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July 2007

EGP30A - EGP30K

3.0 Ampere Glass Passivated High Efficiency Rectifiers

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



DO-201AD Glass case

COLOR BAND DENOTES CATHODE

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

Symbol	Parameter	Value	Units	
I _O	Average Rectified Current .375 " lead length @ TL= 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	А	
P _D	Total Device Dissipation Derate above 25°C	6.25 50	W mW°C	
R _θ JA	Thermal Resistance, Junction to Ambient	20	°C/W	
Rejl	Thermal Resistance, Junction to Lead	8.5	°C/W	
T _J , T _{STG}	Junction and Storage Temperature Range	-65 ~ 150	°C	

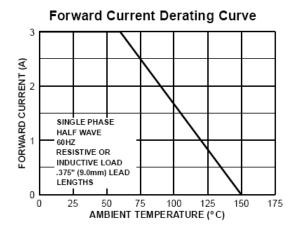
^{*} These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

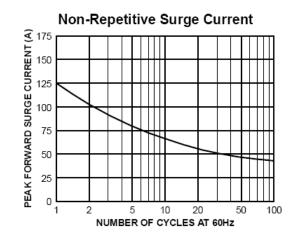
Electrical Characteristics* T_a = 25°C unless otherwise noted

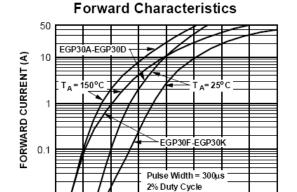
		Device							
Parameter	30A	30B	30C	30D	30F	30G	30J	30K	Units
Peak Repetitive Reverse Voltage	50	100	150	200	300	400	600	800	V
Maximum RMS Voltage	35	70	105	140	210	280	420	560	V
DC Reverse Voltage (Rated VR)	50	100	150	200	300	400	600	800	V
Maximum Reverse Current @ rated VR TA = 25°C TA = 125°C	5.0 100								μ Α μ Α
Maximum Reverse Recovery Time IF = 0.5 A, IR = 1.0 A, Irr = 0.25 A	50 75							nS	
Maximum Forward Voltage @ 3.0 A		0.95				1.25 1.		.7	V
Typical Junction Capacitance VR = 4.0 V, f = 1.0 MHz		95 75						pF	

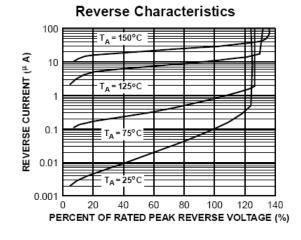
^{*} Pulse Test: Pulse Width≤300μs, Duty Cycle≤2%

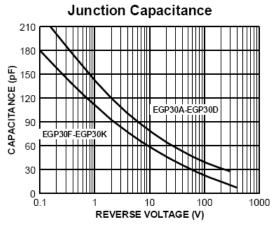
Typical Performance Characteristics











1.8

0.01 - 0.2

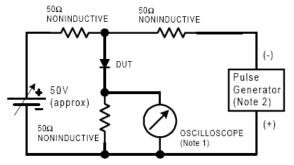
0.4

0.6

8.0

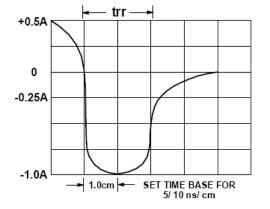
FORWARD VOLTAGE (V)

Reverse Recovery Time Characterstic 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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