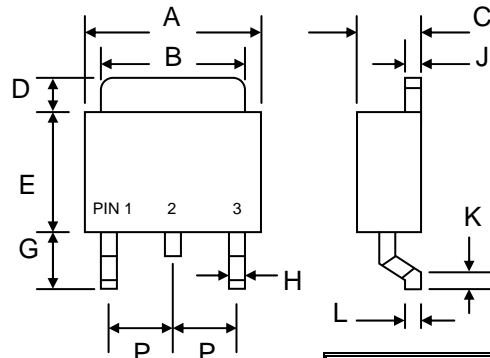


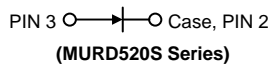
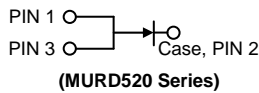
## Features

- 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	6.65
B	5.05	5.55
C	2.25	2.40
D	1.05	1.25
E	5.48	6.08
G	2.55	3.00
H	0.55	0.90
J	0.49	0.55
K	0.95	1.25
L	0.49	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	MURD520/S	MURD530/S	MURD540/S	MURD560/S	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 @ $T_C = 100^\circ\text{C}$	$I_O$	5.0				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 @ $I_F = 5.0\text{A}$	$V_{FM}$	0.95	1.25		1.7	V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	$I_{RM}$		5.0 500			$\mu\text{A}$
Reverse Recovery Time (Note 1)	$t_{rr}$		35			nS
Typical Junction Capacitance (Note 2)	$C_J$		45			pF
Thermal Resistance Junction to Ambient (Note 3)	$R_{JA}$		49			$^\circ\text{C/W}$
Thermal Resistance Junction to Lead (Note 3)	$R_{JC}$		2.0			$^\circ\text{C/W}$
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 700mm<sup>2</sup> copper pads.

# MURD520/S – MURD560/S

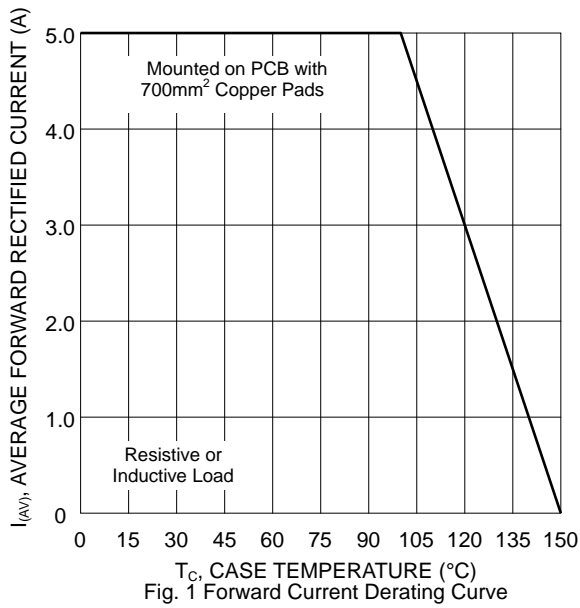


Fig. 1 Forward Current Derating Curve

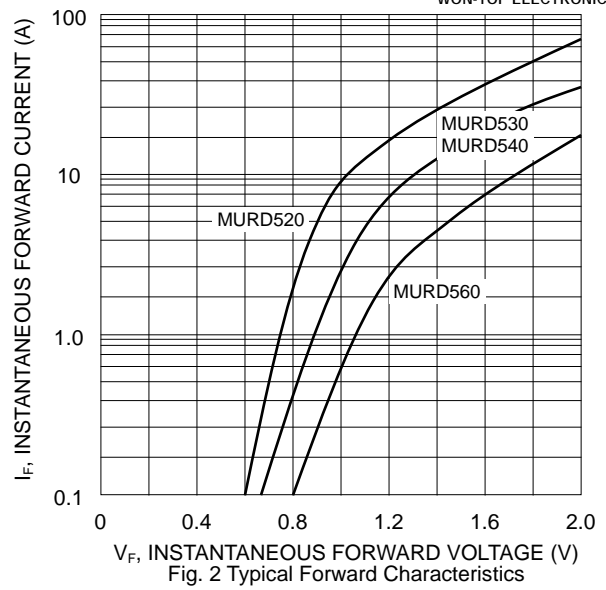


Fig. 2 Typical Forward Characteristics

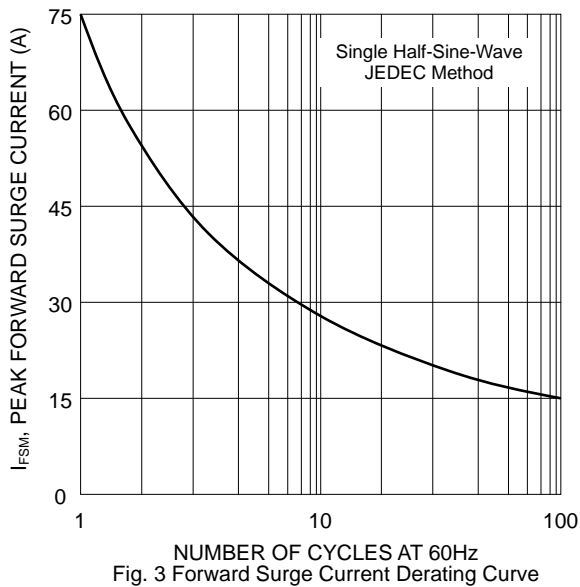


Fig. 3 Forward Surge Current Derating Curve

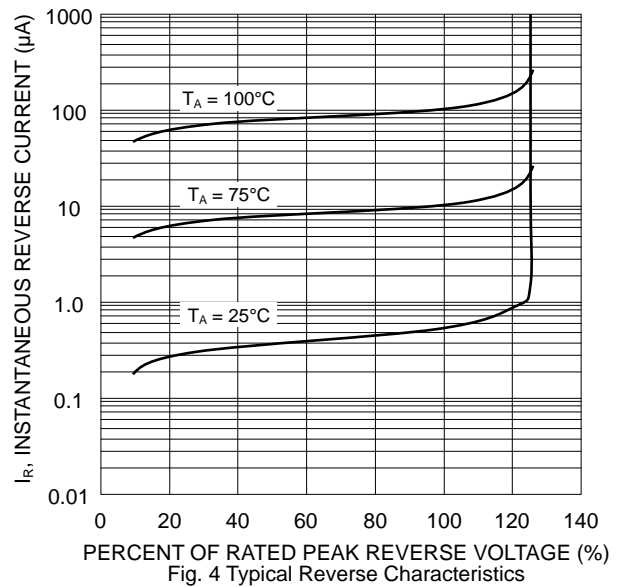


Fig. 4 Typical Reverse Characteristics

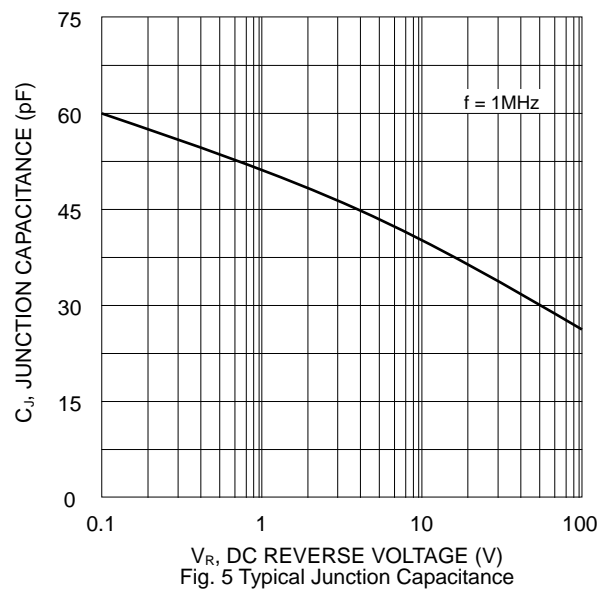
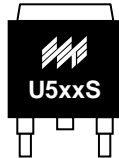


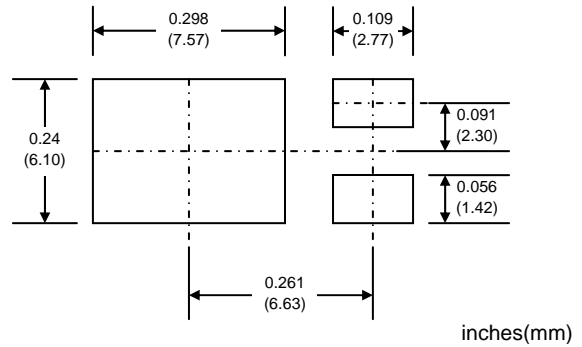
Fig. 5 Typical Junction Capacitance

## MARKING INFORMATION



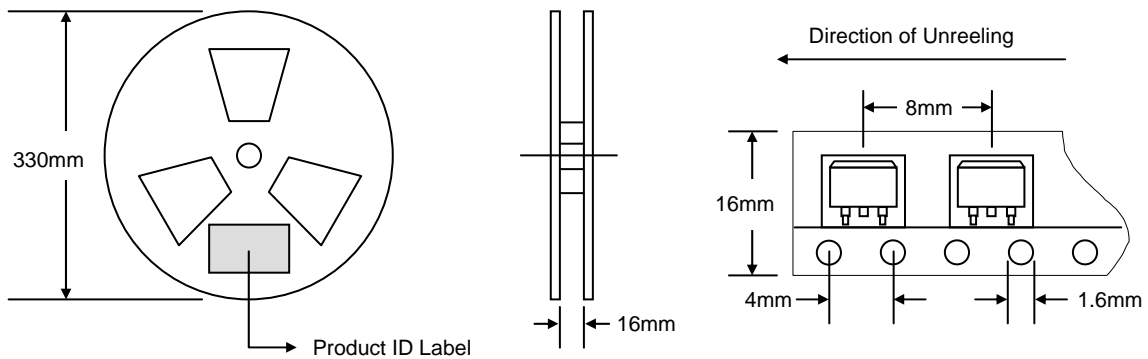
U5xx = Device Number  
 xx = 20 (MURD520)  
       30 (MURD530)  
       40 (MURD540)  
       60 (MURD560)  
 S = Suffix for MURD520S Series (remove when ordering MURD520 series)

## 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
MURD520/S-T3	DPAK	2500/Tape & Reel
MURD530/S-T3	DPAK	2500/Tape & Reel
MURD540/S-T3	DPAK	2500/Tape & Reel
MURD560/S-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, MURD520-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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**Email:** sales@wontop.com  
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*We power your everyday.*