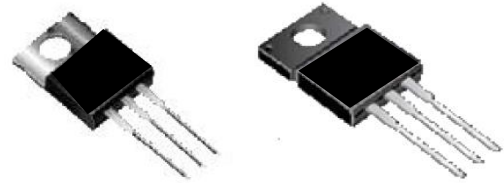


# MUR1040CT/MUR1040FCT

Super Fast Recovery Planar Rectifier  
Reverse Voltage 400V Forward Current 10A

## Features

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

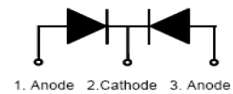


**MUR1040CT**  
Package: TO-220-AB

**MUR1040FCT**  
Package: ITO-220-AB

## Mechanical Data

- Case: Epoxy, Molded
- Weight: 1.9grams(approximately)
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 sec
- Shipped 50 units per plastic tube

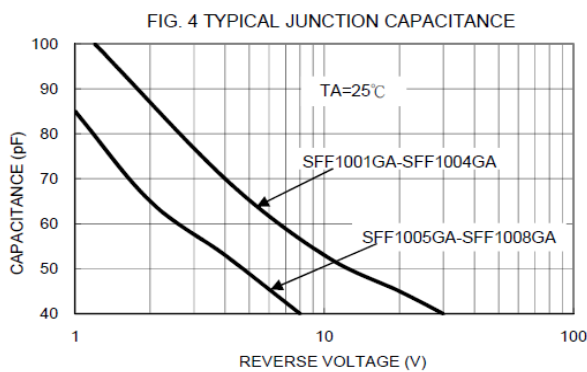
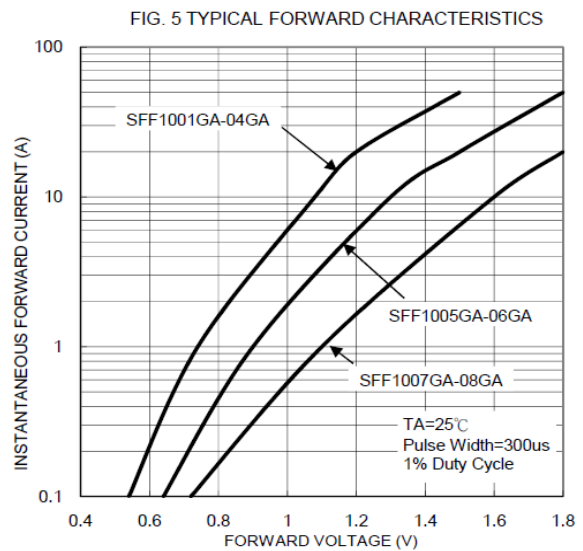
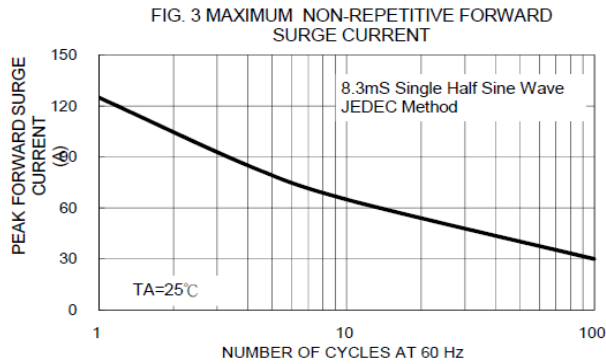
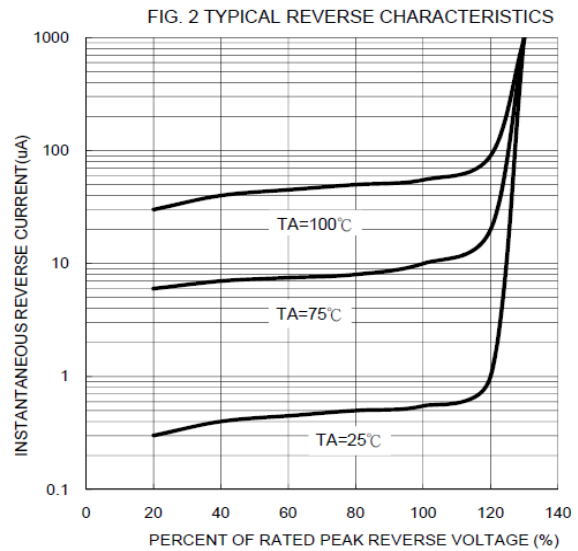
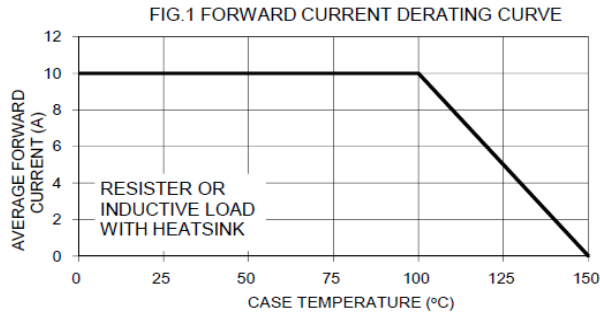


## Maximum Ratings (T<sub>A</sub> = 25°C unless otherwise noted)

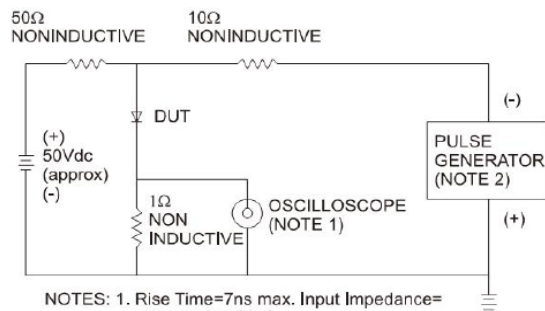
PARAMETER	TEST CONDITIONS	SYMBOL	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage		V <sub>RRM</sub>	400	V
Working Peak Reverse Voltage		V <sub>RWM</sub>	400	V
Maximum DC Blocking Voltage		V <sub>DC</sub>	400	V
Maximum Average Forward Rectified Current at T <sub>c</sub> =105°C total device per diode		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>	125	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>	35	ns
Maximum Instantaneous Forward Voltage per Leg	I <sub>F</sub> =10A T <sub>C</sub> =25°C I <sub>F</sub> =10A T <sub>C</sub> =125°C	V <sub>F</sub>	1.40 1.30	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
<b>Thermal Characteristics T<sub>A</sub>=25°C unless otherwise noted</b>				
Symbol	Parameter	TYP.(TO-220-AB)	TYP.(ITO-220-AB)	Unit
R <sub>θJC</sub>	Thermal Resistance, Junction to Case per Leg	2.0	4.0	°C /W
R <sub>θJA</sub>	Thermal Resistance, Junction to Ambient per Leg	62.5	62.5	°C /W

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

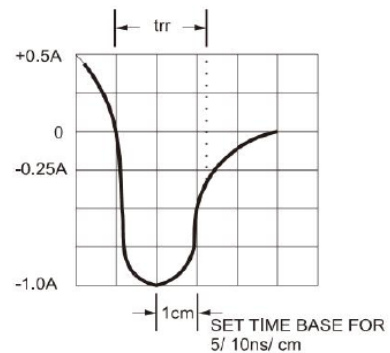
## Ratings and Characteristics Curves ( $T_A = 25^\circ\text{C}$ unless otherwise noted)



**FIG. 6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**



NOTES: 1. Rise Time=7ns max. Input Impedance=1 megohm 22pf  
2. Rise Time=10ns max. Source Impedance=50 ohms



# MUR1040CT/MUR1040FCT

Super Fast Recovery Planar Rectifier  
Reverse Voltage 400V Forward Current 10A

## Package Outline Dimensions

Unit: millimeters

TO-220-AB

ITO-220-AB

