



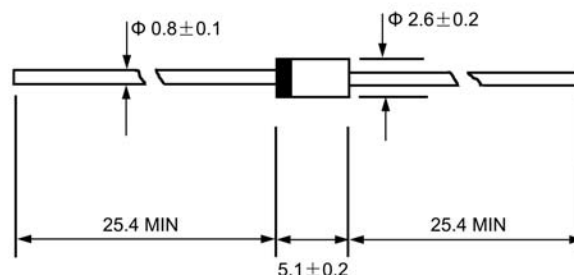
DO-41

Features

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

Mechanical Data

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



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%.

		AG01Y	AG01Z	AG01	AG01A	UNITS
Maximum peak repetitive reverse voltage	V_{RRM}	100	200	400	600	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	
Maximum DC blocking voltage	V_{DC}	100	200	400	600	
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}	25	15			A
Maximum instantaneous forward voltage @ $I_F=I_{F(AV)}$	V_F	1.2	1.8			V
Maximum reverse current @ $T_A=25^{\circ}C$ at rated DC blocking voltage @ $T_A=100^{\circ}C$	I_R	100 500				μA
Maximum reverse recovery time (Note1)	t_{rr}	50				ns
Typical junction capacitance (Note2)	C_J	20			15	pF
Typical thermal resistance (Note3)	$R_{\theta JC}$	22				$^{\circ}C/W$
Operating junction temperature range	T_J	- 55 ----- + 150				$^{\circ}C$
Storage temperature range	T_{STG}	- 55 ----- + 150				$^{\circ}C$

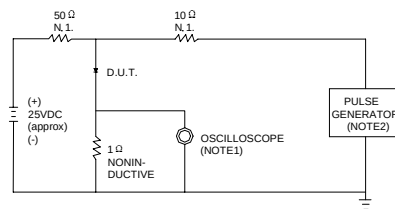
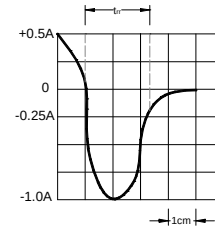
NOTE: 1. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $t_{rr}=0.25\text{A}$.

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

3. Thermal resistance junction to case.

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 = 50Ω.

SET TIME BASE FOR 10/20 ns/cm

FIG.2 – TYPICAL FORWARD CHARACTERISTIC

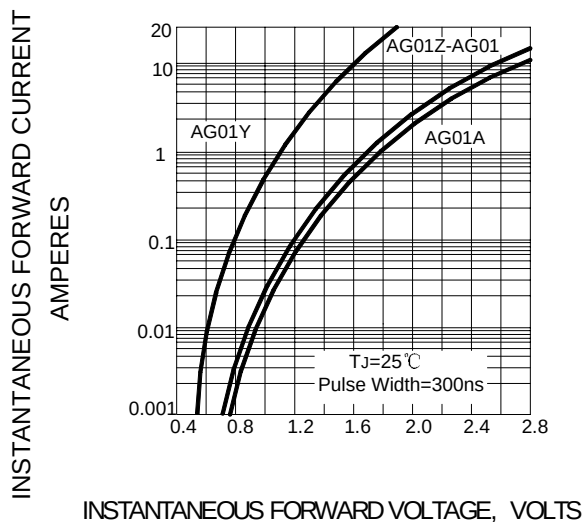


FIG.3 – FORWARD DERATING CURVE

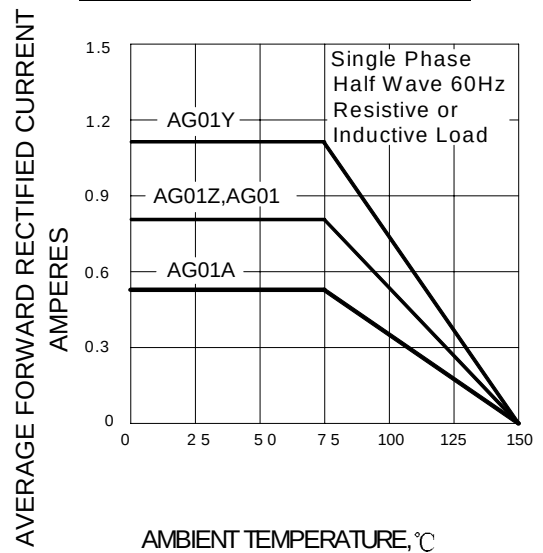


FIG.4 – PEAK FORWARD SURGE CURRENT

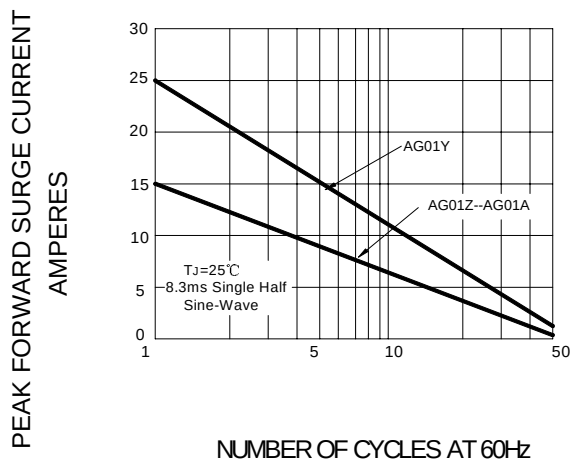


FIG.5 – TYPICAL JUNCTION CAPACITANCE

