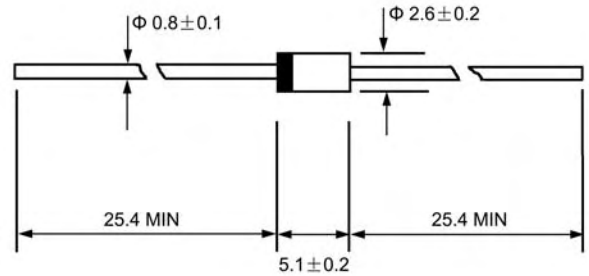




### DO - 41

### Features

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with freon, Alcohol, Isopropand and similar solvents



Dimensions in millimeters

### Mechanical Data

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

### 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%.

		EU01Z	EU01	EU01A	UNITS
Maximum peak repetitive reverse voltage	$V_{RRM}$	200	400	600	V
Maximum RMS voltage	$V_{RMS}$	140	280	420	V
Maximum DC blocking voltage	$V_{DC}$	200	400	600	V
Maximum average forward rectified current 9.5mm lead length @ $T_A=75^\circ C$	$I_{F(AV)}$	0.25			A
Peak forward surge current 10ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	$I_{FSM}$	15.0			A
Maximum instantaneous forward voltage @ 0.25A	$V_F$	2.5			V
Maximum reverse current @ $T_A=25^\circ C$ at Rated DC blocking voltage @ $T_A=100^\circ C$	$I_R$	10.0 150.0			$\mu A$
Maximum reverse recovery time (Note1)	$t_{rr}$	100			ns
Typical junction capacitance (Note2)	$C_J$	20	15		pF
Typical thermal resistance (Note3)	$R_{\theta JL}$	20			$^\circ C/W$
Operating junction temperature range	$T_J$	- 55 ----- + 150			$^\circ C$
Storage temperature range	$T_{STG}$	- 55 ----- + 150			$^\circ C$

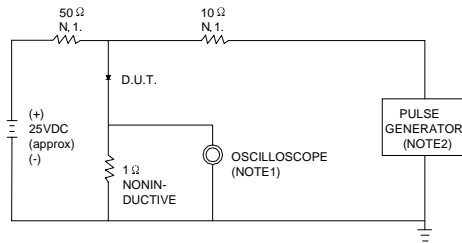
Note: 1. Measured with  $I_F=0.5A$ ,  $I_R=1A$ ,  $I_{rr}=0.25A$ .

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

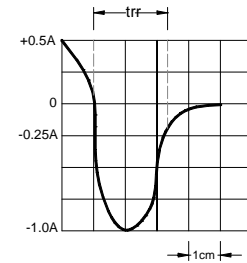
3. Thermal resistance from junction to ambient.

### Ratings AND Characteristic Curves

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

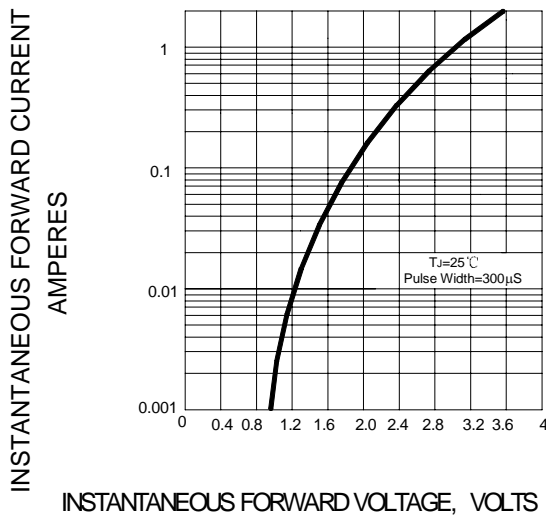


NOTES: 1. RISE TIME = 7ns MAX INPUT IMPEDANCE = 1MΩ, 22pF.  
2. RISE TIME = 10ns MAX SOURCE IMPEDANCE = 50 Ω.

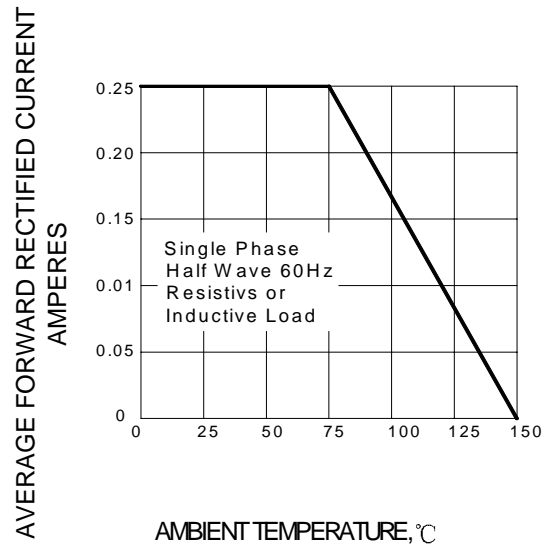


SET TIME BASE FOR 10/20 ns/cm

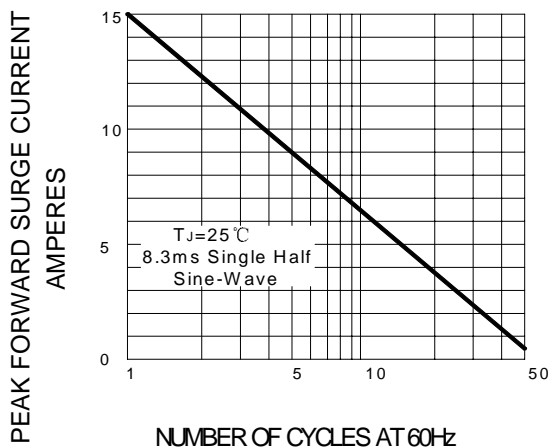
**FIG.2 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.3 – FORWARD DERATING CURVE**



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



**FIG.5 – TYPICAL JUNCTION CAPACITANCE**

