

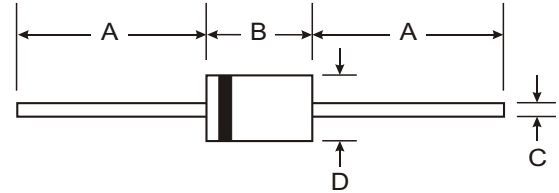
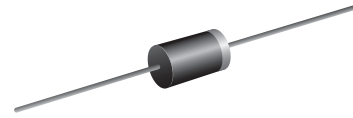
**VOLTAGE RANGE: 50 - 600 V**  
**CURRENT: 1.0 A**

### Features

- Low cost
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with alcohol, Isopropanol and similar solvents
- The plastic material carries U/L recognition 94V-0

### Mechanical Data

- Case: DO-41, molded plastic
- Terminals: Axial lead, solderable per
- MIL-STD-202, Method 208
- Polarity: Color band denotes cathode
- Weight: 0.012 ounces, 0.34 grams
- Mounting position: Any



DO-41		
Dim	Min	Max
A	25.40	—
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
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%.

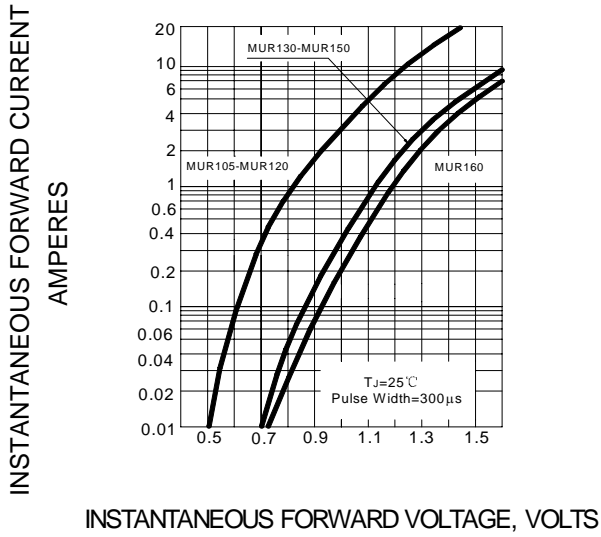
Characteristic	Symbol	MUR 105	MUR 110	MUR 115	MUR 120	MUR 130	MUR 140	MUR 150	MUR 160	UNITS	
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	150	200	300	400	500	600	V	
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	210	280	350	420	V	
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	300	400	500	600	V	
Maximum average forward rectified current 9.5mm lead length, @ $T_A = 75^\circ\text{C}$	$I_{F(AV)}$	1.0								A	
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J = 125^\circ\text{C}$	$I_{FSM}$	35.0								A	
Maximum instantaneous forward voltage @ 1.0A	$V_F$	0.875			1.2			1.25		V	
Maximum reverse current @ $T_A = 25^\circ\text{C}$ at rated DC blocking voltage @ $T_A = 100^\circ\text{C}$	$I_R$	10.0				100.0					$\mu\text{A}$
Maximum reverse recovery time (Note1)	$t_{rr}$	25				50					ns
Typical junction capacitance (Note2)	$C_J$	22									pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	50									$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_J$	- 55 ----- + 150									$^\circ\text{C}$
Storage temperature range	$T_{STG}$	- 55 ----- + 150									$^\circ\text{C}$

NOTE: 1. Measured with  $I_F = 0.5\text{A}$ ,  $I_R = 1\text{A}$ ,  $t_{rr} = 0.25\text{A}$ .

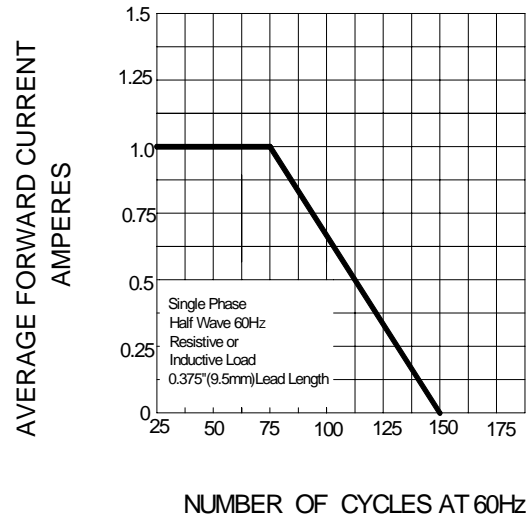
2. Measured at 1.0MHz and applied reverse voltage of 4.1V DC.

3. Thermal resistance from junction to ambient.

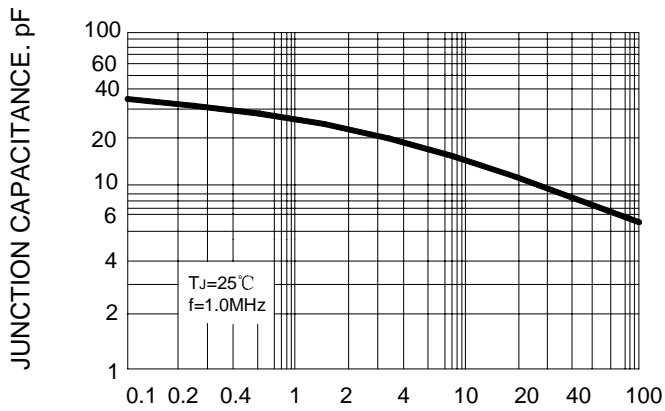
**FIG.1 – TYPICAL FORWARD CHARACTERISTICS**



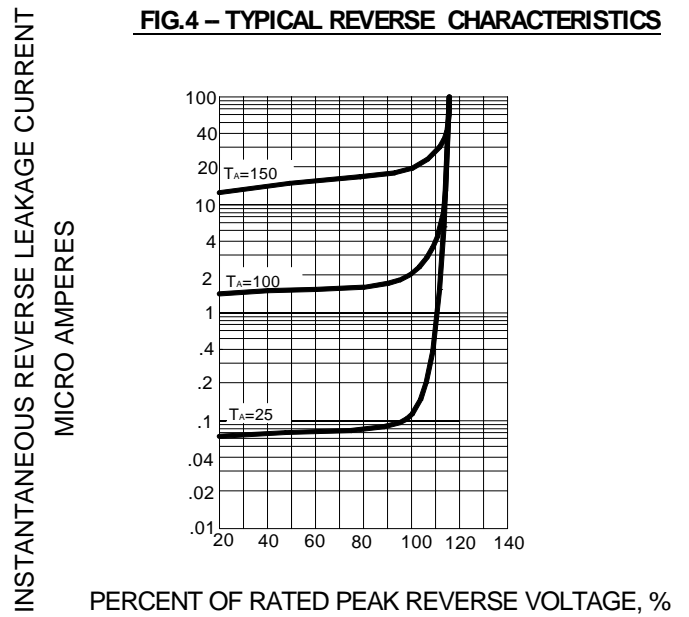
**FIG.2 – FORWARD DRATING CURVE**



**FIG.3 – TYPICAL JUNCTION CAPACITANCE**

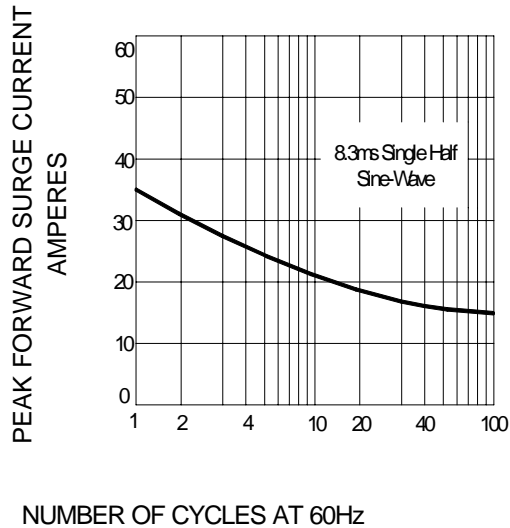


**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**

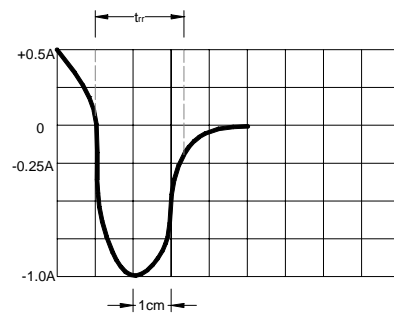
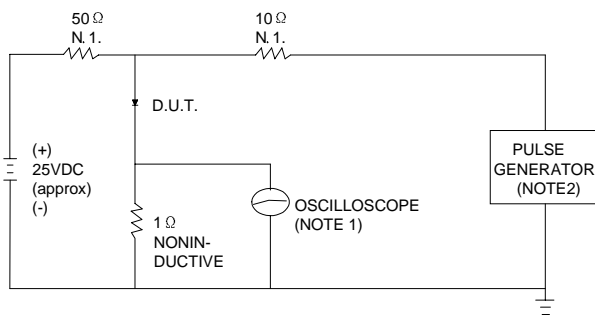




**FIG.5 – PEAK FORWARD SURGE CURRENT**



**FIG.6 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**



NOTES: 1. RISE TIME = 7ns MAX INPUT IMPEDANCE = 1MΩ .22pF.  
 2. RISE TIME = 10ns MAX SOURCE IMPEDANCE = 50 Ω.

SET TIME BASE FOR 10/20 ns/cm