0.06oz(1.74g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MUR1640DC	TO-263	0.04oz(1.16g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MUR1640DC-R	TO-263	0.04oz(1.16g)	800 pcs / reel	800pcs/box 4000pcs/carton

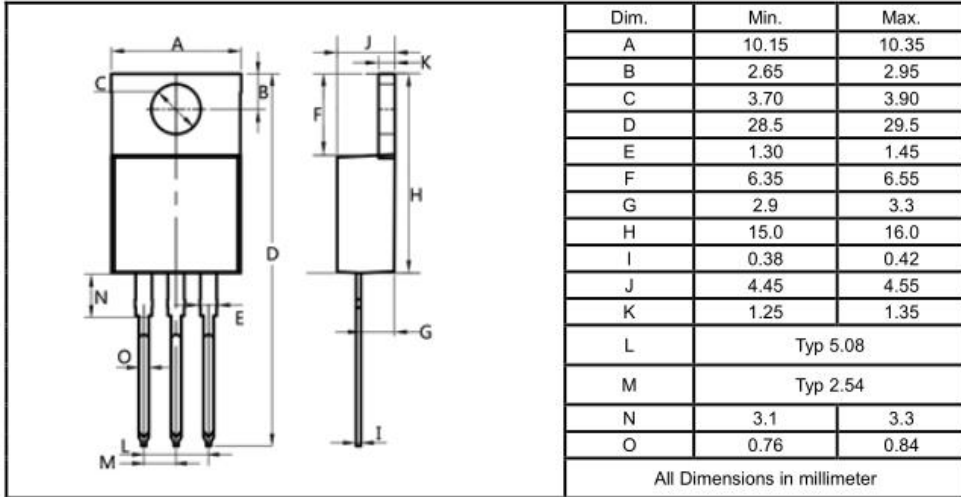
Note: For Halogen Free molding compound, add "H" suffix to part number above.



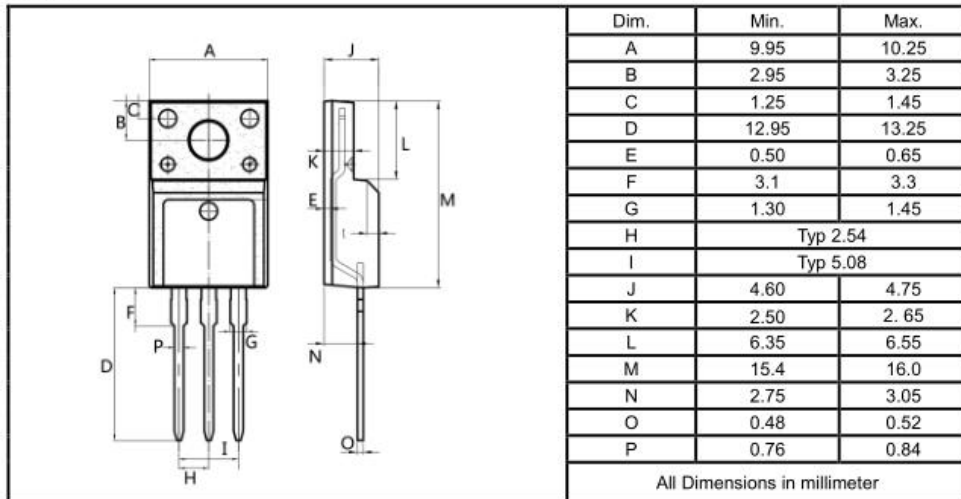
# MUR1640CT/FCT/DC

## Package Outline Dimensions millimeters

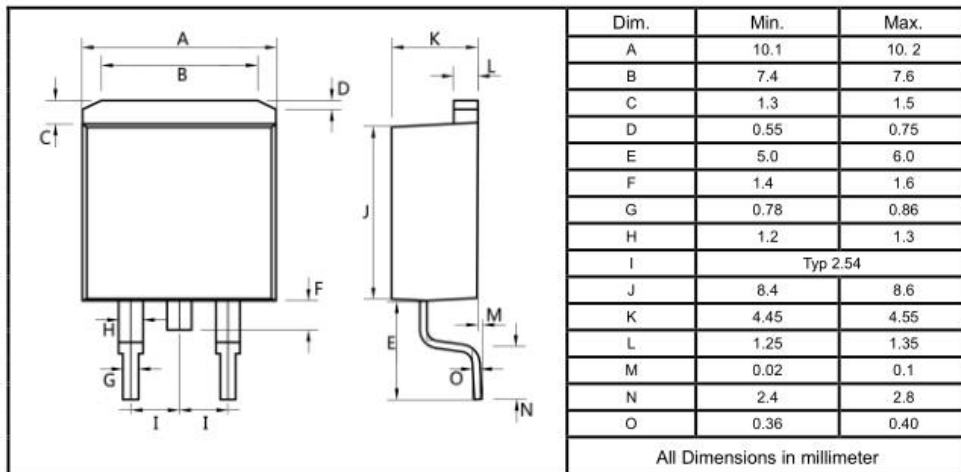
**TO-220AB**



**TO-220F**



**TO-263**



### 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.