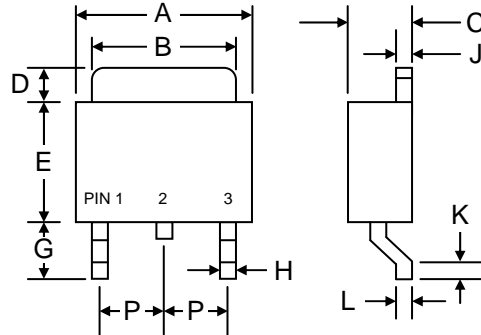


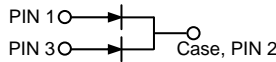
Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Profile Package
- High Surge Current Capability
- Low Power Loss, High Efficiency
- Super-Fast Recovery Time
- Ideally Suited for Use in High Frequency SMPS, Inverters, and As Free Wheeling Diodes



Mechanical Data

- Case: DPAK/TO-252, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 0.3 grams (approx.)
- Mounting Position: Any
- Marking: Device Code, See Page 3
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 4**



| DPAK/TO-252 | | |
|----------------------|--------------|------|
| Dim | Min | Max |
| A | 6.05 | 6.70 |
| B | 5.05 | 5.55 |
| C | 2.10 | 2.50 |
| D | 1.05 | 1.25 |
| E | 5.48 | 6.20 |
| G | 2.55 | 3.40 |
| H | 0.55 | 0.90 |
| J | 0.40 | 0.60 |
| K | 0.95 | 1.60 |
| L | 0.45 | 0.55 |
| P | 2.30 Typical | |
| All Dimensions in mm | | |

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic | Symbol | MURD620CT | MURD630CT | MURD640CT | MURD660CT | Unit |
|---|-----------------------------------|-------------|-----------|-----------|-----------|------|
| Peak Repetitive Reverse Voltage | V _{RRM} | | | | | |
| Working Peak Reverse Voltage | V _{RWM} | 200 | 300 | 400 | 600 | V |
| DC Blocking Voltage | V _R | | | | | |
| RMS Reverse Voltage | V _{R(RMS)} | 140 | 210 | 280 | 420 | V |
| Average Rectified Output Current @T _C = 100°C | I _O | 6.0 3.0 | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) | I _{FSM} | 75 | | | | A |
| Forward Voltage per diode @I _F = 3.0A | V _{FM} | 0.95 | 1.3 | | 1.7 | V |
| Peak Reverse Current At Rated DC Blocking Voltage | I _{RM} | 10 500 | | | | μA |
| Reverse Recovery Time (Note 1) | t _{rr} | 35 | | | | nS |
| Typical Junction Capacitance (Note 2) | C _J | 85 | 50 | | | pF |
| Thermal Resistance Junction to Ambient (Note 3) | R _{JA} | 80 | | | | °C/W |
| Thermal Resistance Junction to Lead (Note 3) | R _{JC} | 9.0 | | | | |
| Operating and Storage Temperature Range | T _J , T _{STG} | -55 to +150 | | | | °C |

Note: 1. Measured with I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A.
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.
 3. Mounted on PCB with minimum recommended pad sizes per diode.

MURD620CT – MURD660CT

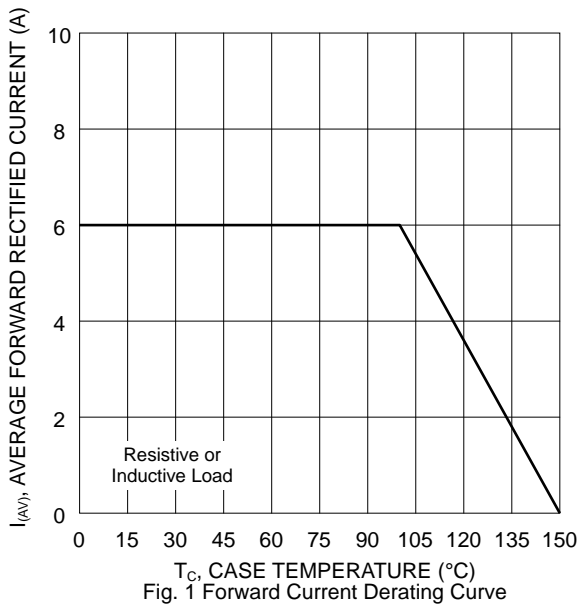


Fig. 1 Forward Current Derating Curve

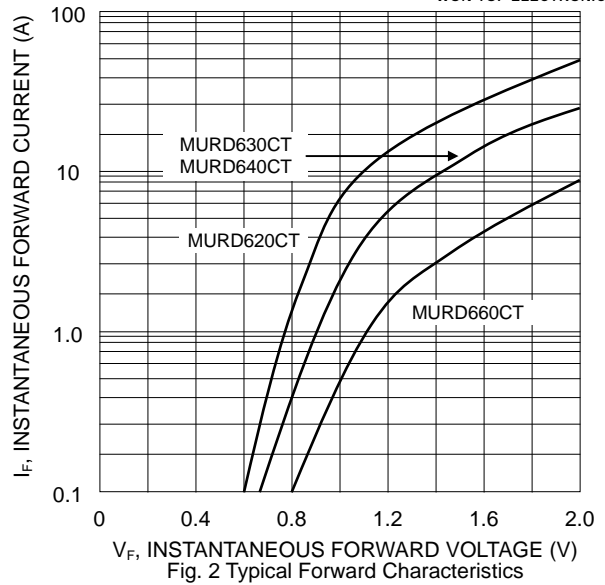


Fig. 2 Typical Forward Characteristics

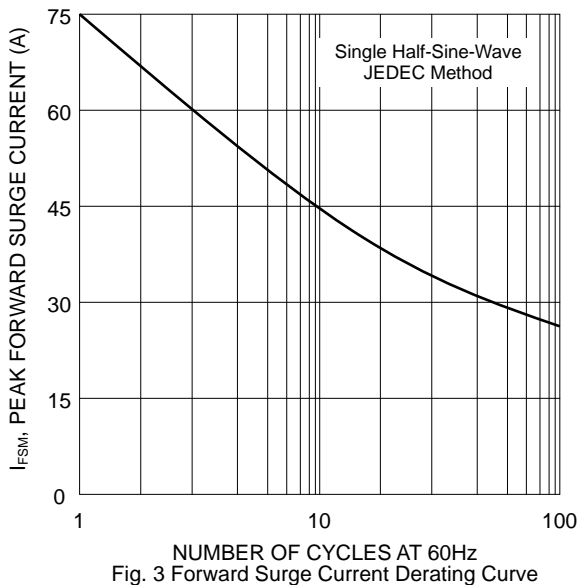


Fig. 3 Forward Surge Current Derating Curve

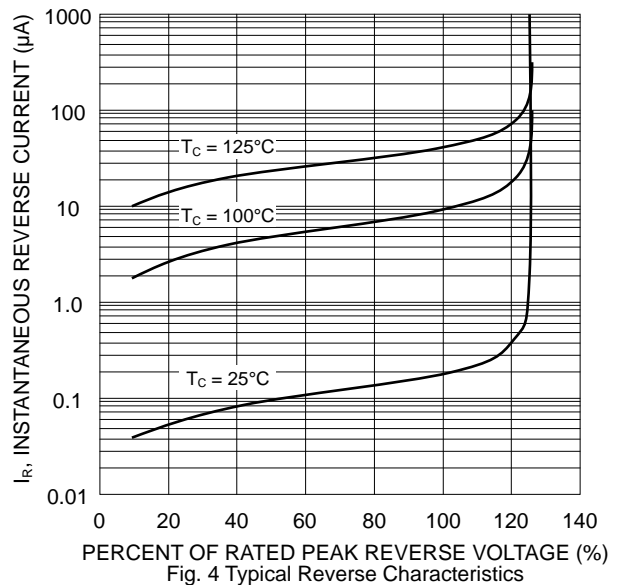


Fig. 4 Typical Reverse Characteristics

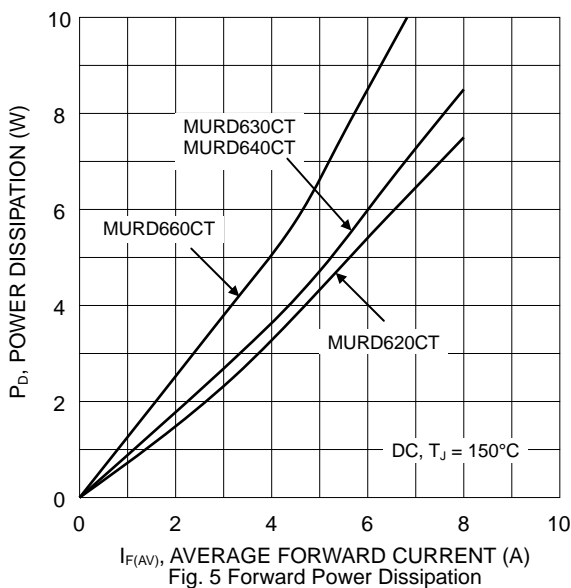


Fig. 5 Forward Power Dissipation

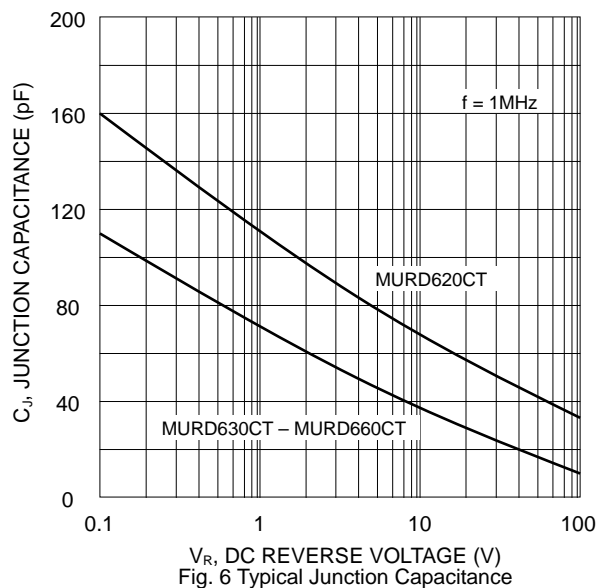


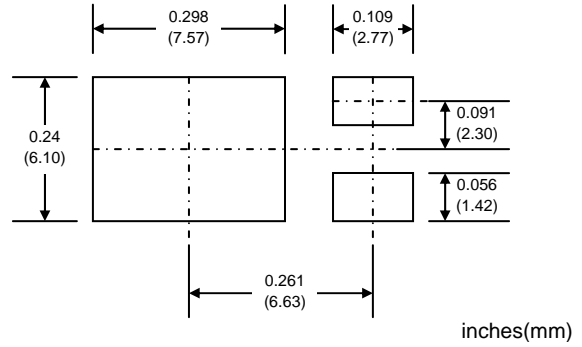
Fig. 6 Typical Junction Capacitance

MARKING INFORMATION



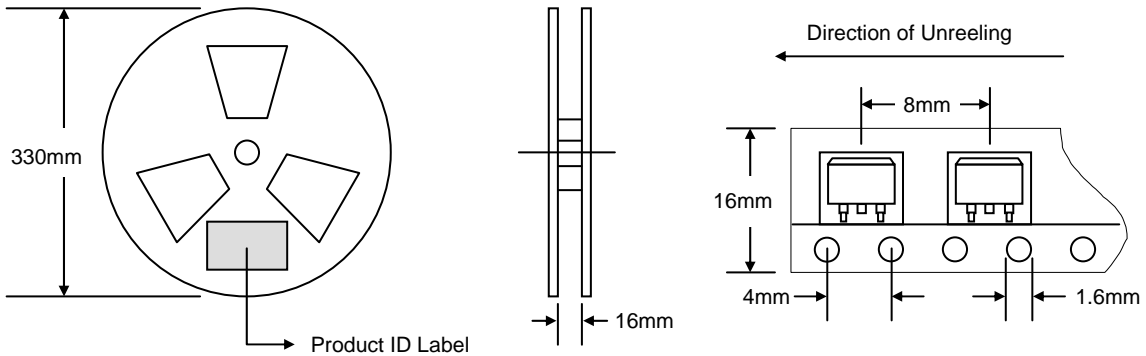
U6xxCT = Device Number
 xx = 20 (MURD620CT)
 30 (MURD630CT)
 40 (MURD640CT)
 60 (MURD660CT)
 Polarity = As Marked on Body

RECOMMENDED FOOTPRINT



PACKAGING INFORMATION

TAPE & REEL



| Reel Diameter (mm) | Quantity (PCS) | Inner Box Size L x W x H (mm) | Quantity (PCS) | Carton Size L x W x H (mm) | Quantity (PCS) | Approx. Gross Weight (KG) |
|--------------------|----------------|-------------------------------|----------------|----------------------------|----------------|---------------------------|
| 330 | 2,500 | 340 x 337 x 45 | 5,000 | 370 x 370 x 420 | 40,000 | 18.0 |

Note: 1. Paper reel, white or gray color.
 2. Components are packed in accordance with EIA standard 481-1 and 481-2.

ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|--------------|--------------|-------------------|
| MURD620CT-T3 | DPAK | 2500/Tape & Reel |
| MURD630CT-T3 | DPAK | 2500/Tape & Reel |
| MURD640CT-T3 | DPAK | 2500/Tape & Reel |
| MURD660CT-T3 | DPAK | 2500/Tape & Reel |

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, MURD620CT-T3-LF.**

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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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