

### Features

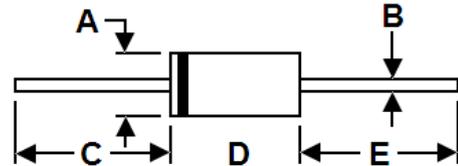
- \* Low Forward Voltage Drop
- \* High Current Capability
- \* High Reliability
- \* High Surge Current Capability
- \* High Temperature Glass Passivated Junction



**RoHS**  
COMPLIANT

### Package Outline Dimensions

DO-41:



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.0	2.7	0.078	0.107
B	0.7	0.9	0.027	0.035
C	25.4	-	1.0	-
D	4.2	5.2	0.165	0.205
E	25.4	-	1.0	-

### Mechanical Data

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting Position: Any

### Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

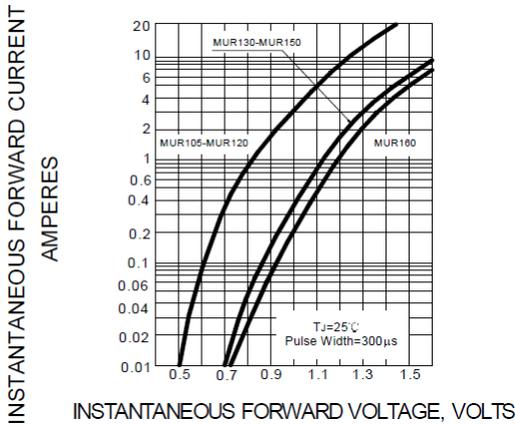
Type Number	Symbol	MUR 105	MUR 110	MUR 115	MUR 120	MUR 130	MUR 140	MUR 160	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	420	V
Maximum D.C Blocking Voltage	$V_{DC}$	105	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	35							A
Maximum Instantaneous Forward Voltage at 1.0A	$V_F$	0.875			1.25			V	
Maximum D.C Reverse Current @ $T_A=25^{\circ}C$ at Rated D.C Blocking Voltage @ $T_A=100^{\circ}C$	$I_R$	2.0			5.0			$\mu A$	
		50			150				
Maximum Reverse Recovery Time(Note1)	$T_{rr}$	25			50			nS	
Typical Junction Capacitance(Note2)	$C_J$	25							pF
Typical Thermal Resistance Junction To Ambient(Note3)	$R_{\theta JA}$	27			50			$^{\circ}C/W$	
Operating Junction and Storage Temperature Range	$T_J/T_{STG}$	-55 to +150							$^{\circ}C$

Note:1、 Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$ . 2、 Measured at 1MHz and Applied Reverse Voltage of 4.0V D.C.

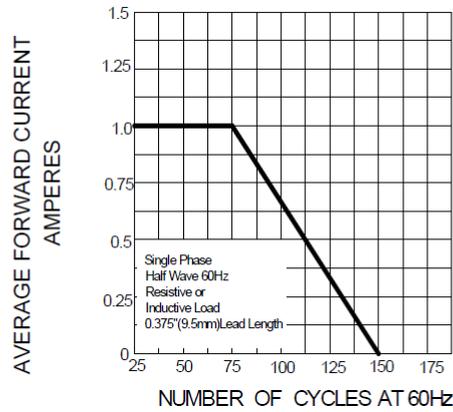
3、 Thermal Resistance from Junction to Ambient at 3/8"lead length, P.C. Board Mounted

### Ratings and Characteristic Curves

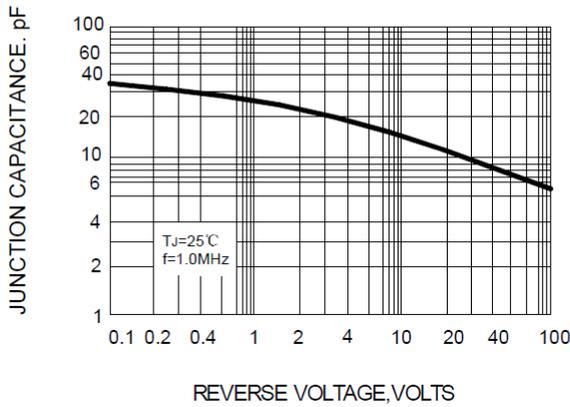
**FIG.1 – TYPICAL FORWARD CHARACTERISTICS**



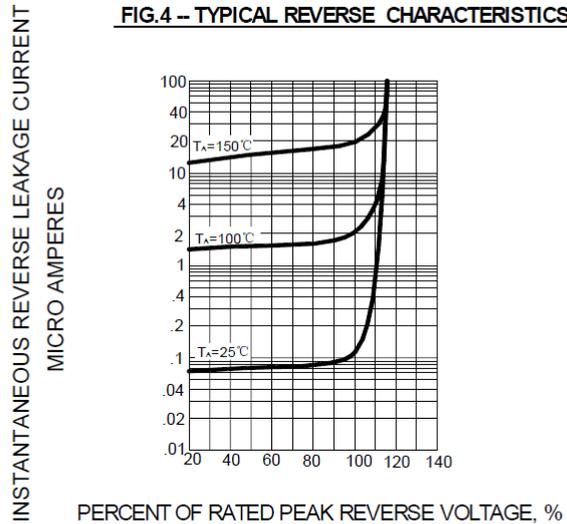
**FIG.2 – FORWARD DRATING CURVE**



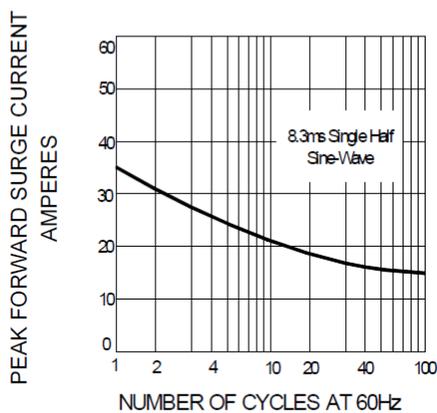
**FIG.3 – TYPICAL JUNCTION CAPACITANCE**



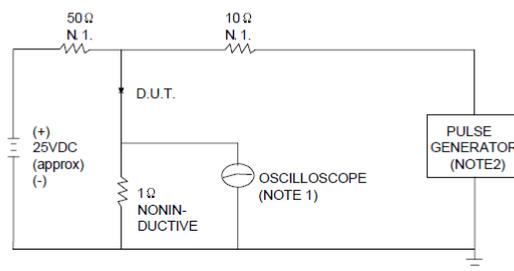
**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**



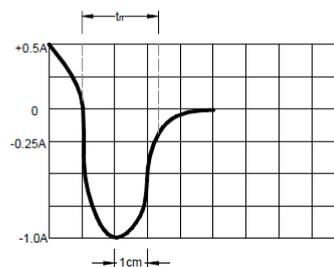
**FIG.5 – PEAK FORWARD SURGE CURRENT**



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



NOTES: 1. RISE TIME = 7ns MAX INPUT IMPEDANCE = 1M $\Omega$ . 22pF.  
2. RISE TIME = 10ns MAX SOURCE IMPEDANCE = 50  $\Omega$ .





## MUR105 THRU MUR160

1.0 Amp. Ultra Fast Rectifiers

### Ordering Information

Part No.	Package	Packing
MUR105~MUR160	DO-41	3K/AMMO box
MUR105~MUR160	DO-41	5K/AMMO box
MUR105~MUR160	DO-41	5K/13" Paper reel
MUR105~MUR160	DO-41	1K/Bulk packing