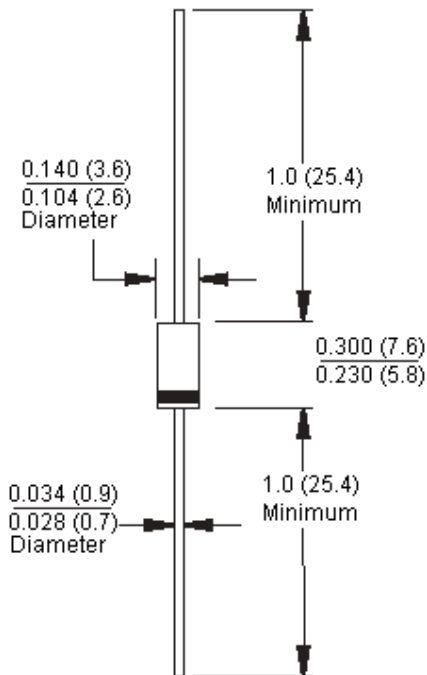




### Features:

- Designed for use in switching power supplies, inverters and as free wheeling diodes.
- High efficiency, low  $V_F$ .
- High reliability.
- Ultrafast recovery time for high efficiency.
- 175°C operating junction temperature.

### DO-15 / DO-204AC



Dimensions : Inches (Millimetres)

### Mechanical Data:

Cases	: Moulded plastic.
Lead	: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed.
Polarity	: Colour band denotes cathode end.
High temperature soldering guaranteed	: 260°C/10 seconds/0.375 inch, (9.5mm) lead lengths at 5lbs., (2.3kg) tension.
Weight	: 0.34 grams.

## Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Type Number	Symbol	MUR160	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	600	V
Maximum RMS Voltage	$V_{RMS}$	420	
Maximum DC Blocking Voltage	$V_{DC}$	600	
Maximum Average Forward Rectified Current (Square Wave Note 4) at $T_A = 80^\circ\text{C}$	$I_{(AV)}$	1.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	35	
Maximum Instantaneous Forward Voltage at 1.0A $T_j = 150^\circ\text{C}$ $T_j = 25^\circ\text{C}$	$V_F$	1.05 1.25	V
Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 125^\circ\text{C}$	$I_R$	5.0 150	$\mu\text{A}$ $\mu\text{A}$
Maximum Reverse Recovery Time at (Note 2)	$T_{rr}$	50	nS
Typical Junction Capacitance ( Note 1)	$C_J$	27	pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	50	$^\circ\text{C}/\text{W}$
Operating Temperature Range	$T_J$	-65 to +175	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$		

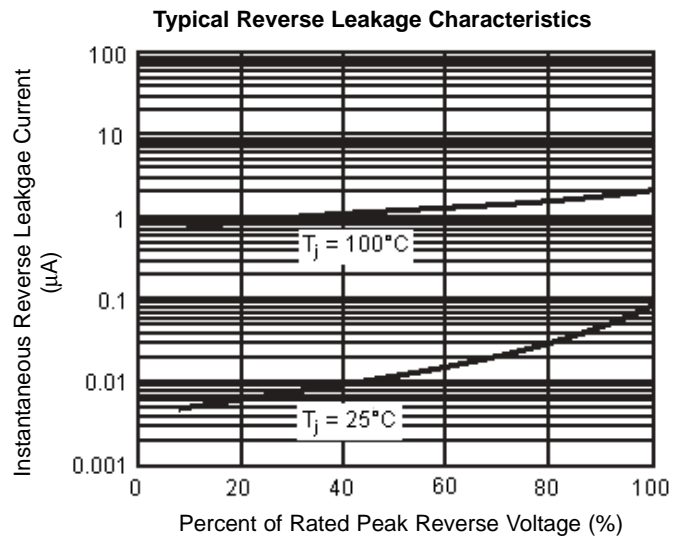
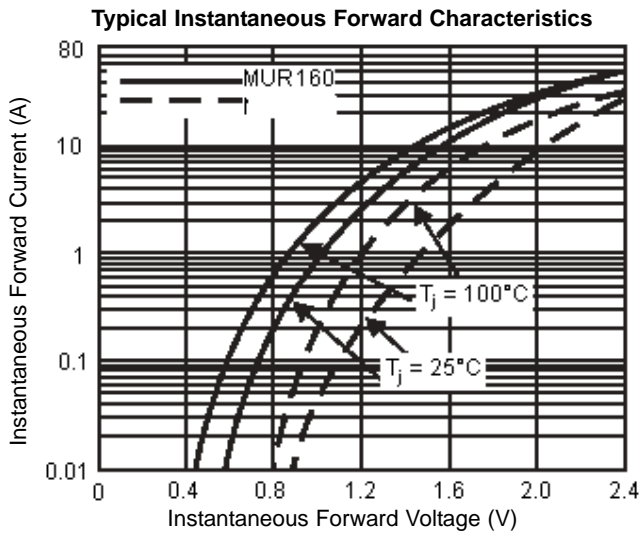
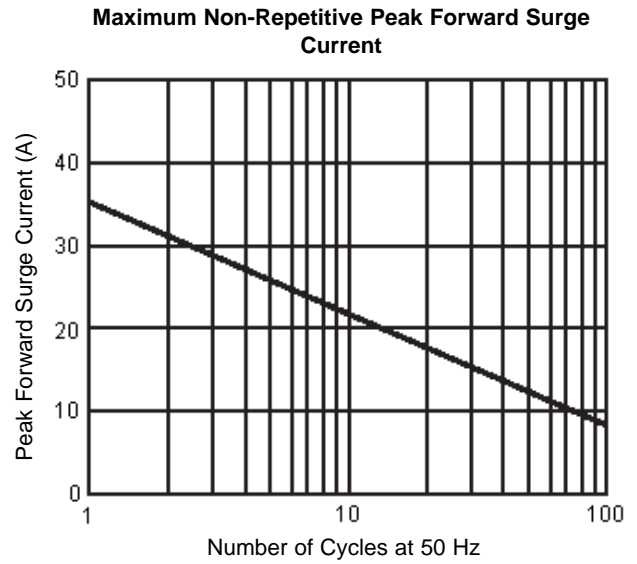
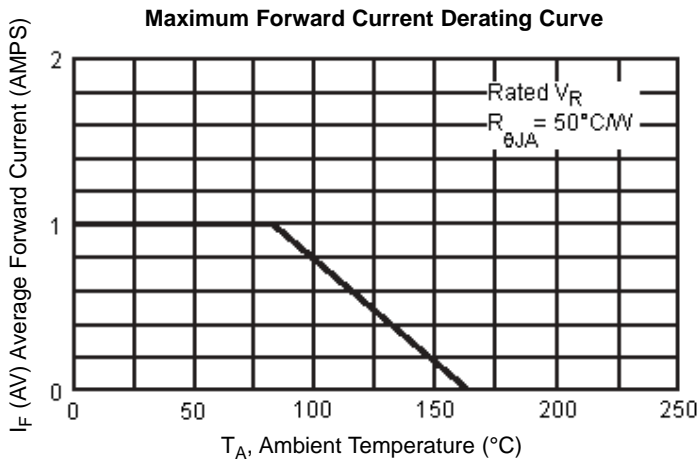
Notes: 1. Measured at 1MHz and Applied Reverse Voltage of 4.0 Volts DC.

2. Reverse Recovery Test Conditions:  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{RR} = 0.25\text{A}$ .

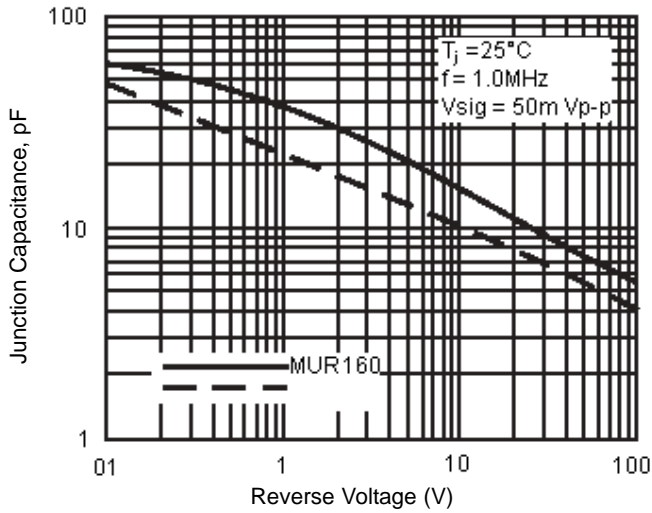
3. Thermal Resistance from Junction to Ambient, with Units Mounted on PC Board with 0.2 x 0.2 inches Copper Surface.

4. Pulse Test: Pulse Width = 300 $\mu\text{s}$ , Duty Cycle ?2.0%.

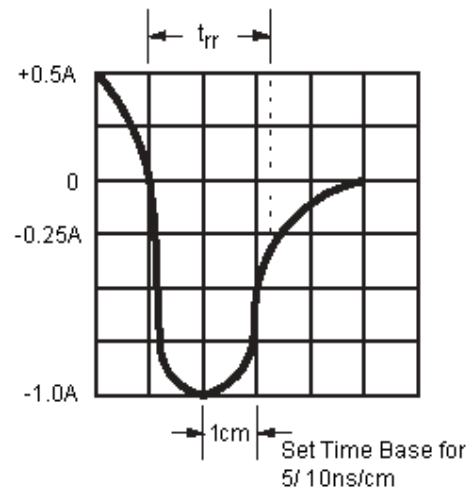
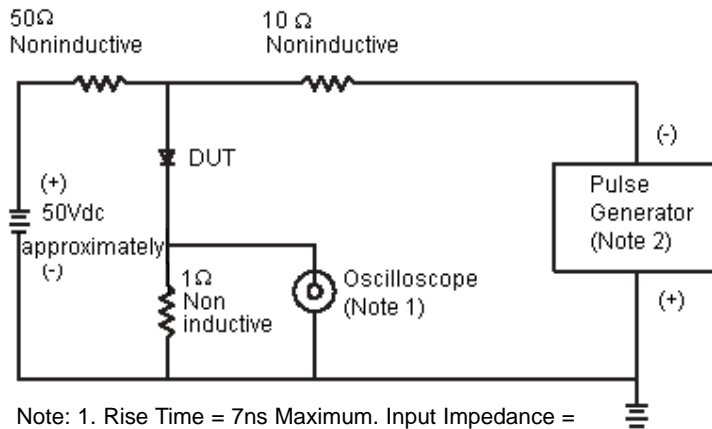
## Ratings and Characteristic Curves (MUR160)



### Typical Junction Capacitance



### Reverse Recovery Time Characteristic and Test Circuit Diagram



- Note: 1. Rise Time = 7ns Maximum. Input Impedance = 1 Megohm 22pf  
 2. Rise Time = 10ns Maximum Source Impedance = 50 ohms

### Part Number Table

Description	Part Number
Diode, Fast, 1A, 600V	MUR160

## Notes:

## International Sales Offices:

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