

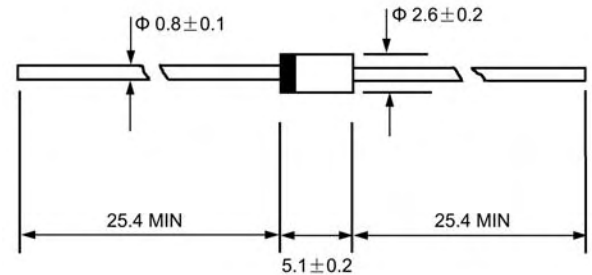
## Features

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with freon, alcohol, Isopropand and similar solvents
- ◇ The plastic material carries U/L recognition 94v-0

## Mechanical Data

- ◇ Case: JEDEC DO-41, molded plastic
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.012 ounces, 0.34grams
- ◇ Mounting: Any

### DO - 41



Dimensions in millimeters

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		EG01Y	EG01Z	EG01	EG01A	EG01C	UNITS
Maximum peak repetitive reverse voltage	$V_{RRM}$	70	200	400	600	1000	V
Maximum RMS voltage	$V_{RMS}$	49	140	280	420	700	V
Maximum DC blocking voltage	$V_{DC}$	70	200	400	600	1000	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ C$	$I_{F(AV)}$	1.0	0.7		0.5		A
Peak forward surge current 10ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	$I_{FSM}$	30.0	15.0		10.0		A
Maximum instantaneous forward voltage @ $I_F=I_{F(AV)}$	$V_F$	1.2	1.9	2.0		3.3	V
Maximum reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=100^\circ C$	$I_R$	0.1 0.5	0.05 0.30		0.1 0.5	0.05 0.50	mA
Maximum reverse recovery time (Note1)	$t_{rr}$	50					ns
Typical junction capacitance (Note2)	$C_J$	20			15		pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	60					$^\circ C/W$
Operating junction temperature range	$T_J$	- 55 --- + 150					$^\circ C$
Storage temperature range	$T_{STG}$	- 55 --- + 150					$^\circ C$

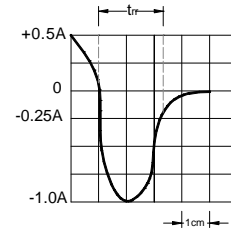
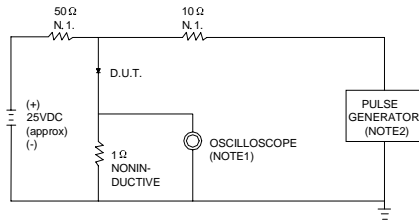
NOTE: 1. Measured with  $I_F=0.5A$ ,  $I_R=1A$ ,  $t_{rr}=0.5A$

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance from junction to ambient.

### Ratings AND Characteristic Curves

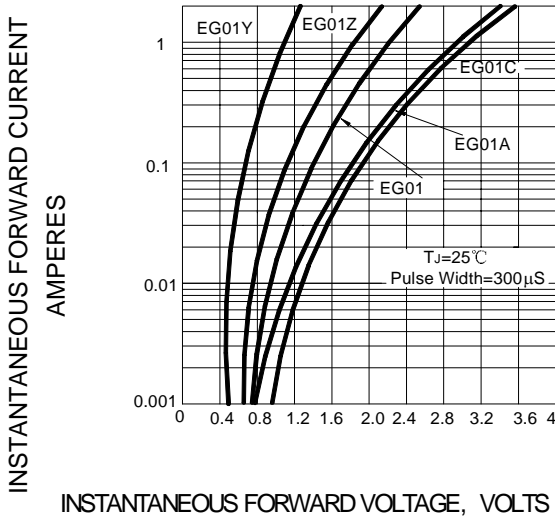
**FIG.1 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**



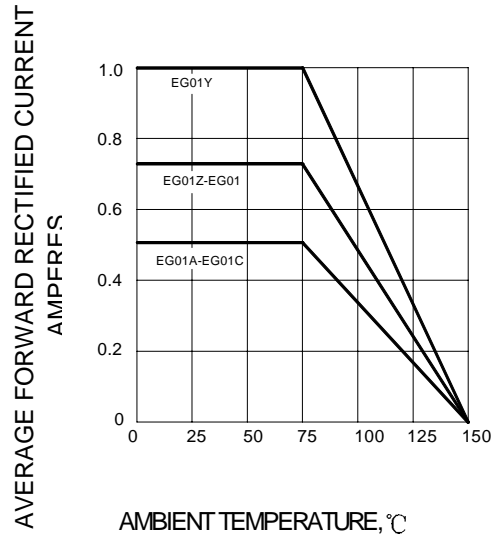
NOTES:1.RISE TIME = 7ns MAX INPUT IMPEDANCE =1MΩ. 22pF.  
2.RISE TIME =10ns MAX.SOURCE IMPEDANCE=50 Ω.

SET TIMEBASE FOR 10/20 ns/cm

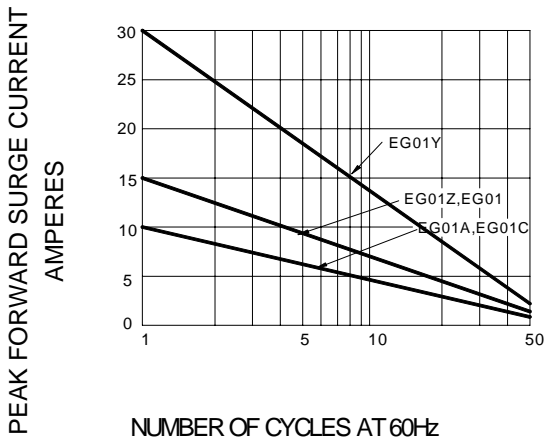
**FIG.2 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.3 – FORWARD DERATING CURVE**



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



**FIG.5-TYPICAL JUNCTION CAPACITANCE**

