

Product Specification

GOODARK Type

MUR640,MUR640F

Construction : Ultra Fast Recover diode

Application : For power switch

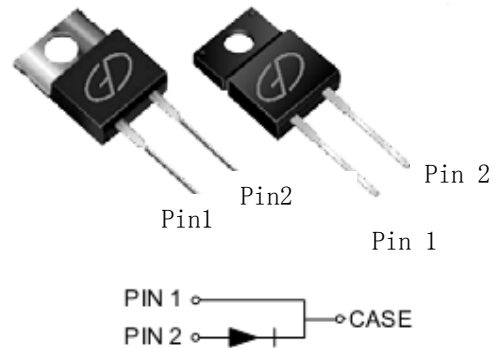
(Manufacturer) :

Suzhou Goodark Electronics Co.,Ltd

Prepared on Sep. 17th, 2008

Prepared: R & D Department

Approval:

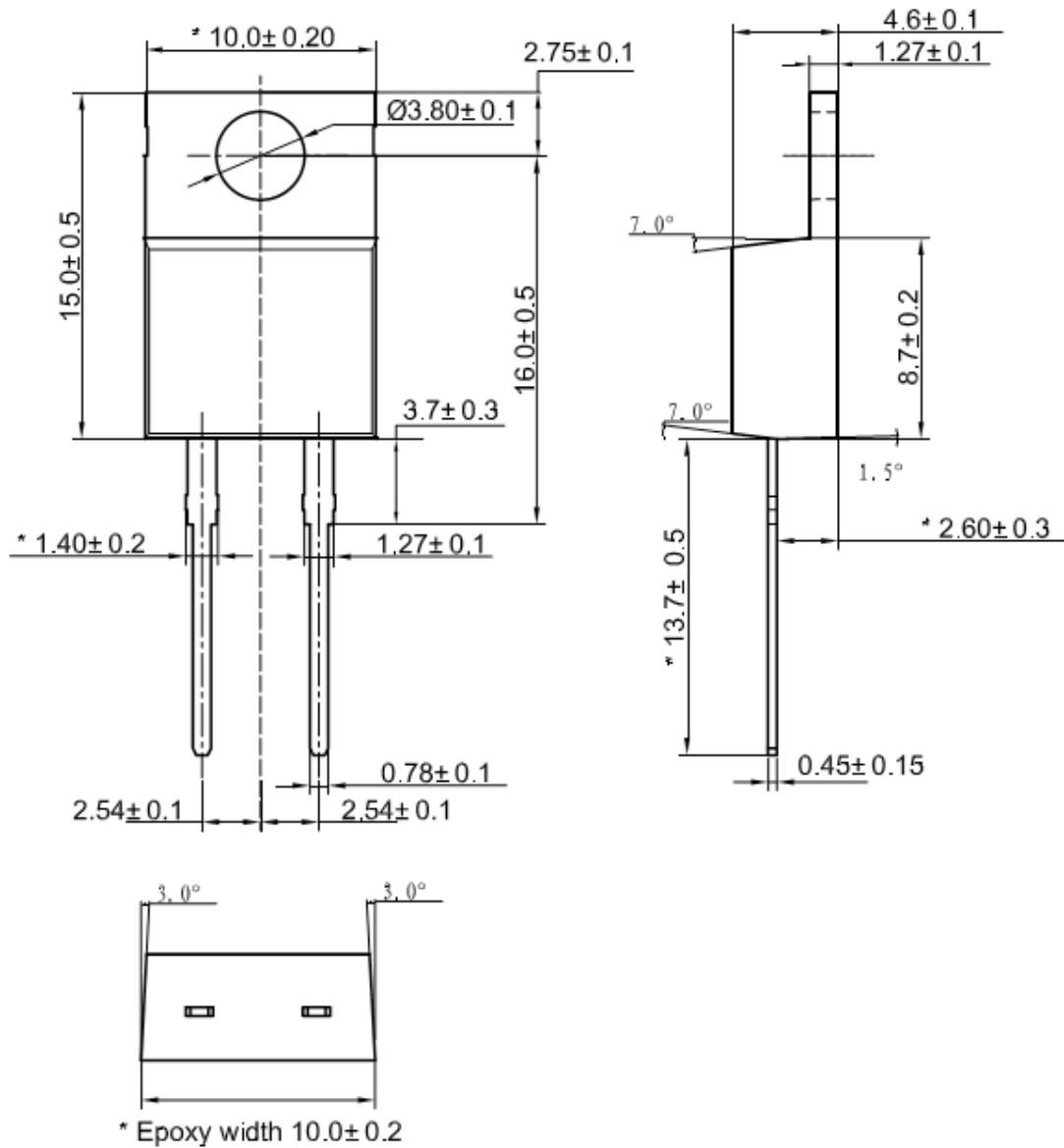


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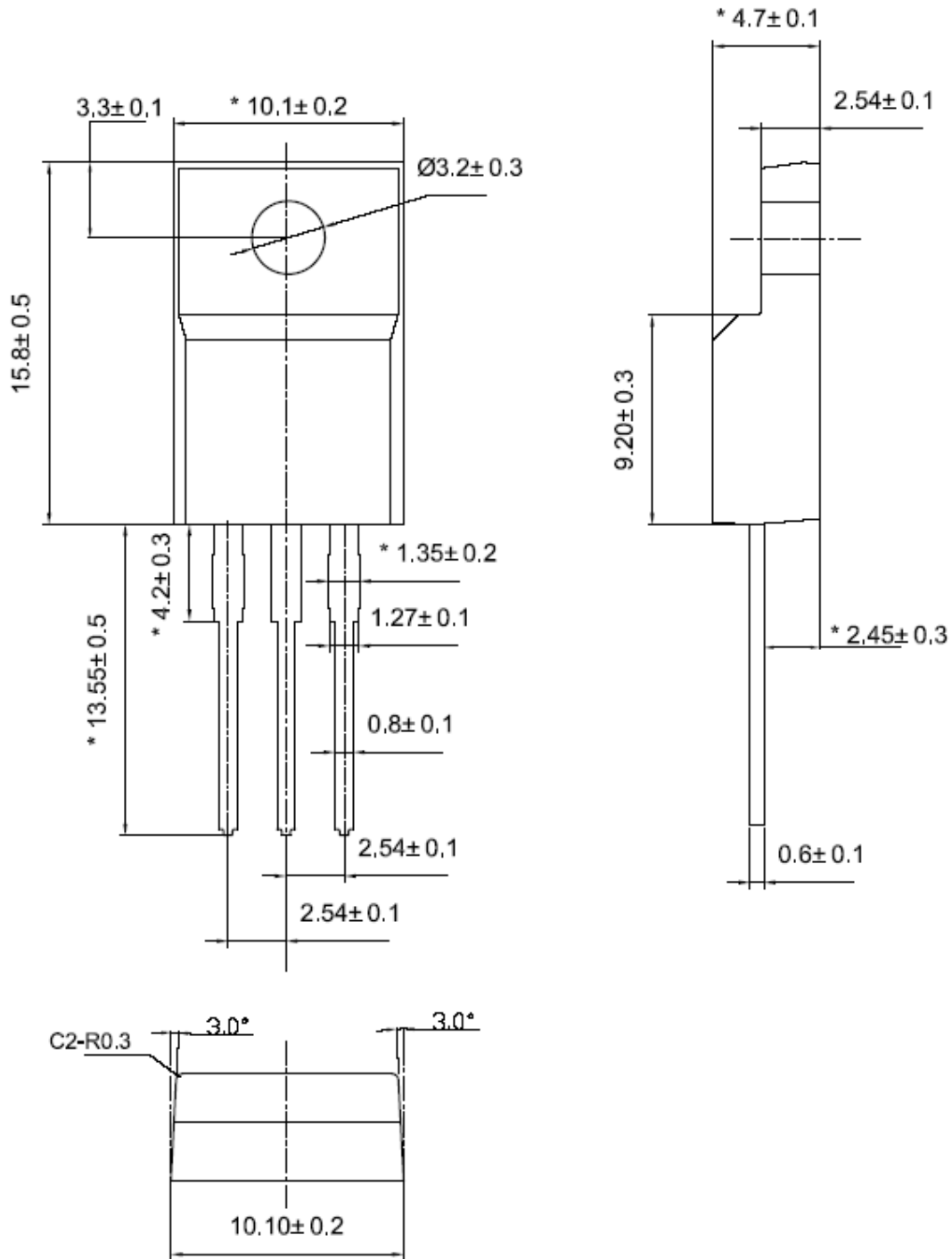
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1. Package Outline (TO220-AC)

UNIT:mm



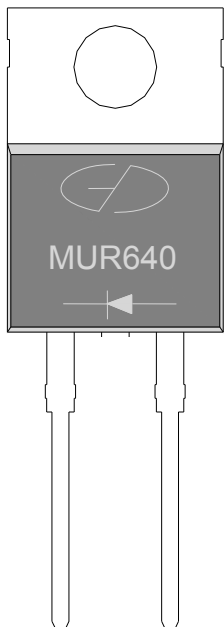
Package Outline (ITO220-AC)





Lead Frame Material : Copper Plating: Pure Tin Plating

Plating Thickness : $8\mu\text{m}$ to $25.4\mu\text{m}$

2. MARKING



1. Part Name : MUR640(TO220-AC)
MUR640F(ITO220-AC)
2. Logo Mark: 
3. Polarity: 



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 | MUR640 | UNIT |
| Maximum repetitive peak reverse voltage | | | VRRM | 400 | V |
| Working peak reverse voltage | | | VRWM | 400 | V |
| Maximum DC blocking voltage | | | VDC | 400 | V |
| Maximum average forward rectified current at Tc=100°C total device per diode | | | IF(AV) | 6 | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode | | | IFSM | 80 | A |
| Operating junction temperature range | | | TJ | —55 to+150 | °C |
| Storage temperature range | | | TSTG | —55 to+150 | °C |
| Maximum instantaneous forward voltage per leg | IF=6A IF=6A | TC=25°C TC=125°C | VF | 1.30 1.20 | V |
| Maximum reverse current per leg at working peak Reverse voltage | | | IR | 10 500 | uA uA |
| Maximum Reverse Recover Time (If=0.5Amp, IR=1.0Amp,Irec=0.25Amp) | Trr | | Trr | 50 | ns |

Thermal Characteristics Ta=25°C unless otherwise noted

| Symbol | Parameter | Max (TO220AC) | Max (ITO220AC) | 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:

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



5. Rating and Characteristic Curves

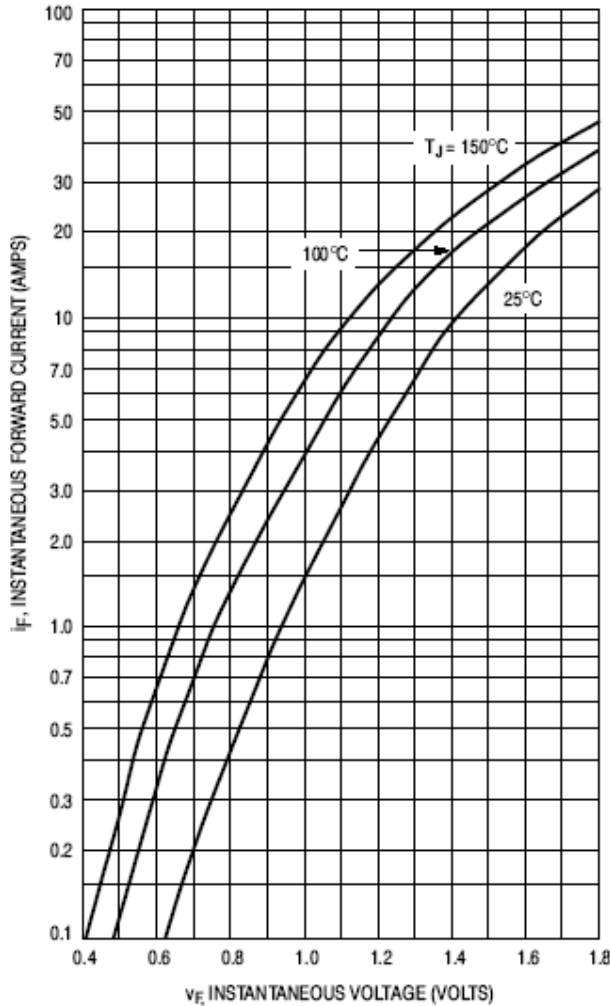


Figure 11. Typical Forward Voltage

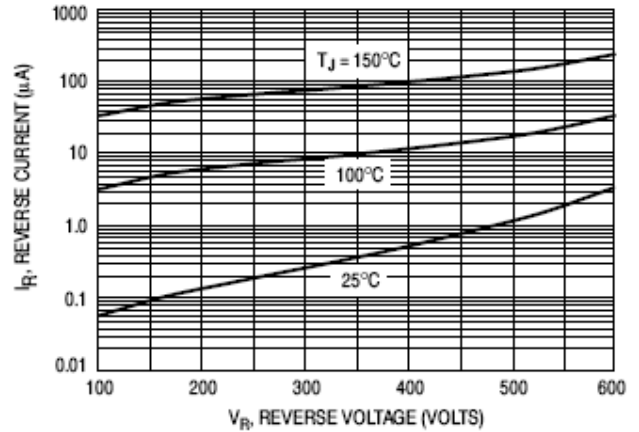


Figure 12. Typical Reverse Current*

* The curves shown are typical for the highest voltage device in the grouping. Typical reverse current for lower voltage selections can be estimated from these same curves if V_R is sufficiently below rated V_R .

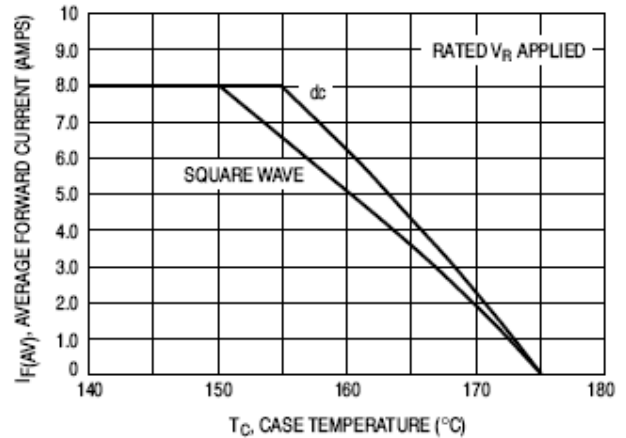


Figure 13. Current Derating, Case

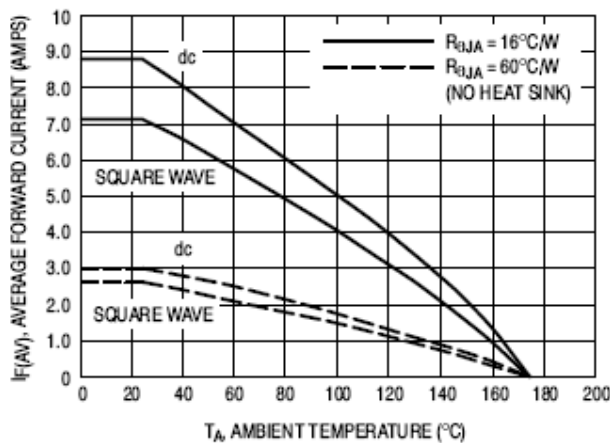


Figure 14. Current Derating, Ambient

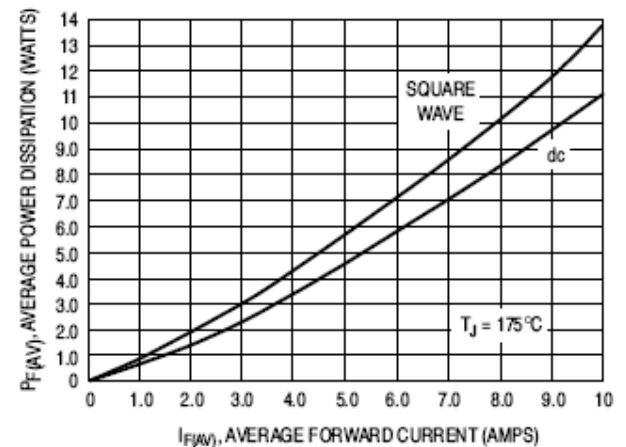


Figure 15. Power Dissipation

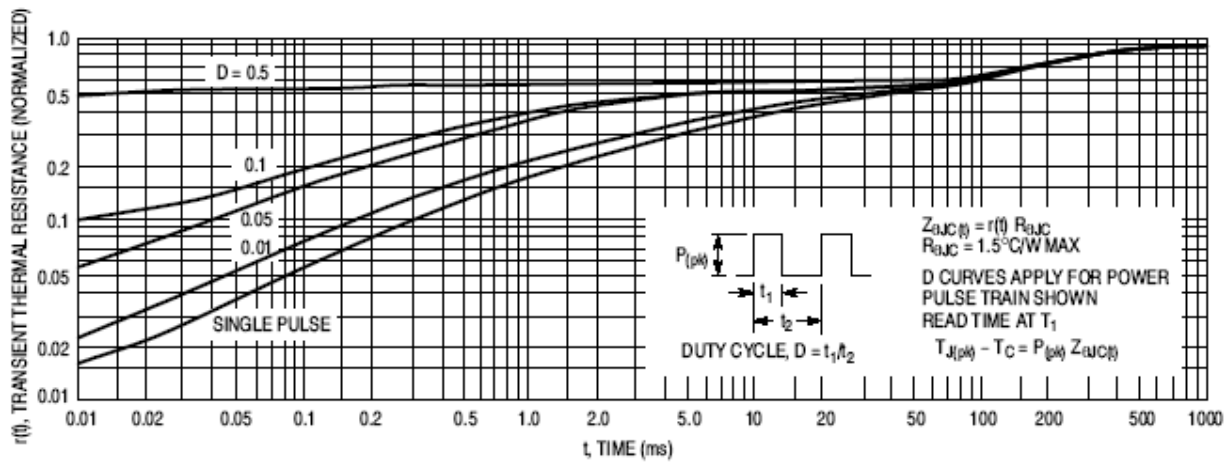


Figure 16. Thermal Response

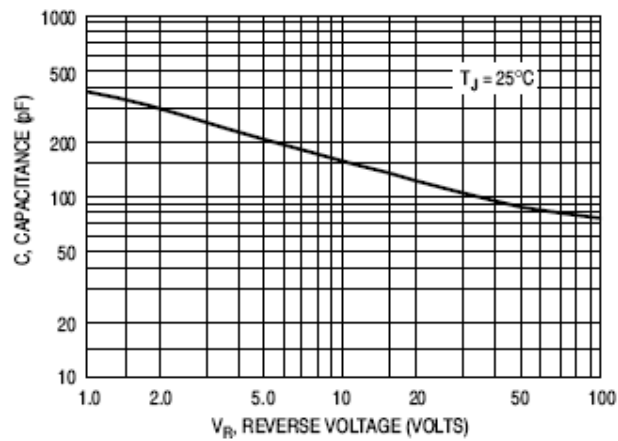
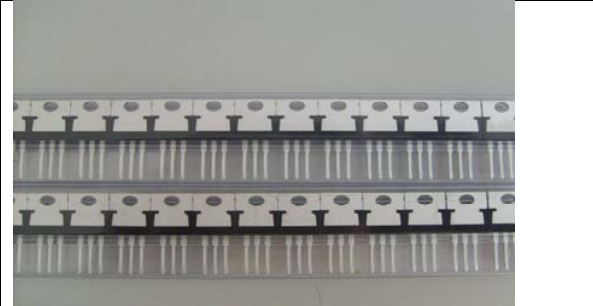




Figure 17. Typical Capacitance

6. Packing Specification

| | |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|  |  |
| <p>1) Tube : 50units</p> | <p>2) Inner Box: 20 tube(1000units)</p> |
|  | |
| <p>3) Outer Box: 10 inner box (10,000units)</p> | |

7. DESCRIPTION of BOX LABEL

| | |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------|
|  | <p>TYPE: Q'TY: P/O NO: LOT NO:</p> |
| <p>1) Inner Box Label</p> | <p>2) Inner Box Label</p> |
|  | <p>TYPE: Q'TY: P/O NO:</p> |
| <p>3) Outer Box Label</p> | <p>4) Outer Box Label</p> |