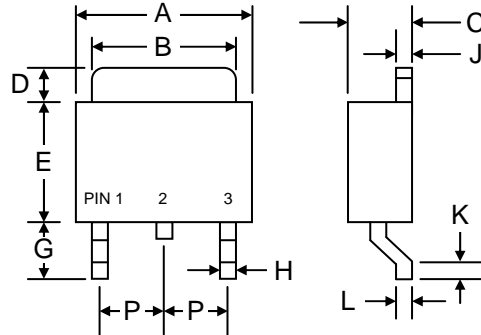


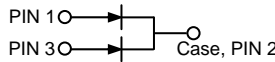
Features

- 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 @ $T_A=25^\circ\text{C}$ 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_{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 @ $T_C = 100^\circ\text{C}$	I_O		10			A
Total Device Per Diode			5.0			
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}		100			A
Forward Voltage per diode @ $I_F = 5.0\text{A}$	V_{FM}	0.95	1.3		1.7	V
Peak Reverse Current At Rated DC Blocking Voltage	I_{RM}		10			μA
			500			
Reverse Recovery Time (Note 1)	t_{rr}	35		50		nS
Typical Junction Capacitance (Note 2)	C_J	70		50		pF
Thermal Resistance Junction to Ambient (Note 3)	R_{JA}		80			$^\circ\text{C/W}$
Thermal Resistance Junction to Lead (Note 3)	R_{JC}		6.5			
Operating and Storage Temperature Range	T_J, T_{STG}		-55 to +150			$^\circ\text{C}$

Note: 1. Measured with $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$.
 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

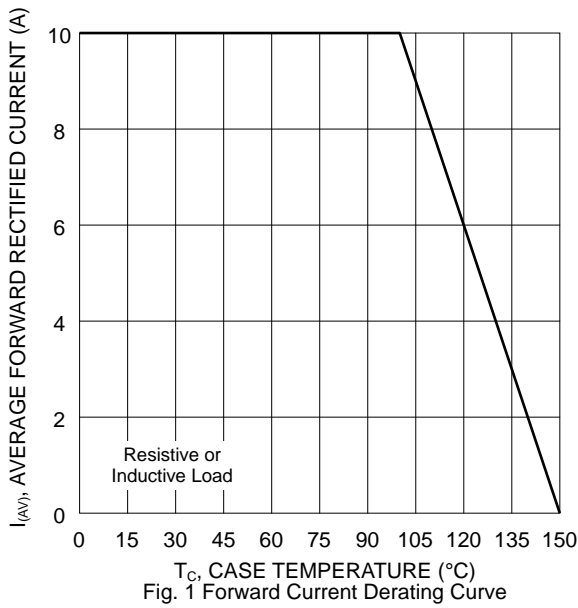


Fig. 1 Forward Current Derating Curve

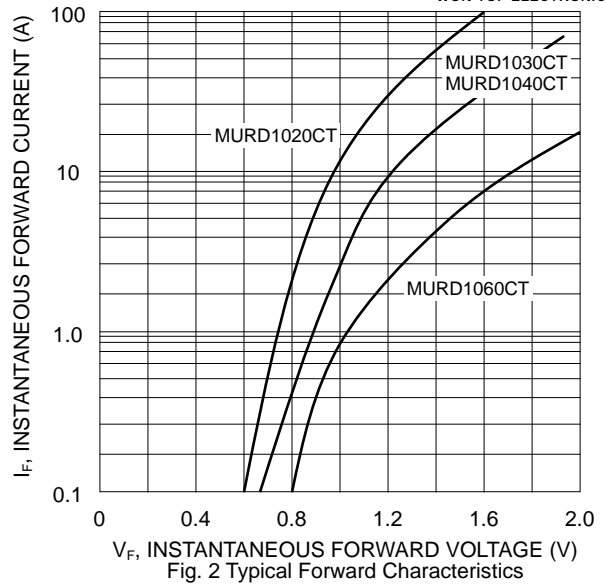


Fig. 2 Typical Forward Characteristics

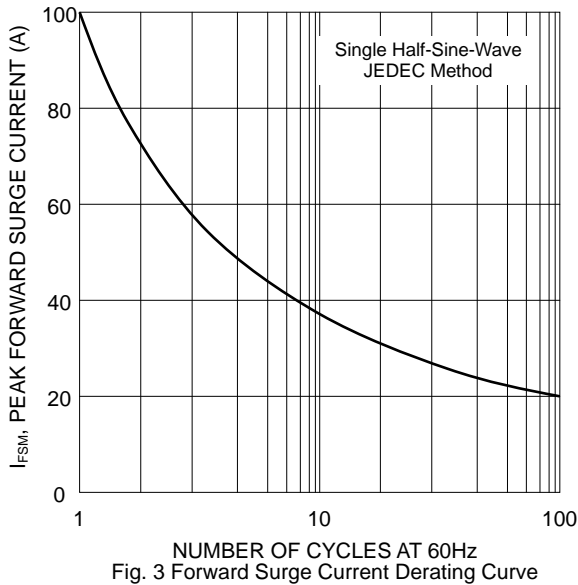


Fig. 3 Forward Surge Current Derating Curve

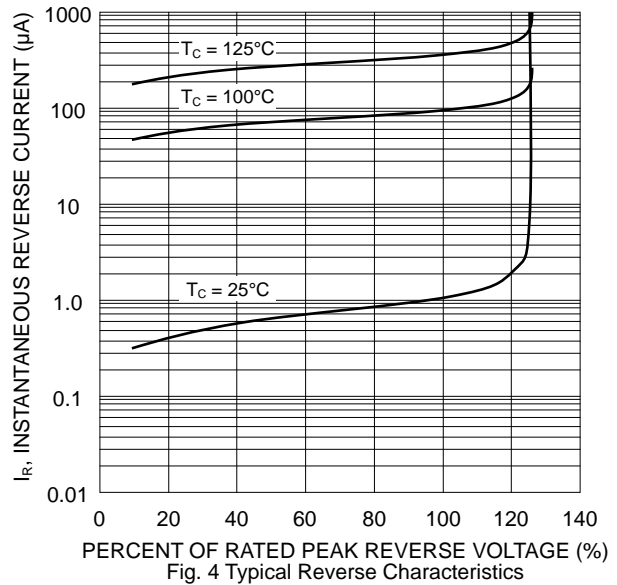


Fig. 4 Typical Reverse Characteristics

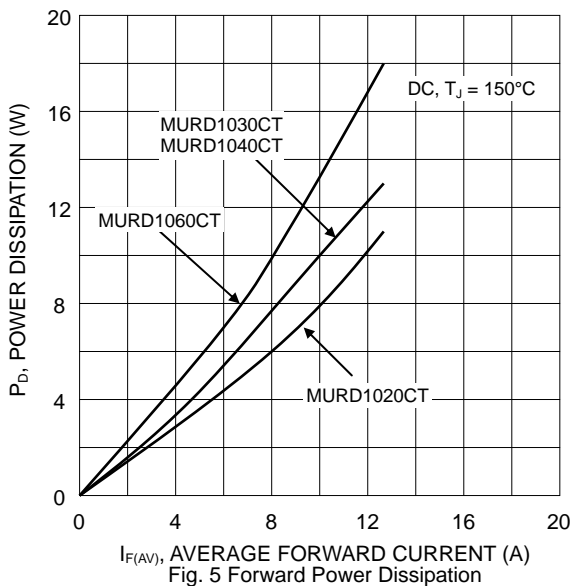


Fig. 5 Forward Power Dissipation

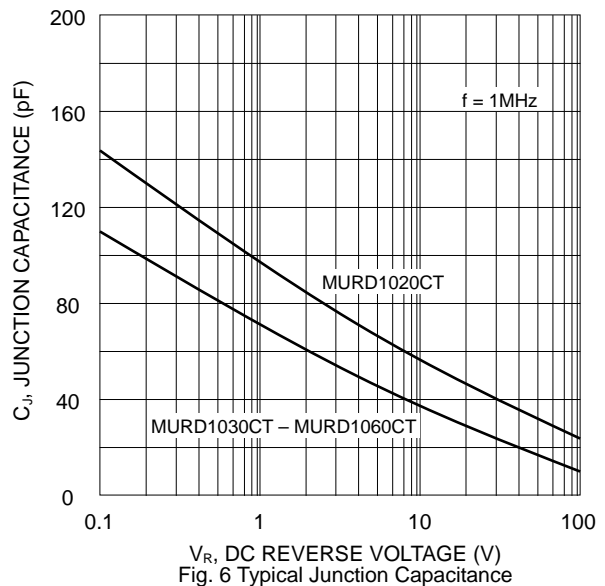
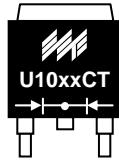


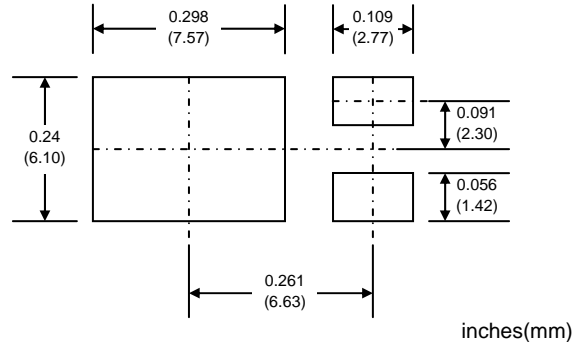
Fig. 6 Typical Junction Capacitance

MARKING INFORMATION



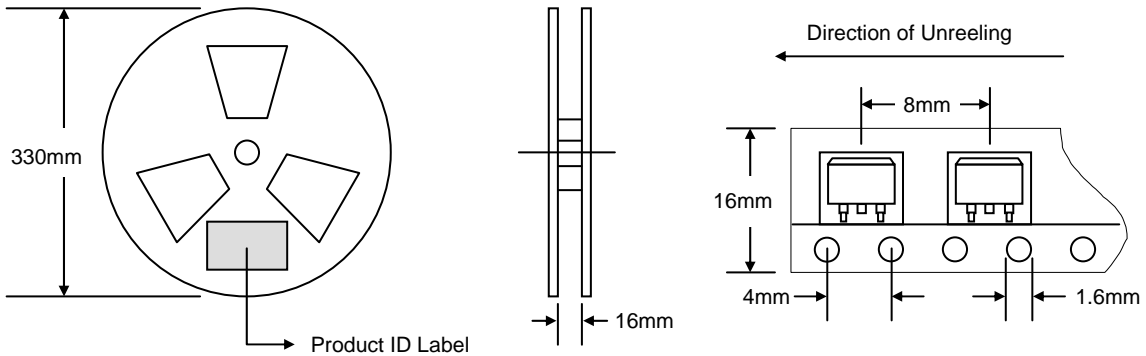
U10xxCT = Device Number
 xx = 20 (MURD1020CT)
 30 (MURD1030CT)
 40 (MURD1040CT)
 60 (MURD1060CT)
 Polarity = As Marked on Body

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

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
MURD1020CT-T3	DPAK	2500/Tape & Reel
MURD1030CT-T3	DPAK	2500/Tape & Reel
MURD1040CT-T3	DPAK	2500/Tape & Reel
MURD1060CT-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, MURD1020CT-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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We power your everyday.