



# MUR1040(F)CT

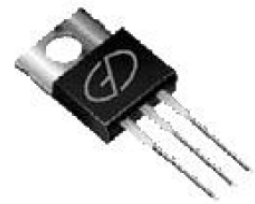
Ultrafast Recovery Planar Diode  
Reverse Voltage 400 Volts Forward Current 10 Amperes

## Features

- FRED (Planar) wafer construction
- Ultrafast recovery time
- Low forward voltage drop, low power losses
- High efficiency operation
- Plastic package has underwriters Laboratory Flammability Classification 94V-0



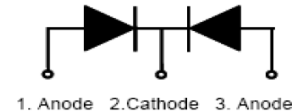
Package: ITO-220-AB



Package: TO-220-AB

## Mechanical Data

- Case: Epoxy, Molded
- Weight: 1.9grams (approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 sec
- Shipped 50 units per plastic tube



## Maximum Ratings & Electrical Characteristics

(T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER		TEST CONDITIONS		SYMBOL	MUR1040(F)CT	UNIT
Maximum repetitive peak reverse voltage				V <sub>RRM</sub>	400	V
Working peak reverse voltage				V <sub>RWM</sub>	400	V
Maximum DC blocking voltage				V <sub>DC</sub>	400	V
Maximum average forward rectified current at T <sub>c</sub> =105°C total device per diode				I <sub>F(AV)</sub>	10 5	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode				I <sub>FSM</sub>	100	A
Voltage rate of change (rated V <sub>R</sub> )				DV/dt	10000	V/us
Operating junction temperature range				T <sub>J</sub>	—55 to+150	°C
Storage temperature range				T <sub>STG</sub>	—55 to+150	°C
Maximum Reverse Recover Time (I <sub>F</sub> =0.5Amp, I <sub>R</sub> =1.0Amp, I <sub>rec</sub> =0.25Amp)		T <sub>rr</sub>		T <sub>rr</sub>	35	ns
Maximum instantaneous forward voltage per leg		I <sub>F</sub> =5A I <sub>F</sub> =5A	T <sub>C</sub> =25°C T <sub>C</sub> =125°C	V <sub>F</sub>	1.30 1.20	V
Maximum reverse current per leg at working peak Reverse voltage			T <sub>J</sub> =25°C T <sub>J</sub> =100°C	I <sub>R</sub>	10 500	uA
Thermal Characteristics T <sub>A</sub> =25°C unless otherwise noted						
Symbol	Parameter	TYP (TO-220-AB)		TYP (ITO-220-AB)		Unit
RθJC	Thermal Resistance, Junction to Case per Leg	2.0		4.0		°C /W
RθJA	Thermal Resistance, Junction to Ambient per Leg	62.5		62.5		°C /W

Note: Pulse test:300us pulse width, duty cycle=2%



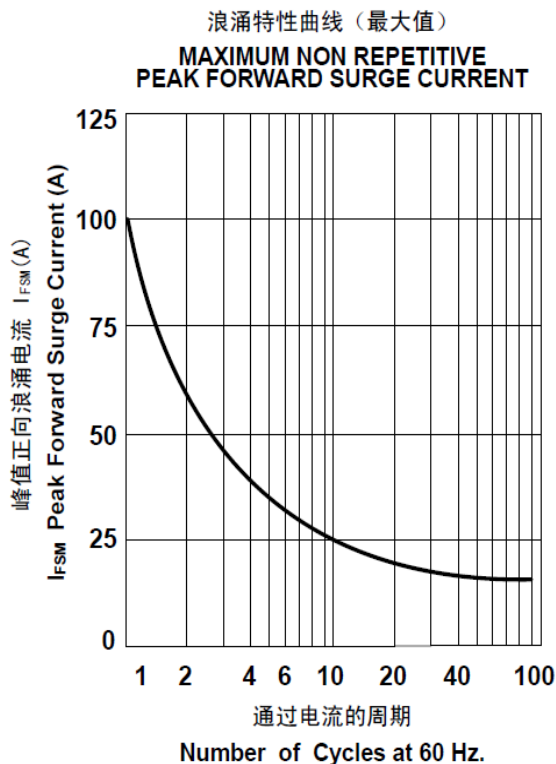
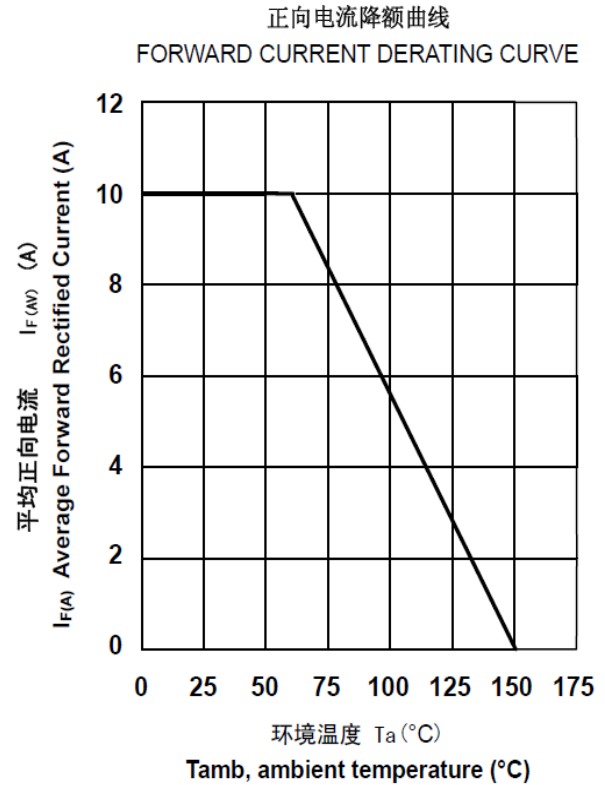
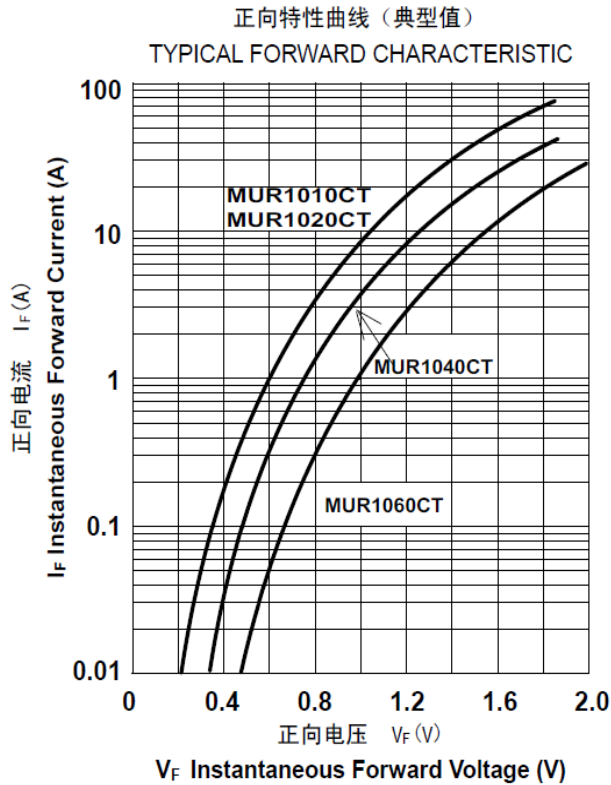
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## Ratings and Characteristics Curves

( $T_A = 25^\circ\text{C}$  unless otherwise noted)





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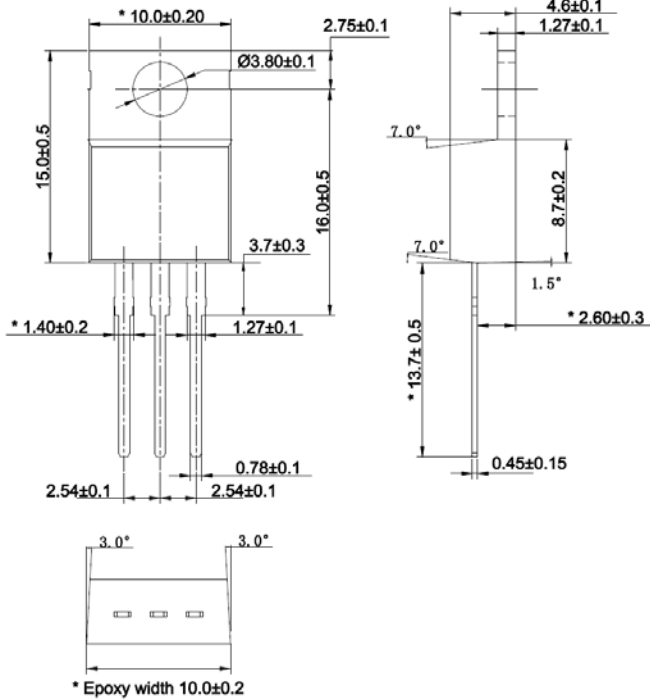
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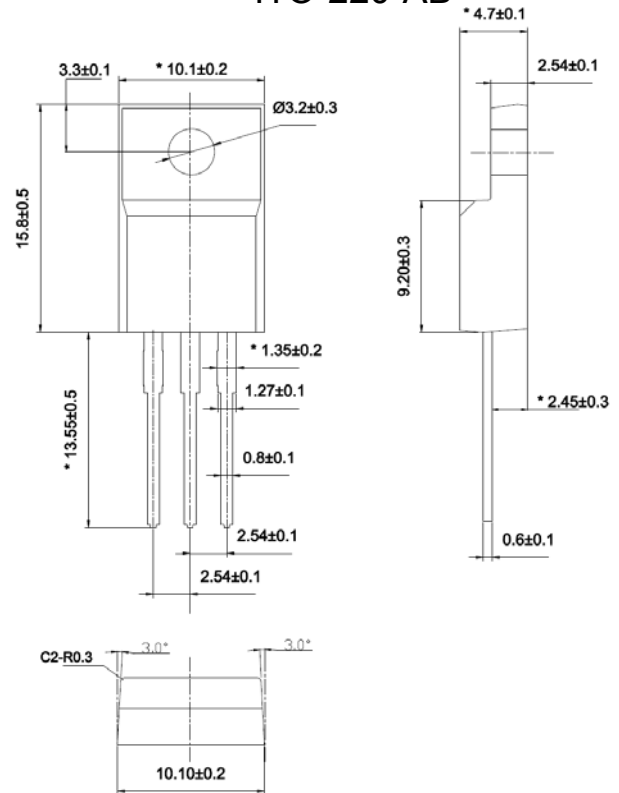
## Package Outline Dimensions

Unit: millimeters

### TO-220-AB



### ITO-220-AB





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