HIGH EFFICIENCY RECTIFIER

VOLTAGE RANGE: 70 --- 1000 V
CURRENT: 0.5 --- 1.0 A

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
- ◇ Terminals: Axial leads,solderable per MIL-STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.012 ounces, 0.34grams
- ◇ Mounting: Any

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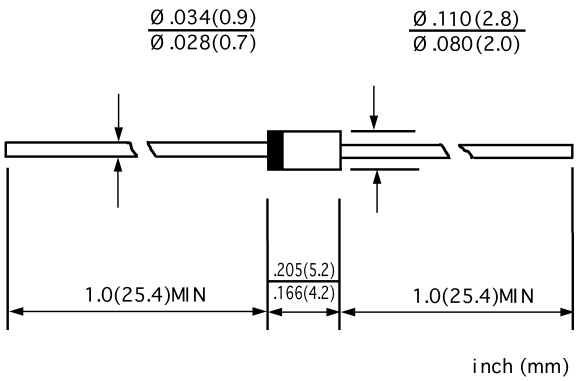

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ 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 forw ard rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	1.0	0.7		0.5		A
Peak forw ard surge current 10ms single half-sine-w ave superimplsed on rated load @T_J=125℃	I_{FSM}	30.0	15.0		10.0		A
Maximum instantaneous forw ard voltage @ I_F=$I_{F(AV)}$	V_F	1.2	1.9	2.0		3.3	V
Maximum reverse current @T_A=25℃	I_R	0.1	0.05		0.1	0.05	mA
at rated DC blocking voltage @T_A=100℃		0.5	0.30		0.5	0.50	
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					℃/W
Operating junction temperature range	T_J	- 55 --- + 150					℃
Storage temperature range	T_{STG}	- 55 --- + 150					℃

NOTE: 1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.5A
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3. Thermal resistance from junction to ambient.

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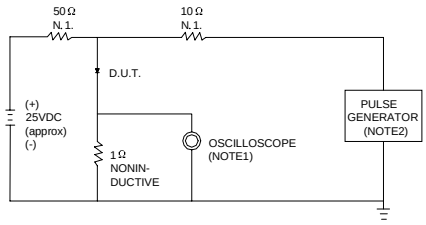
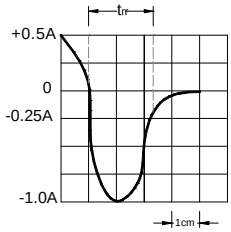
FIG.1 -- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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

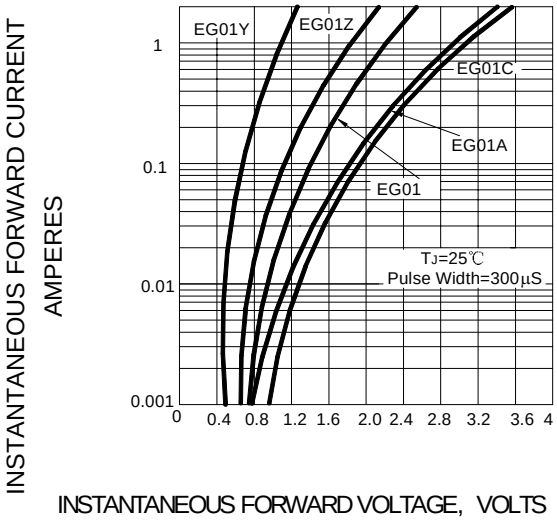


FIG.3 -- FORWARD DERATING CURVE

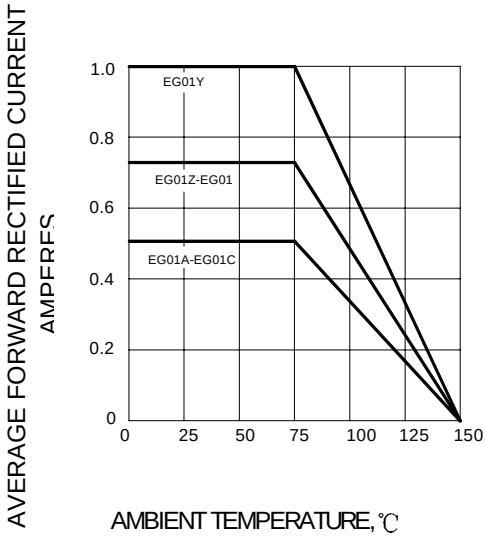


FIG.4 -- PEAK FORWARD SURGE CURRENT

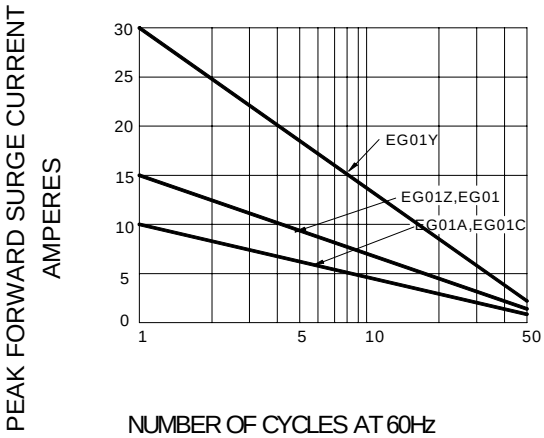


FIG.5--TYPICAL JUNCTION CAPACITANCE