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# EGP10A - EGP10K

## 1.0 Ampere Glass Passivated High Efficiency Rectifiers

### Features

- Superfast recovery time for high efficiency
- Low forward voltage, high current capability
- Low leakage current
- High surge current capability



**DO-41 Glass case**  
COLOR BAND DENOTES CATHODE

### Absolute Maximum Ratings\* $T_a = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
$I_O$	Average Rectified Current .375" lead length @ $T_L = 75^\circ\text{C}$	1.0	A
$I_{f(\text{surge})}$	Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	30	A
$P_D$	Total Device Dissipation Derate above $25^\circ\text{C}$	2.5 17	W mW/°C
$\theta_C$	Thermal Resistance, Junction to Ambient	50	°C/W
$T_J, T_{STG}$	Junction and Storage Temperature Range	-65 ~ 150	°C

\* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

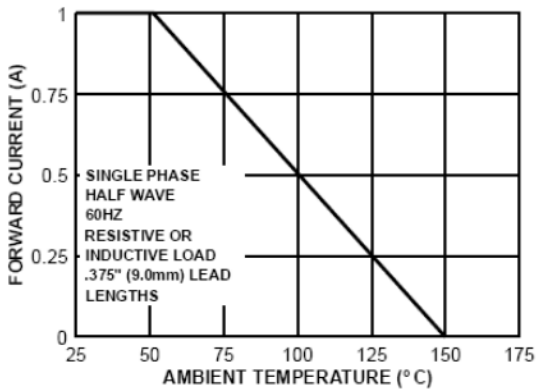
### Electrical Characteristics\* $T_a = 25^\circ\text{C}$ unless otherwise noted

Parameter	Device								Units
	10A	10B	10C	10D	10F	10G	10J	10K	
Peak Repetitive Reverse Voltage	50	100	150	200	300	400	600	800	V
Maximum RMS Voltage	35	70	105	140	210	280	420	560	V
DC Reverse Voltage (Rated $V_R$ )	50	100	150	200	300	400	600	800	V
Maximum Reverse Current @ rated $V_R$ $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$	5.0 100								$\mu\text{A}$ $\mu\text{A}$
Maximum Reverse Recovery Time $I_F = 0.5 \text{ A}, I_R = 1.0 \text{ A}, I_{rr} = 0.25 \text{ A}$	50						75		nS
Maximum Forward Voltage @ 1.0 A	0.95				1.25		1.7		V
Typical Junction Capacitance $V_R = 4.0 \text{ V}, f = 1.0 \text{ MHz}$	22				15				pF

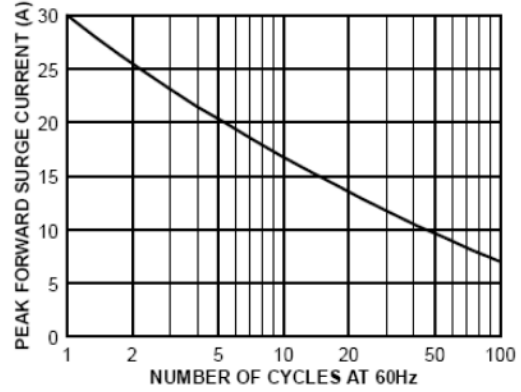
\* Pulse Test: Pulse Width  $\leq 300 \mu\text{s}$ , Duty Cycle  $\leq 2\%$

## Typical Performance Characteristics

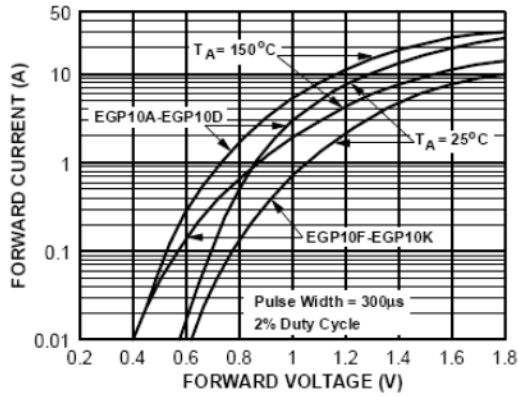
### Forward Current Derating Curve



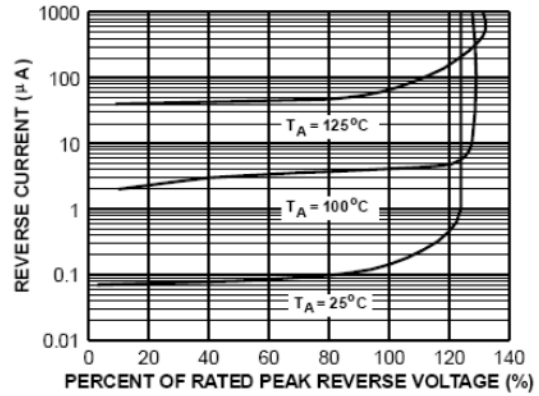
### Non-Repetitive Surge Current



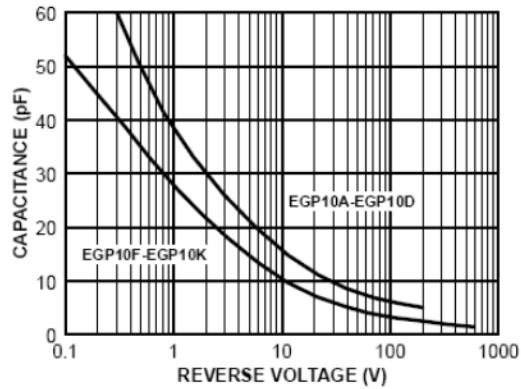
### Forward Characteristics



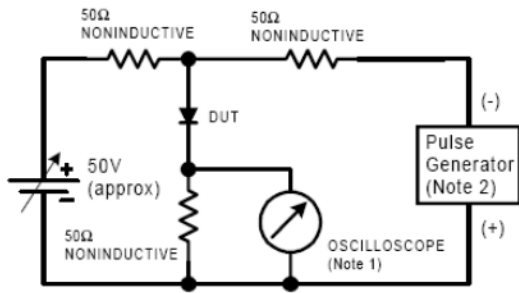
### Reverse Characteristics



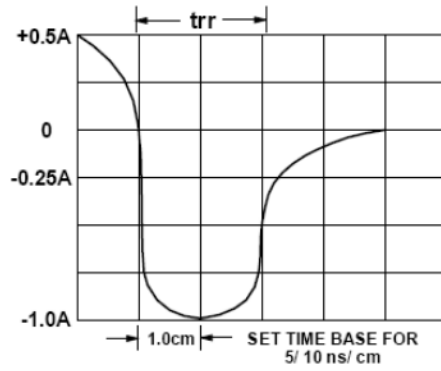
### Junction Capacitance



### Reverse Recovery Time Characteristic and Test Circuit Diagram




- NOTES:
1. Rise time = 7.0 ns max; Input impedance = 1.0 megaohm 22 pf.
  2. Rise time = 10 ns max; Source impedance = 50 ohms.





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