

HIGH EFFICIENCY RECTIFIERS

VOLTAGE RANGE: 50 --- 800 V
CURRENT: 2.0 A

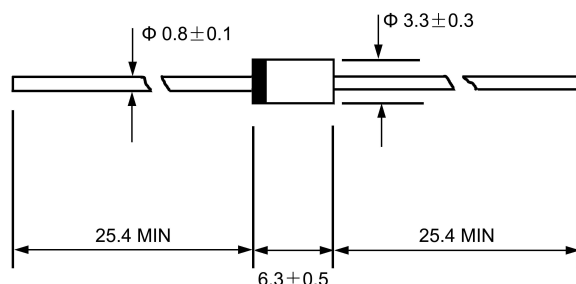
FEATURES

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ 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-15, molded plastic
- ◇ Terminals: Axial lead, solderable per MIL-STD-750, Method 2026
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.014 ounces, 0.39 grams
- ◇ Mounting position: Any

DO - 15



Dimensions in millimeters

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%.

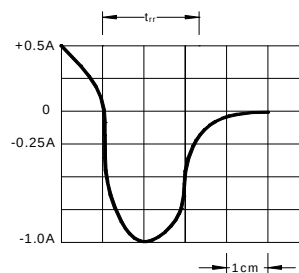
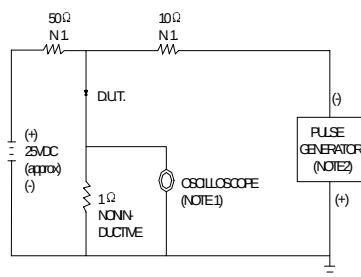
		EGP 20A	EGP 20B	EGP 20C	EGP 20D	EGP 20F	EGP 20G	EGP 20J	EGP 20K	UNITS
Maximum recurrent peak reverse voltage	V _{RRM}	50	100	150	200	300	400	600	800	V
Maximum RMS voltage	V _{RMS}	35	70	105	140	210	280	420	560	V
Maximum DC blocking voltage	V _{DC}	50	100	150	200	300	400	600	800	V
Maximum average forw ard rectified current 9.5mm lead length, @T _A =75°C	I _{F(AV)}	2.0								A
Peak forw ard surge current 8.3ms single half-sine-wave superimposed on rated load @T _J =125°C	I _{FSM}	75								A
Maximum instantaneous forw ard voltage @ 2.0 A	V _F	0.95				1.25		1.7		V
Maximum reverse current @T _A =25°C at rated DC blocking voltage @T _A =125°C	I _R	5.0 100								μ A
Maximum reverse recovery (Note1)	t _{rr}	50				75				ns
Typical junction capacitance (Note2)	C _J	70					45			pF
Typical thermal resistance (Note3)	R _{θJA}	40								°C/W
Typical thermal resistance (Note 4)	R _{θJL}	15								
Operating junction temperature range	T _J	- 55 ---- + 150								°C
Storage temperature range	T _{STG}	- 55 ---- + 150								°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 from junction to ambient.

4. Thermal resistance from junction to lead.

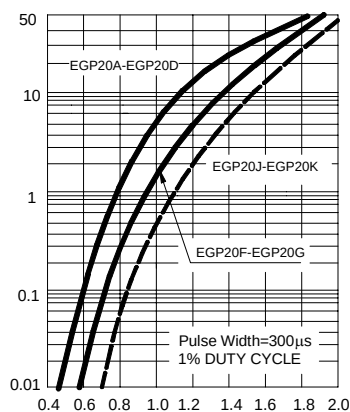
FIG.1 -- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

NOTES:1.RISE TIME = 7ns MAX.INPUT IMPEDANCE = 1M Ω .22pF.
2.RISE TIME =10ns MAX.SOURCE IMPEDANCE=50 Ω .

SET TIME BASE FOR 20/30 ns/cm

FIG.2 -- TYPICAL FORWARD CHARACTERISTIC

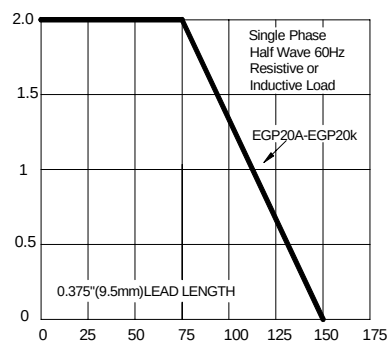
INSTANTANEOUS FORWARD CURRENT
AMPERES



INSTANTANEOUS FORWARD VOLTAGE, VOLTS

FIG.3 -- FORWARD DERATING CURVE

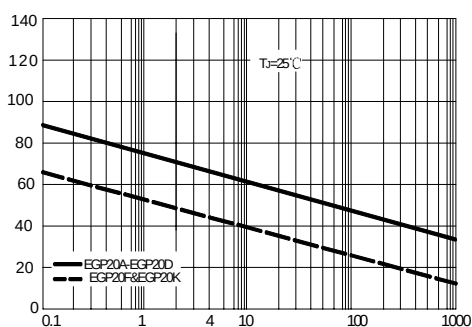
AVERAGE FORWARD CURRENT
AMPERES



AMBIENT TEMPERATURE, °C

FIG.4 -- TYPICAL JUNCTION CAPACITANCE

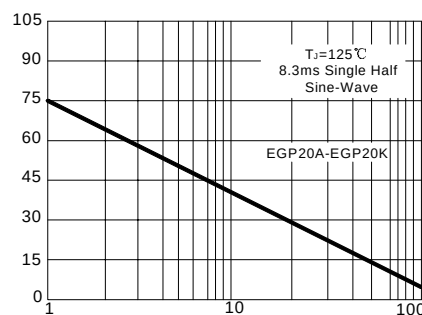
JUNCTION CAPACITANCE, pF



REVERSE VOLTAGE, VOLTS

FIG.5 -- PEAK FORWARD SURGE CURRENT

PEAK FORWARD SURGE CURRENT
AMPERES



NUMBER OF CYCLES AT 60Hz