



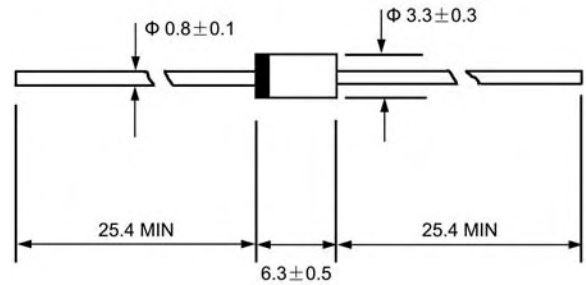
## Features

- ◇ Low cost
- ◇ Diffused junction
- ◇ Glass passivated chips
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with Freon, Alcohol, Isopropanol and similar solvents

## Mechanical Data

- ◇ Case: JEDEC DO-15, molded plastic
- ◇ Terminals: Axial leads, solderable per MIL-STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.014 ounces, 0.39grams
- ◇ Mounting: Any

## DO - 15



Dimensions in millimeters

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 50 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		1N5059	1N5060	1N5061	1N5062	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	200	400	600	800	V
Maximum RMS voltage	$V_{RMS}$	140	280	420	560	V
Maximum DC blocking voltage	$V_{DC}$	200	400	600	800	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=50^\circ C$	$I_{F(AV)}$	2.0				A
Peak forward surge current 10ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	$I_{FSM}$	50.0				A
Maximum instantaneous forward voltage @ 1.0A @ 2.5A	$V_F$	1.2 1.15				V
Maximum reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=150^\circ C$	$I_R$	5.0 100				$\mu A$
Maximum reverse recovery time (Note1)	$t_{rr}$	4.0				$\mu s$
Typical junction capacitance (Note2)	$C_j$	40				pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	45				K/W
Operating junction temperature range	$T_J$	- 55 ----- + 175				$^\circ C$
Storage temperature range	$T_{STG}$	- 55 ----- + 175				$^\circ C$

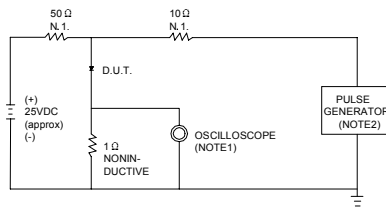
NOTE: 1. Measured with  $I_F=0.5A$ ,  $I_R=1A$ ,  $I_{rr}=0.25A$ .

2. Measured at 1.0MHz and applied reverse voltage of 0V DC.

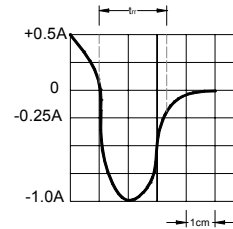
3. Thermal resistance from junction to ambient.

## Ratings AND Characteristic Curves

**FIG.1 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**

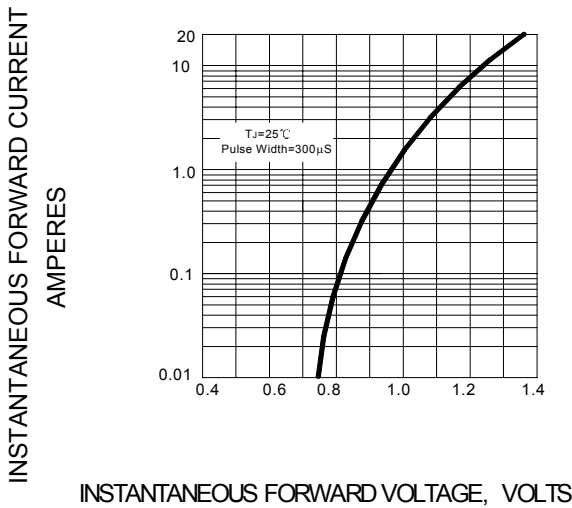


NOTES: 1. RISE TIME = 7ns MAX INPUT IMPEDANCE = 1MΩ, 22pF.  
 2. RISE TIME = 10ns MAX SOURCE IMPEDANCE = 50 Ω.

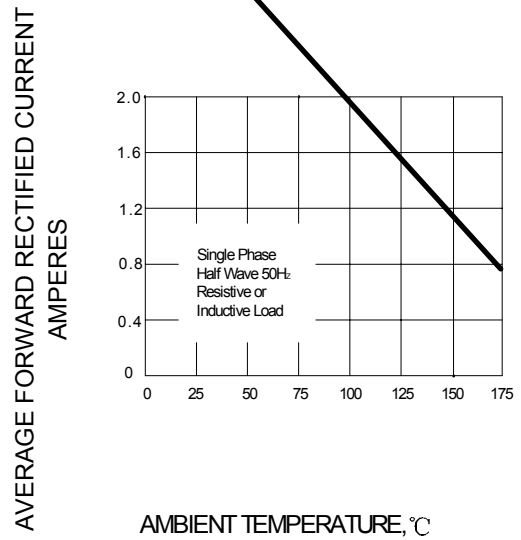


SET TIME BASE FOR 2.0μ s/cm

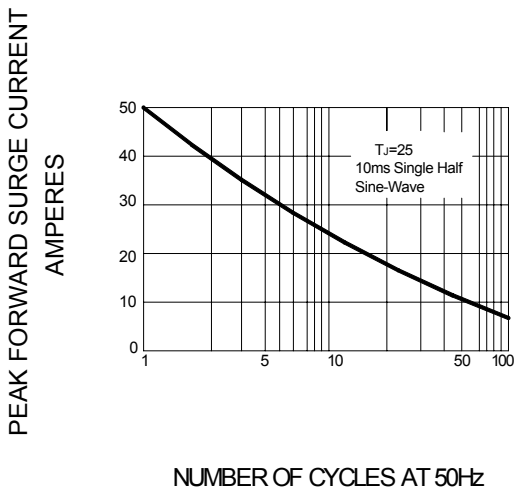
**FIG.2 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.3 – FORWARD DERATING CURVE**



**FIG.4 – PEAK FORWARD SURGE CURRENT**



**FIG.5 – TYPICAL JUNCTION CAPACITANCE**

