

# EGP20A - EGP20D

# HIGH EFFICIENT RECTIFIERS

**PRV : 50 - 200 Volts**

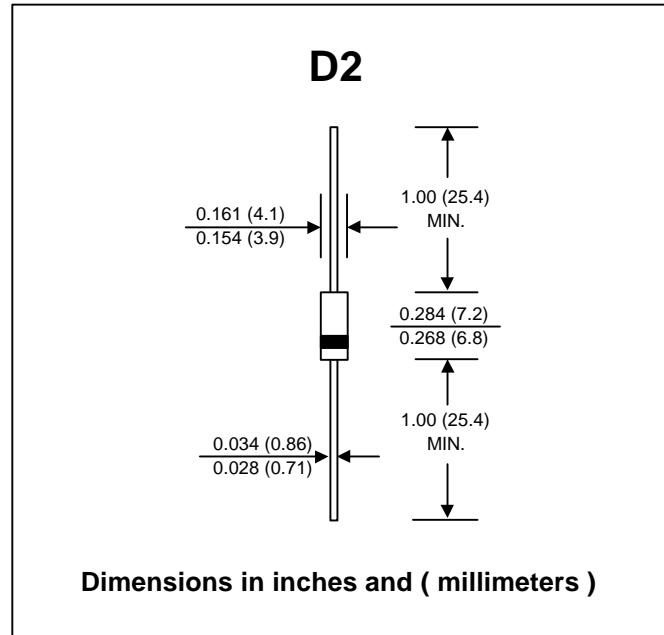
**Io : 2.0 Amperes**

**FEATURES :**

- \* High current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Fast switching for high efficiency
- \* **Pb / RoHS Free**

**MECHANICAL DATA :**

- \* Case : D2 Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.465 gram



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

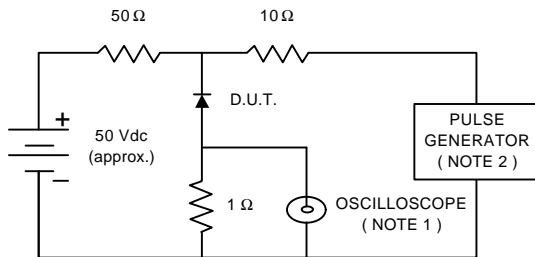
RATING	SYMBOL	EGP 20A	EGP 20B	EGP 20C	EGP 20D	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	150	200	V
Maximum RMS Voltage	VRMS	35	70	105	140	V
Maximum DC Blocking Voltage	VDC	50	100	150	200	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length Ta = 55 °C	IF(AV)	2.0				A
Peak Forward Surge Current, 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	IFSM	75				A
Maximum Peak Forward Voltage at IF = 2.0 A	VF	0.95				V
Maximum DC Reverse Current Ta = 25 °C	IR	5.0				µA
at Rated DC Blocking Voltage Ta = 150 °C	IR(H)	50				µA
Maximum Reverse Recovery Time ( Note 1 ) Tj = 25 °C	Trr	50				ns
Typical Junction Capacitance ( Note 2 )	CJ	70				pf
Junction Temperature Range	TJ	- 65 to + 150				°C
Storage Temperature Range	TSTG	- 65 to + 150				°C

**Notes :**

- ( 1 ) Reverse Recovery Test Conditions : IF = 0.5 A, IR = 1.0 A, Irr = 0.25 A.
- ( 2 ) Measured at 1.0 MHz and applied reverse voltage of 4.0 Vdc

## RATING AND CHARACTERISTIC CURVES ( EGP20A - EGP20D )

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



- NOTES : 1. Rise Time = 7 ns max., Input Impedance = 1 megaohm, 22 pF.  
2. Rise time = 10 ns max., Source Impedance = 50 ohms.  
3. All Resistors = Non-inductive Types.

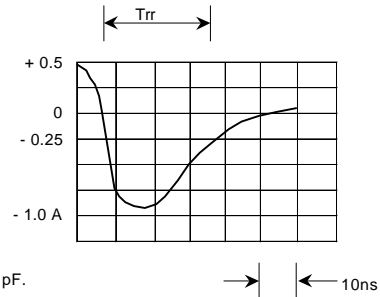


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

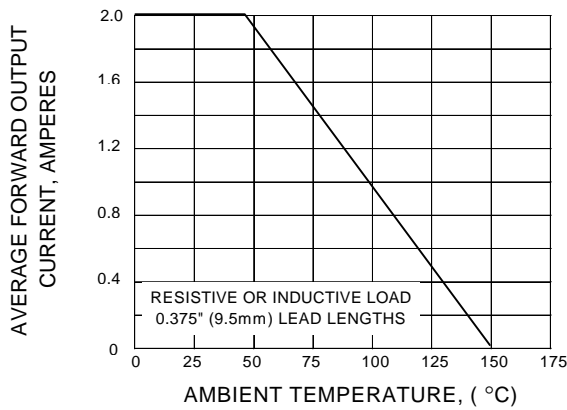


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

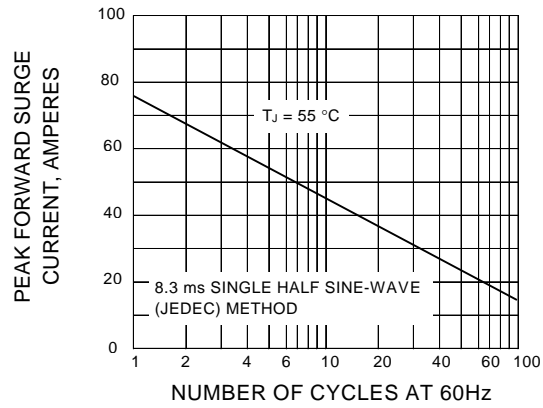


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

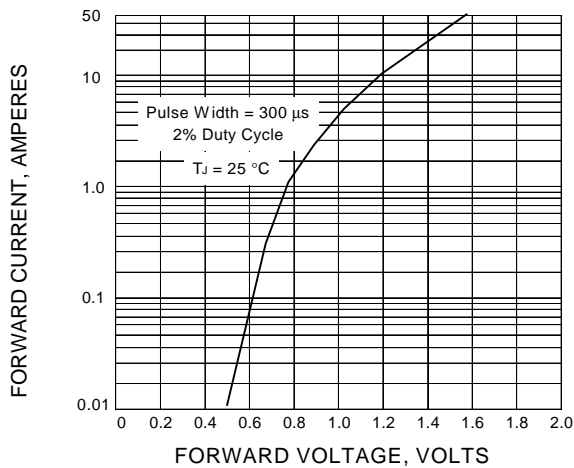


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

