

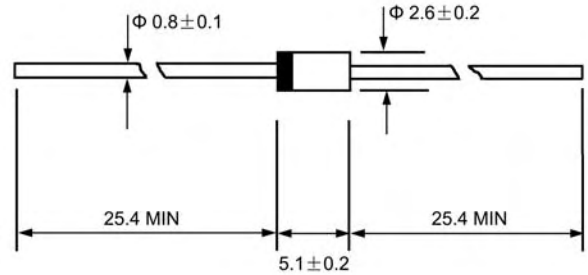
# EGP10A-EGP10G

High Efficiency Rectifiers

**VOLTAGE RANGE: 50 --- 400 V**

**CURRENT: 1.0 A**

**DO - 41**



Dimensions in millimeters

## Features

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage
- ◇ High current capability
- ◇ Easily cleaned with alcohol, Isopropanol 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, 0.34 grams
- ◇ Mounting position: 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%.

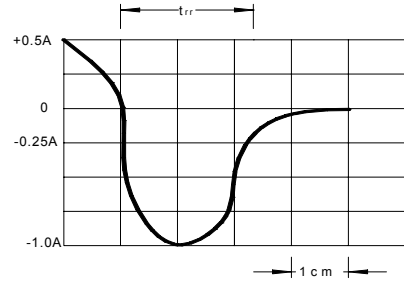
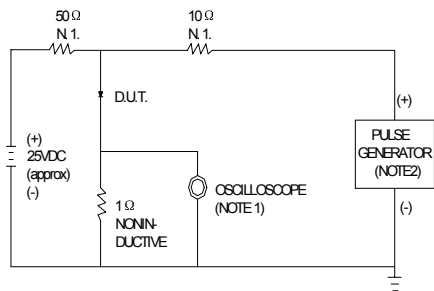
		EGP 10A	EGP 10B	EGP 10C	EGP 10D	EGP 10F	EGP 10G	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	150	200	300	400	V
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	210	280	V
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	300	400	V
Maximum average forward rectified current 9.5mm lead length @ $T_A=75^\circ C$	$I_{F(AV)}$	1.0						A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	$I_{FSM}$	30.0						A
Maximum instantaneous forward voltage @ 1.0 A	$V_F$	0.95			1.25			V
Maximum reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=125^\circ C$	$I_R$	5.0			100.0			$\mu A$
Maximum reverse recovery time (Note1)	$t_{rr}$	50						ns
Typical junction capacitance (Note2)	$C_J$	22			15			pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	50						$^\circ C/W$
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 voltage of 4.0V DC.

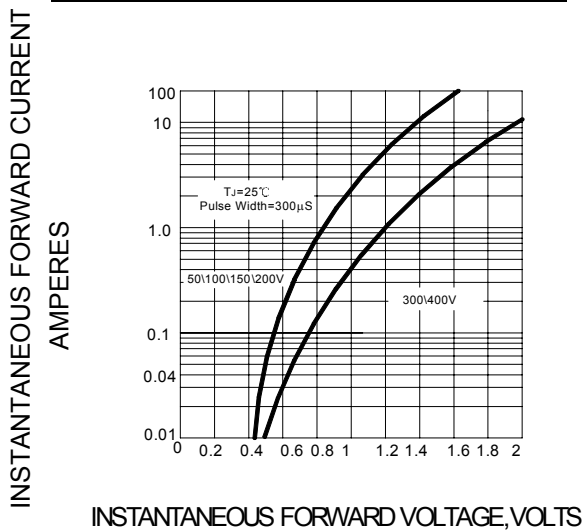
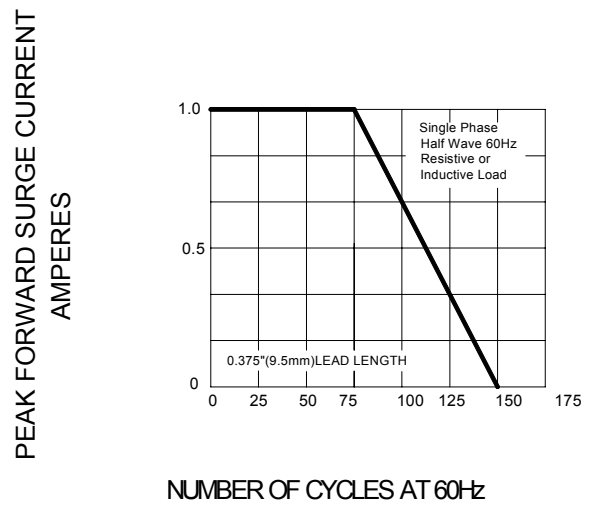
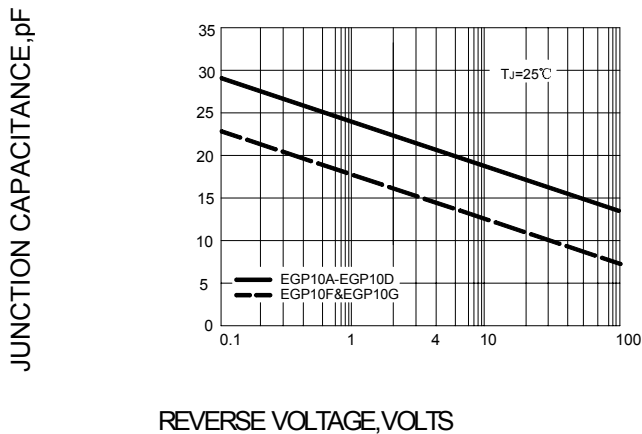
3. Thermal resistance from junction to ambient.

## 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=50Ω.

SET TIME BASE FOR 20/30 ns/cm

**FIG.3 – TYPICAL FORWARD CHARACTERISTICS**

**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**

**FIG.5 – TYPICAL JUNCTION CAPACITANCE**

**FIG.6 – FORWARD DERATING CURVE**
