

Discrete POWER & Signal **Technologies**

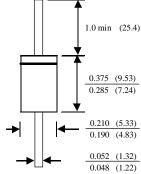
EGP30A - EGP30K

Features

- Glass passivated cavity-free junction.
- High surge current capability.
- Low leakage current.
- · Superfast recovery time for high efficiency.
- Low forward voltage, high current capability.







Dimensions in inches (mm)

3.0 Ampere Glass Passivated High Efficiency Rectifiers

Absolute Maximum Ratings* T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units	
Io	Average Rectified Current .375 " lead length @ T _A = 55°C	3.0	А	
İf(surge)	Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	125	A	
P _D	Total Device Dissipation Derate above 25°C	6.25 50	W mW/°C	
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	20	°C/W	
$R_{\theta JL}$	Thermal Resistance, Junction to Lead	8.5	°C/W	
T _{stg}	Storage Temperature Range	-65 to +150	°C	
TJ	Operating Junction Temperature	-65 to +150	°C	

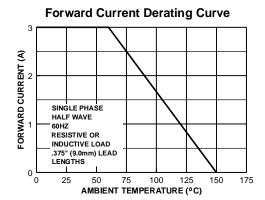
^{*}These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

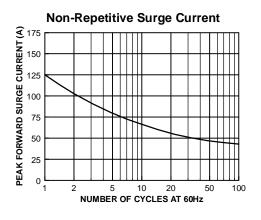
Electrical Characteristics

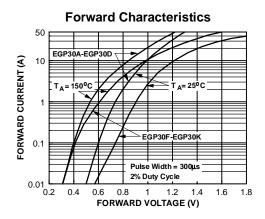
T_A = 25°C unless otherwise noted

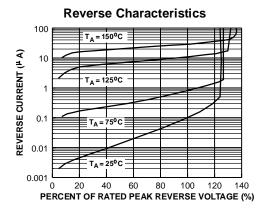
Parameter	Device							Units	
	30A	30B	30C	30D	30F	30G	30J	30K	
Peak Repetitive Reverse Voltage	50	100	150	200	300	400	600	800	V
Maximum RMS Voltage	35	70	105	140	210	280	420	560	V
DC Reverse Voltage (Rated V _R)	50	100	150	200	300	400	600	800	V
Maximum Reverse Current @ rated V_R $T_A = 25^{\circ}C$ $T_A = 125^{\circ}C$	5.0 100							μA μA	
Maximum Reverse Recovery Time I _F = 0.5 A, I _R = 1.0 A, I _{rr} = 0.25 A	50 75						nS		
Maximum Forward Voltage @ 3.0 A	0.95 1.25 1.7						V		
Typical Junction Capacitance $V_R = 4.0 \text{ V}, f = 1.0 \text{ MHz}$	95 75					pF			

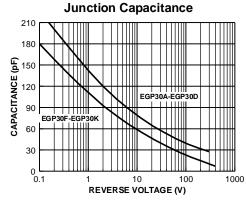
Typical Characteristics

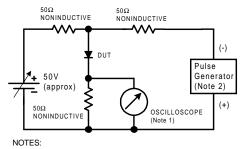


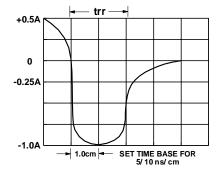












1. Rise time = 7.0 ns max; Input impedance = 1.0 megaohm 22 pf.

2. Rise time = 10 ns max; Source impedance = 50 ohms.

Reverse Recovery Time Characterstic and Test Circuit Diagram

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