

# MURD1020CT – MURD1060CT

10A SURFACE MOUNT GLASS PASSIVATED DUAL SUPERFAST RECTIFIER

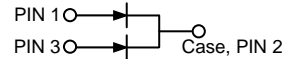
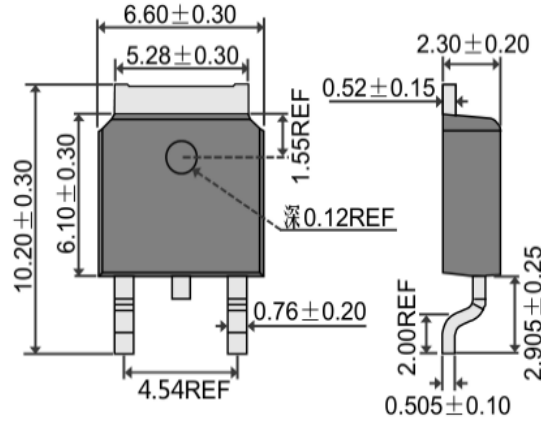
## Features

- Fred Chip Planar 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**

## DPAK/TO-252



## Maximum Ratings and Electrical Characteristics @<sub>T<sub>A</sub></sub>=25°C unless otherwise specified

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

Characteristic	Symbol	MURD 1020CT	MURD 1030CT	MURD 1040CT	MURD 1060CT	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>					
Working Peak Reverse Voltage	V <sub>RWM</sub>	200	300	400	600	V
DC Blocking Voltage	V <sub>R</sub>					
RMS Reverse Voltage	V <sub>R(RMS)</sub>	140	210	280	420	V
Average Rectified Output Current @T <sub>C</sub> = 100°C	I <sub>O</sub>	10 5.0				A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	100				A
Forward Voltage per diode @I <sub>F</sub> = 5.0A	V <sub>FM</sub>	0.95	1.3		1.7	V
Peak Reverse Current At Rated DC Blocking Voltage	I <sub>RM</sub>		10 500			μA
Reverse Recovery Time (Note 1)	t <sub>rr</sub>	35		50		nS
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	70		50		pF
Thermal Resistance Junction to Ambient (Note 3)	R <sub>JA</sub>	80				°C/W
Thermal Resistance Junction to Lead (Note 3)	R <sub>JC</sub>	6.5				
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150				°C

Note: 1. Measured with I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>RR</sub> = 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.



# MURD1020CT – MURD1060CT

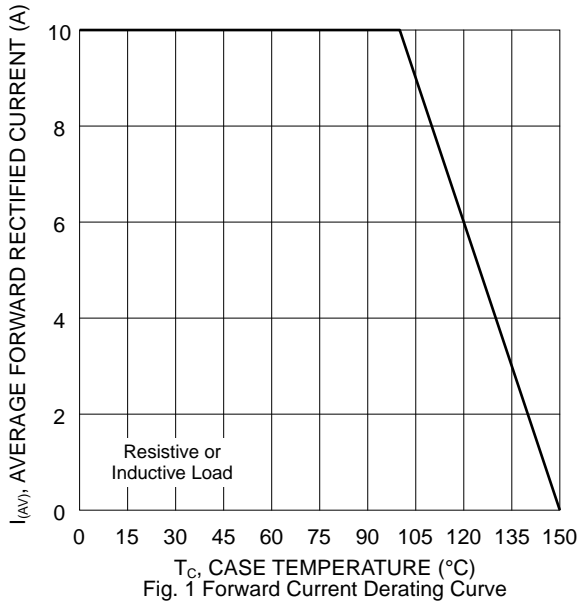


Fig. 1 Forward Current Derating Curve

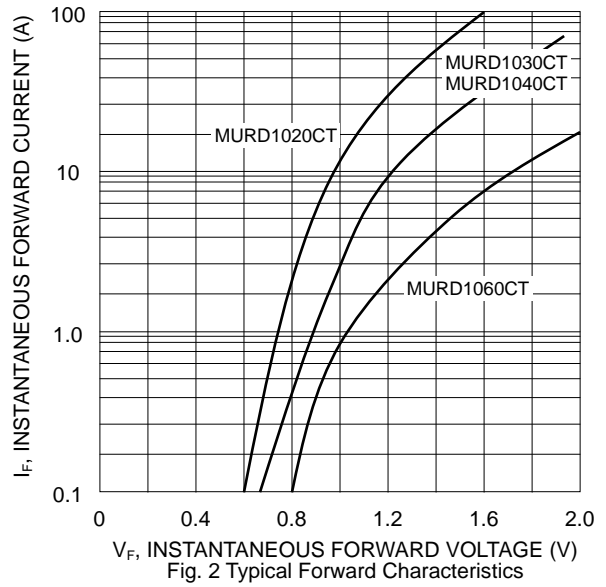


Fig. 2 Typical Forward Characteristics

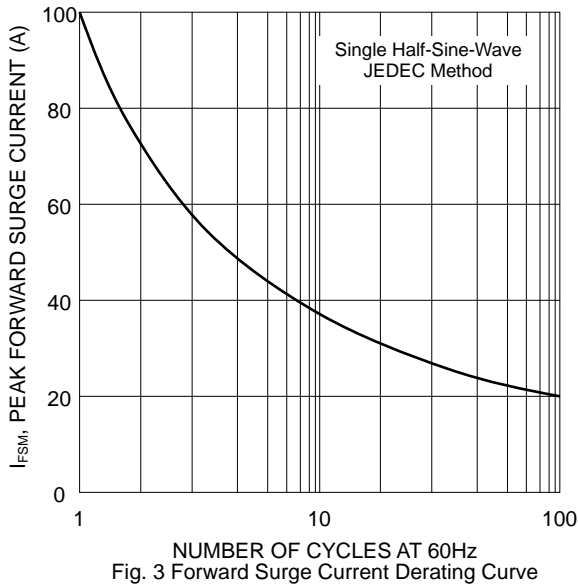


Fig. 3 Forward Surge Current Derating Curve

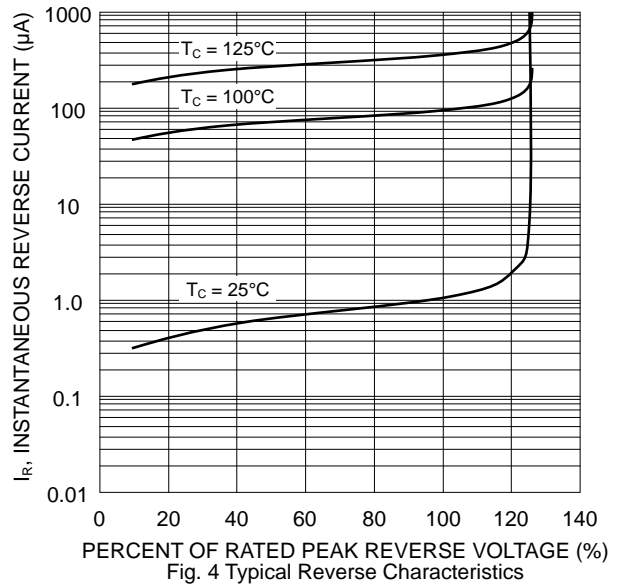


Fig. 4 Typical Reverse Characteristics

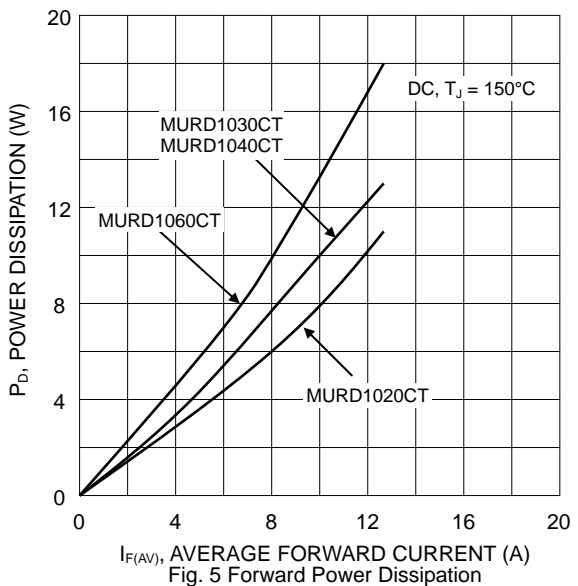


Fig. 5 Forward Power Dissipation

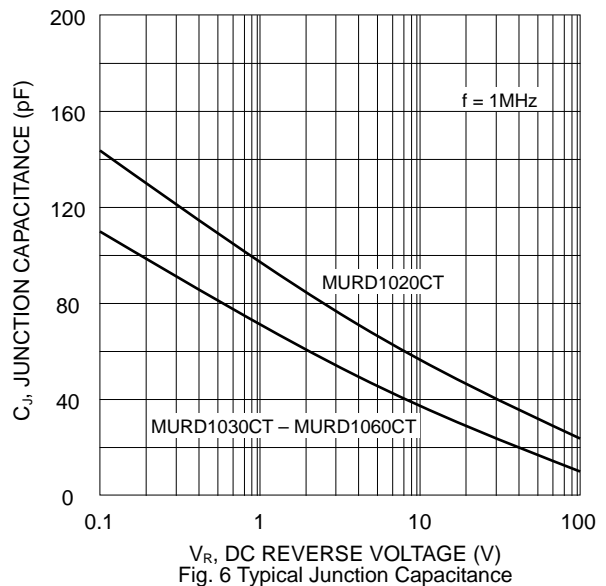
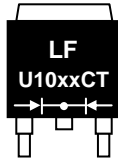


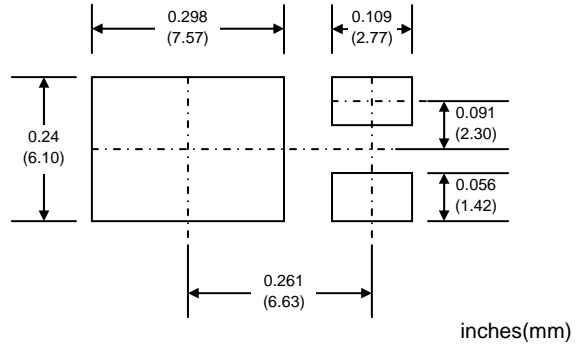
Fig. 6 Typical Junction Capacitance

## MARKING INFORMATION



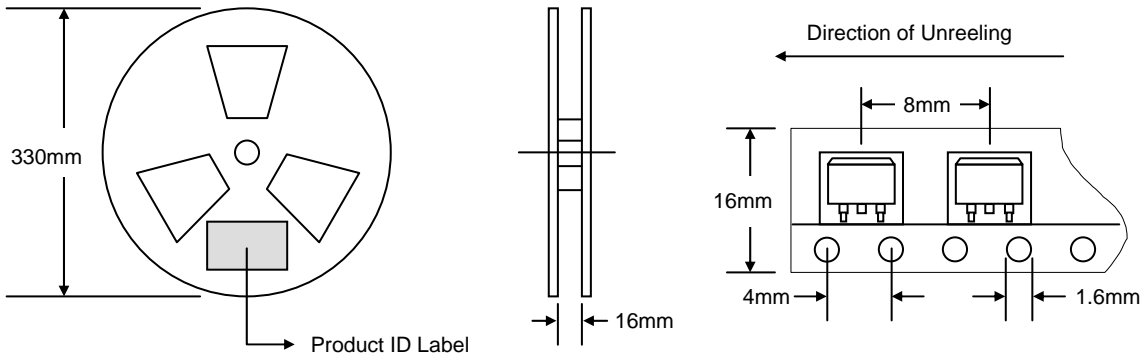
U10xxCT = Device Number  
 xx = 20 (MURD1020CT)  
       30 (MURD1030CT)  
       40 (MURD1040CT)  
       60 (MURD1060CT)  
 Polarity = As Marked on Body

## 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