Product Specification

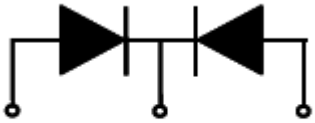
GOODARK Type

MUR2040FCT/MUR2040CT

Construction : : Ultra Fast Recover diode

Application : For power switch

（Manufacturer）:
Suzhou Goodark Electronics Co.,Ltd
Prepared on Oct. 30th, 2013
Prepared: R & D Department
Approval：QRA Department



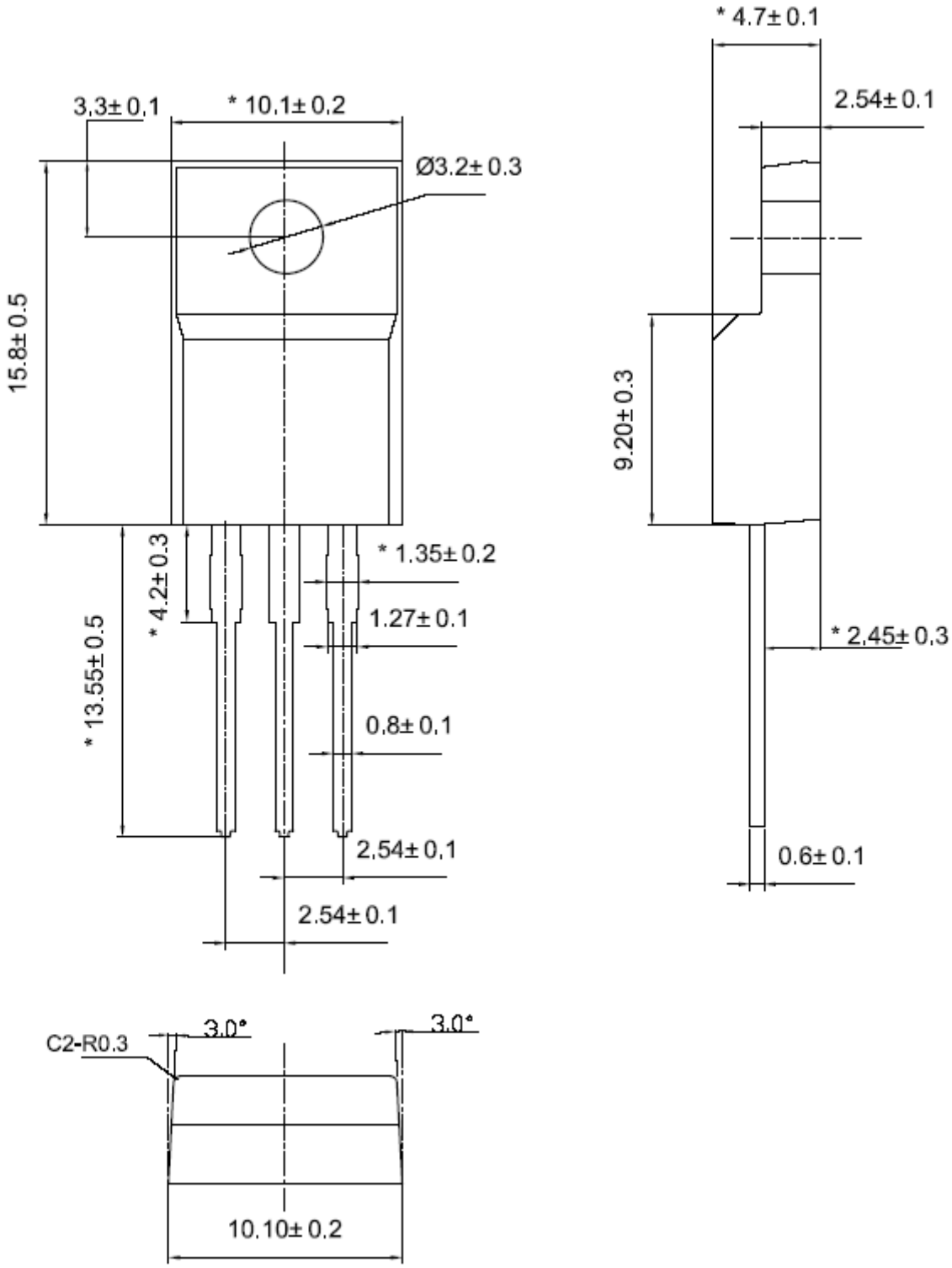
1. Anode 2.Cathode 3. Anode

CONTENTS

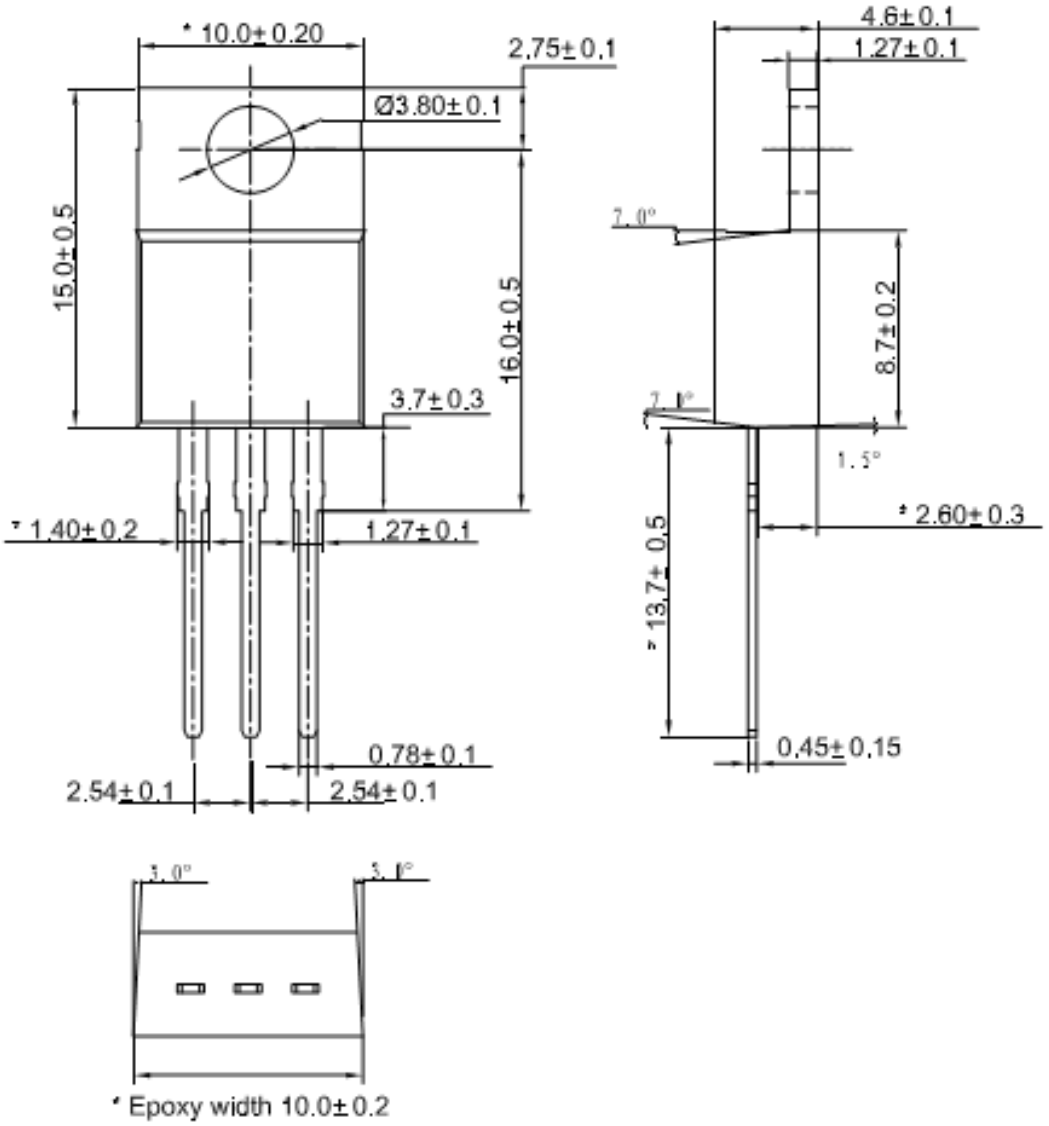
Pb-free Plating

1. Package Outline (TO220F-AB)

UNIT:mm

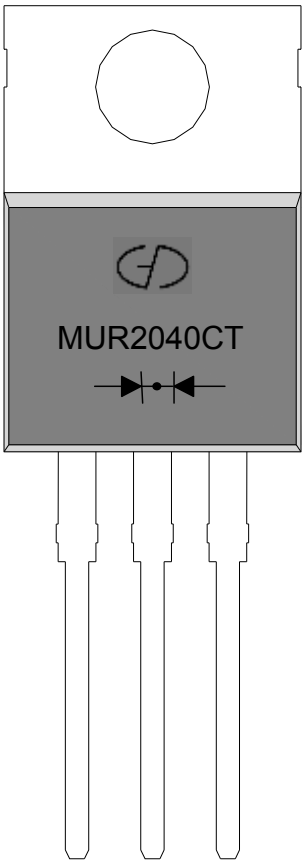


Package Outline (TO220-AB)



Lead Frame Material : Copper Plating: Pure Tin Plating

2. MARKING



1. Part Name : MUR2040FCT(TO220F)
   MUR2040CT(TO220AB)
2. Logo Mark:
3. Polarity：

Pb-free Plating

3.Features& Mechanical Characteristics

Features

- **Plastic package has underwriters Laboratory Flammability Classification 94V-0**
- **Dual rectifier construction，positive center tap**
- **Metal of silicon rectifier，majority carrier conduction**
- **Low forward voltage，high efficiency**
- **Guarding for over voltage protection**
- **For use in low voltage，high frequency inverters，**
- **Free wheeling，and polarity protection applications**

Mechanical Characteristics

- **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.for10 sec**
- **Shipped 50 units per plastic tube**

4.Maximum Ratings and Electrical Characteristics

MAXIMUM RATINGS and ELECTRICAL CHARACTERISTICS(TC=25°C unless otherwise moted)					
PARAMETER	**TEST CONDITIONS**		**SYMBOL**	**MUR2040(F)CT**	**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 at Per Leg Tc=105°C total device per diode Per device			$I_{F(AV)}$	10 20	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode			I_{FSM}	125	A
Operating junction temperature range			T_J	—55 to+150	°C
Isolation voltage (ITO-220AB only) from terminal to heatsink t = 1 sec			VAC	1500	V
Storage temperature range			T_{STG}	—55 to+150	°C
Maximum instantaneous forward voltage per leg	IF=10A IF=10A	TC=25℃ TC=125℃	VF	1.50 1.35	V
Maximum reverse current per leg at working peak Reverse voltage		TJ=25℃ TJ=100°C	IR	50 500	uA uA
Maximum Reverse Recover Time （If=0.5Amp, IR=1.0Amp,Irec=0.25Amp）	Trr		Trr	50	ns

Thermal Characteristics Ta=25℃ unless otherwise noted

Symbol	Parameter	Type（TO220AB）	Type（TO220F）	Unit
$R_{\theta JC}$	Thermal Resistance，Junction to Case per Leg	2.0	4.0	°C /W
$R_{\theta JA}$	Thermal Resistance，Junction to Ambient per Leg	62.5	62.5	°C /W

Note：

1. Screw mounting with 4-40 screw，where washer diameteris≤4.9mm(0.19〃)
2. Pulse test:300us pulse width,1% duty cycle

Pb-free Plating

5.Rating and Characteristic Curves

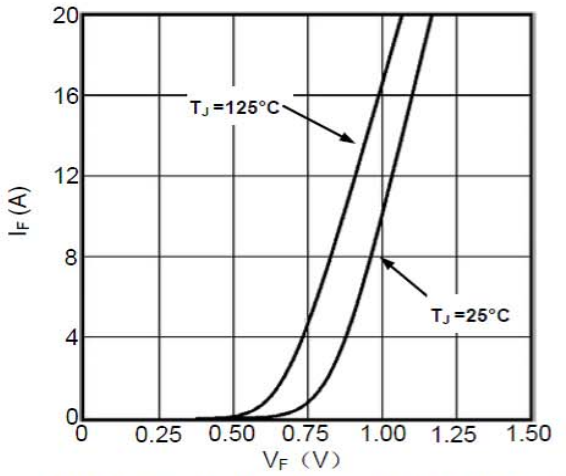


Fig1. Forward Voltage Drop vs Forward Current

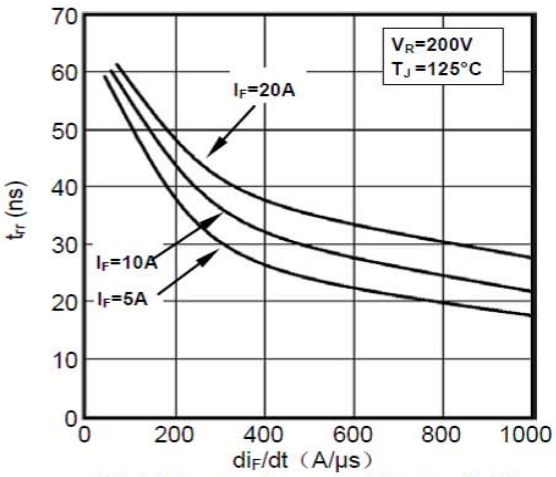


Fig2. Reverse Recovery Time vs di_F/dt

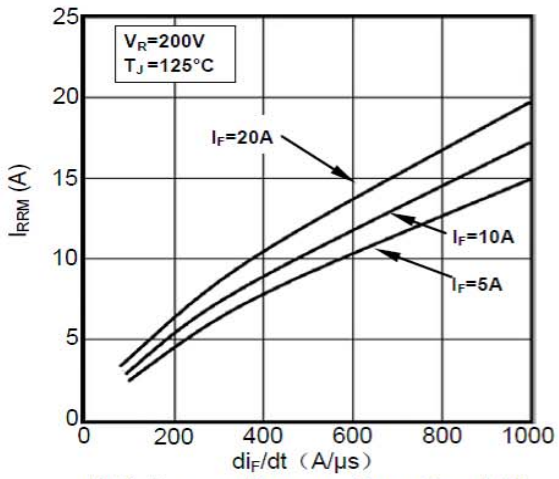


Fig3. Reverse Recovery Current vs di_F/dt

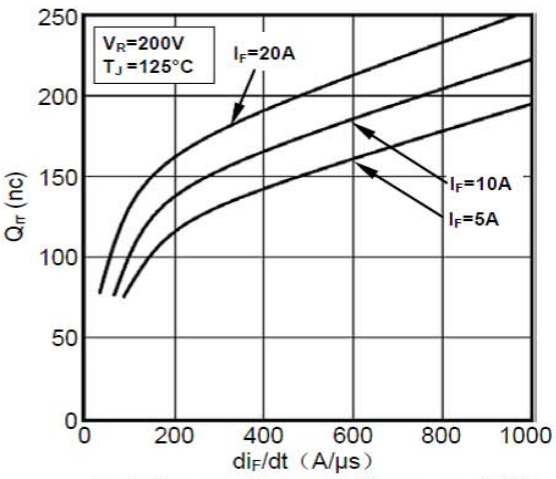


Fig4. Reverse Recovery Charge vs di_F/dt

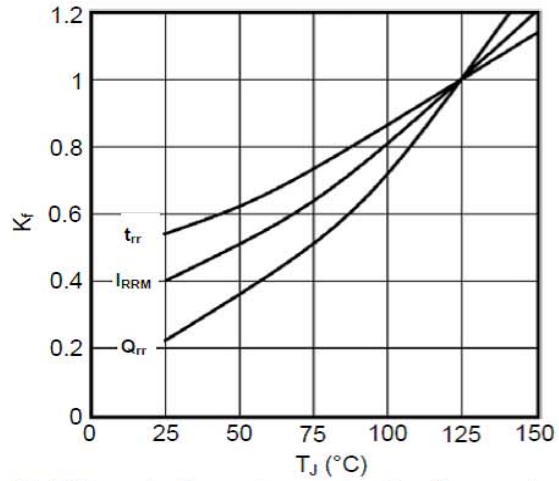


Fig5. Dynamic Parameters vs Junction Temperature

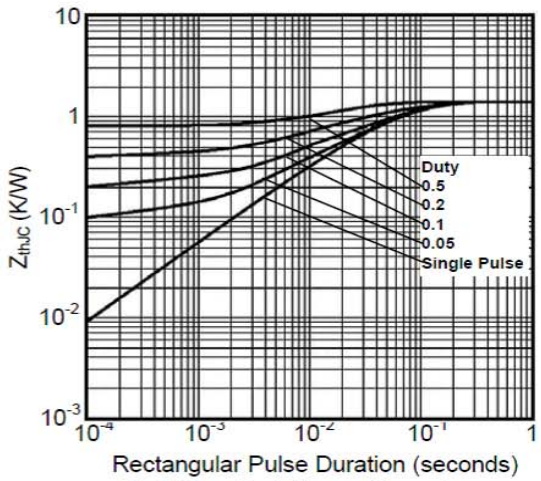
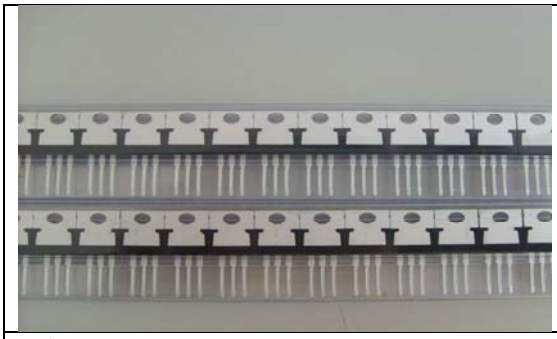
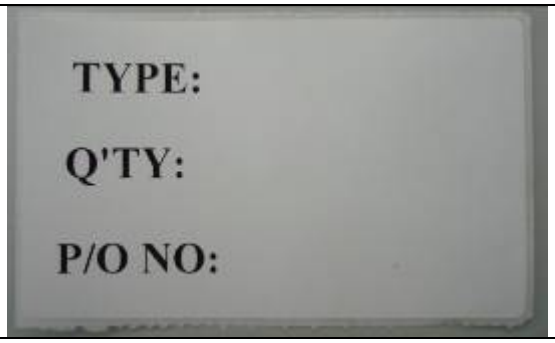


Fig6. Transient Thermal Impedance

6. Packing Specification

	
1 ）Tube : 50units	2）Inner Box: 20 tube(1000units)
	
3） Outer Box: 10 inner box (10,000units)	

7. DESCRIPTION of BOX LABEL

	
1） Inner Box Label	2）Inner Box Label
	
3）Outer Box Label	4）Outer Box Label