

## Features

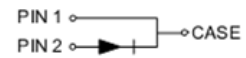
- FRED (Planar) wafer construction
- Low forward voltage drop, low power losses
- High efficiency operation
- Plastic package has underwriters Laboratory  
 Flammability Classification 94V-0

## 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



**MUR840** Package: TO-220-AC      **MUR840F** Package: ITO-220-AC



## 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>	8	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> =8A	T <sub>C</sub> =25°C	V <sub>F</sub>	1.30	V
	I <sub>F</sub> =8A	T <sub>C</sub> =125°C		1.20	
Maximum Reverse Current per Leg at working peak reverse voltage	T <sub>J</sub> =25°C		I <sub>R</sub>	10	uA
	T <sub>J</sub> =100°C			500	uA
<b>Thermal Characteristics T<sub>A</sub>=25°C unless otherwise noted</b>					
Symbol	Parameter	TYP.(TO-220-AC)		TYP.(ITO-220-AC)	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)

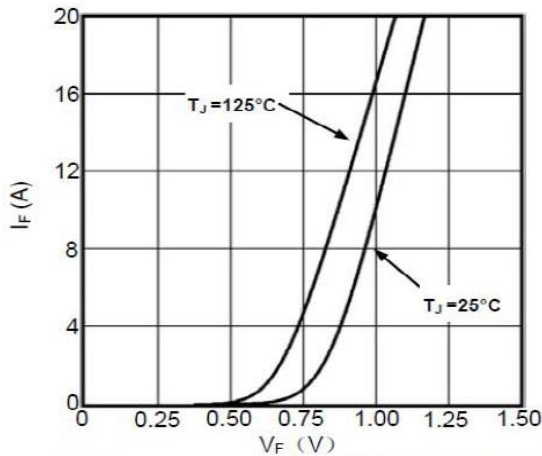


Fig1. Forward Voltage Drop vs Forward Current

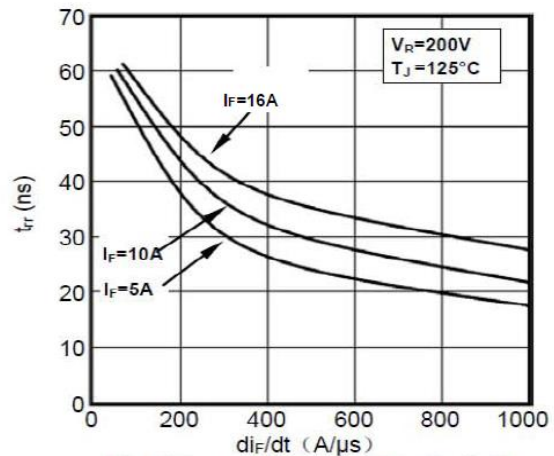


Fig2. Reverse Recovery Time vs  $di_F/dt$

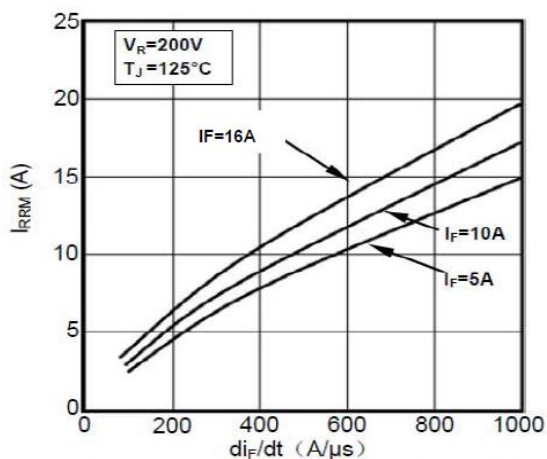


Fig3. Reverse Recovery Current vs  $di_F/dt$

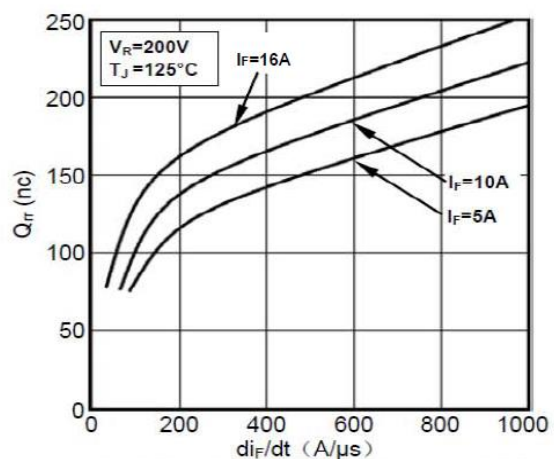


Fig4. Reverse Recovery Charge vs  $di_F/dt$

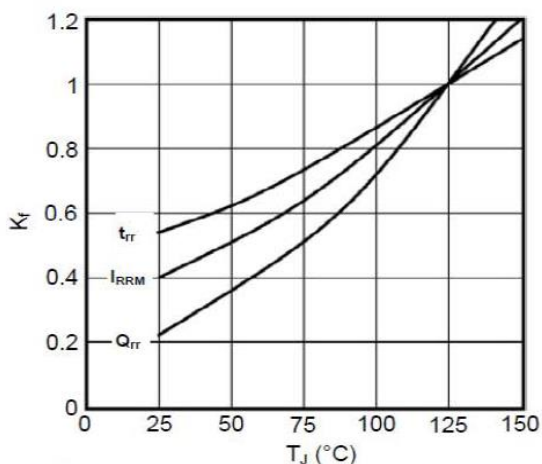


Fig5. Dynamic Parameters vs Junction Temperature

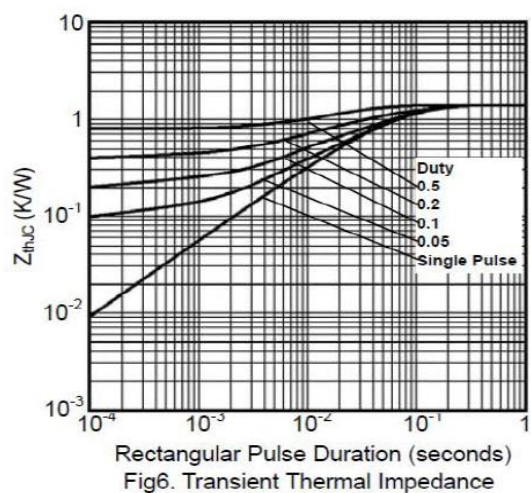
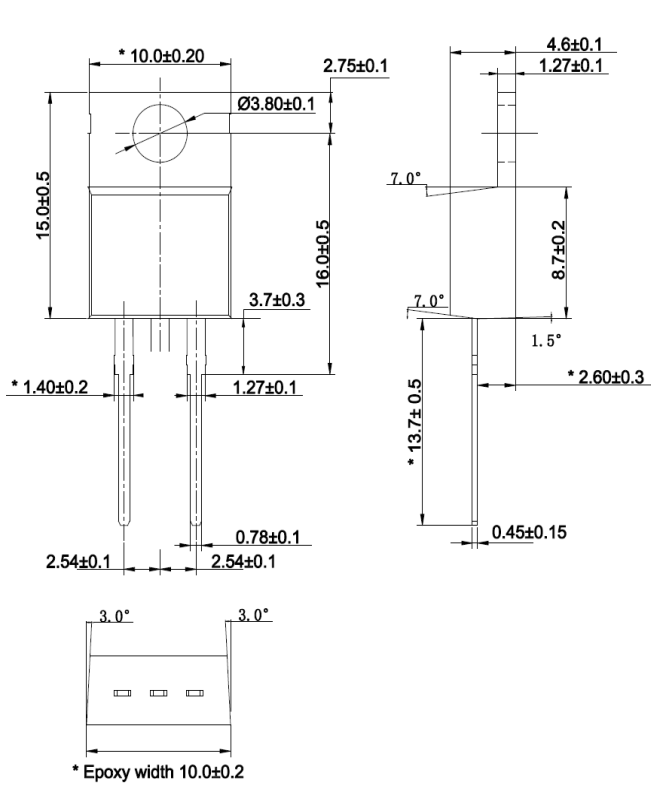


Fig6. Transient Thermal Impedance

**Package Outline Dimensions**

Unit: millimeters

**TO-220-AC**



**ITO-220-AC**

