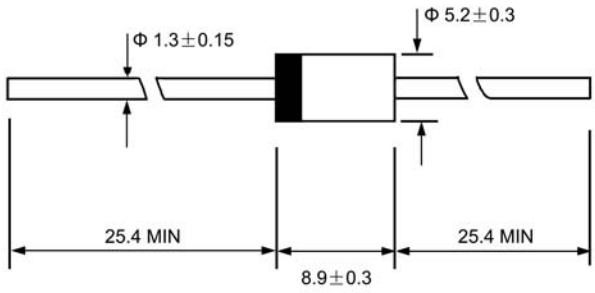
EGP30A-EGP30K

High Efficiency Rectifiers

VOLTAGE RANGE: 50 --- 800 V
CURRENT: 3.0 A

DO - 27



Dimensions in millimeters

Features

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High surge current capability
- ◇ Easily cleaned with alcohol,Isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

Mechanical Data

- ◇ Case:JEDEC DO--27,molded plastic
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.041 ounces,1.15grams
- ◇ Mounting position: 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%.

		EGP 30A	EGP 30B	EGP 30C	EGP 30D	EGP 30F	EGP 30G	EGP 30J	EGP 30K	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	150	200	300	400	600	800	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	560	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	600	800	V
Maximum average forw ard rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	3.0								A
Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load	I_{FSM}	125.0								A
Maximum instantaneous forw ard voltage @ 3.0 A	V_F	0.95				1.25		1.7		V
Maximum reverse current @T_A=25℃ at rated DC blocking voltage @T_A=125℃	I_R	5.0 100.0								μA
Maximum reverse recovery time (Note1)	t_{rr}	50						75		ns
Typical junction capacitance (Note2)	C_J	95				75				pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	20								℃/W
Typical thermal resistance (Note4)	$R_{\theta JL}$	8.5								℃/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}=0.25A.

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

3.Thermal resistance junction to ambient.

4.Thermal resistance junction to lead.

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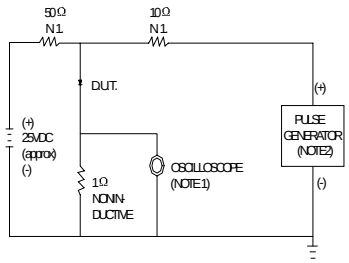
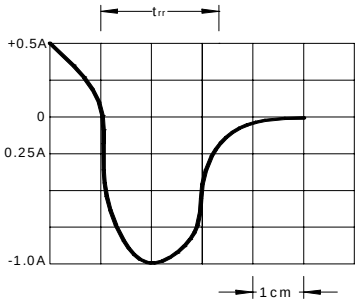
Ratings AND Charactieristic Curves

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 20/30 ns/cm

FIG.2 -- TYPICAL FORWARD CHARACTERISTIC

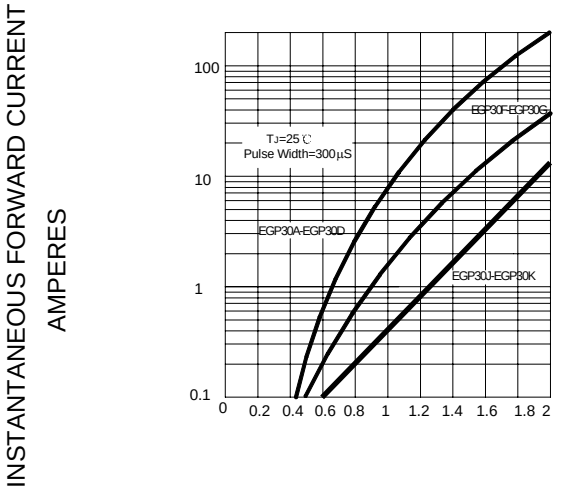


FIG.3 -- FORWARD DERATING CURVE

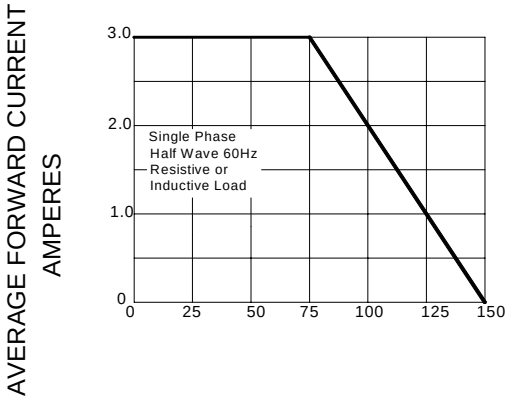


FIG.4 -- TYPICAL JUNCTION CAPACITANCE

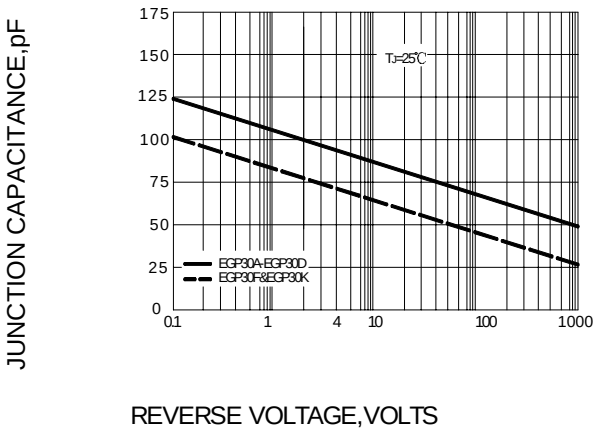


FIG.5 -- PEAK FORWARD SURGE CURRENT