EG1Y-EG1A

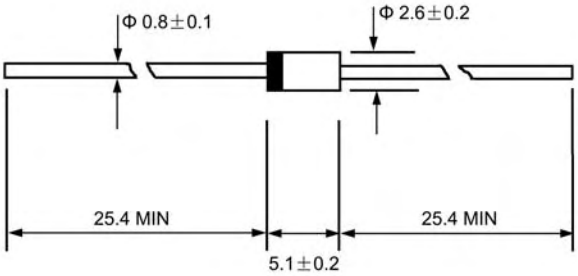
High Efficiency Rectifiers

VOLTAGE RANGE: 70--- 600 V
CURRENT: 1.1---0.6 A

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℃ ambient temperature unless otherwise specified.

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

		EG1Y	EG1Z	EG1	EG1A	UNITS
Maximum peak repetitive reverse voltage	V_{RRM}	70	200	400	600	V
Maximum RMS voltage	V_{RMS}	49	140	280	420	V
Maximum DC blocking voltage	V_{DC}	70	200	400	600	V
Maximum average forward rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	1.1	0.8		0.6	A
Peak forward surge current 10ms single half-sine-wave superimpised on rated load @T_J=125℃	I_{FSM}	30.0	15.0		10.0	A
Maximum instantaneous forward voltage @ I_F=$I_{F(AV)}$	V_F	1.2	1.7	1.8	2.0	V
Maximum reverse current @T_A=25℃	I_R	100.0	50.0		100.0	μA
at rated DC blocking voltage @T_A=100℃		500.0	300.0		500.0	
Maximum reverse recovery time (Note1)	t_{rr}	50				ns
Typical junction capacitance (Note2)	C_J	20			15	pF
Typical thermal resistance (Note3)	$R_{\theta JL}$	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, Irr=0.25A.

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

3.Thermal resistance junction to ambient.

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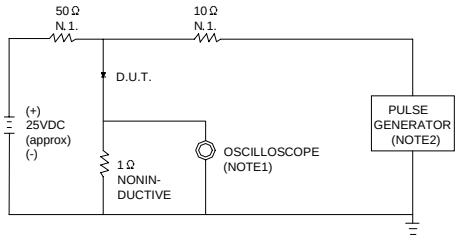
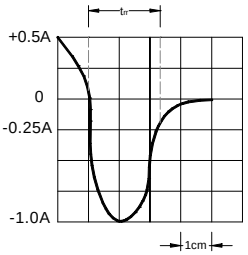
Ratings AND Charactieristic Curves

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

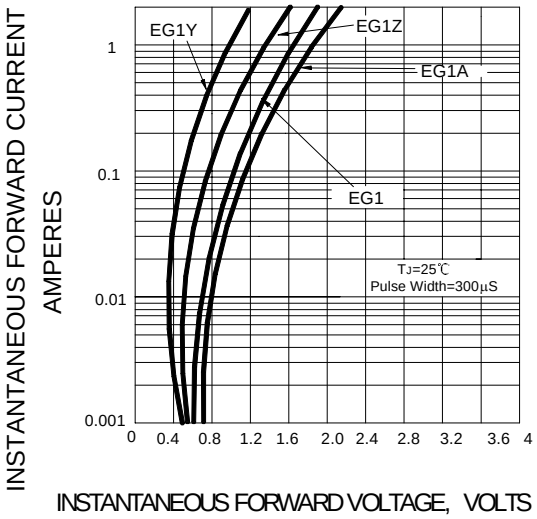


FIG.3 – FORWARD DERATING CURVE

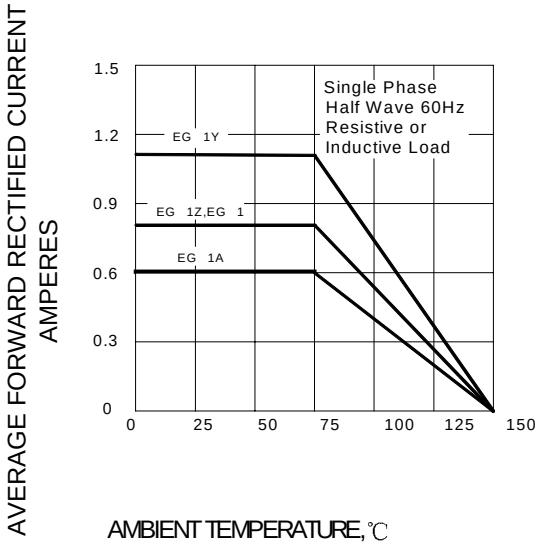


FIG.4 – PEAK FORWARD SURGE CURRENT

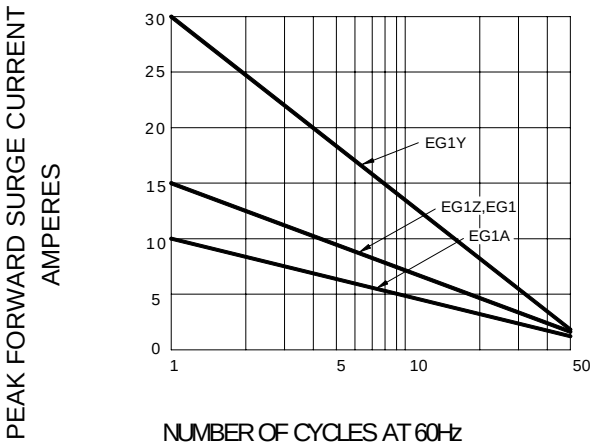


FIG.5–TYPICAL JUNCTION CAPACITANCE