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July 2007

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°C unless otherwise noted

Symbol	Parameter	Value	Units		
I _O	Average Rectified Current .375 " lead length @ T _L = 75°C	1.0	А		
İ _f (surge)	Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	30	А		
P _D	Total Device Dissipation Derate above 25°C	2.5 17	W mW°C		
I _C	Thermal Resistance, Junction to Ambient	50	°C/W		
T _J , T _{STG}	Junction and Storage Temperature Range	-65 ~ 150	°C		

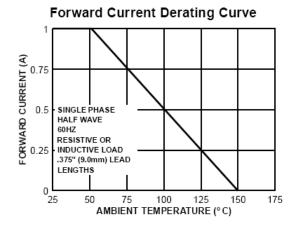
^{*} These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

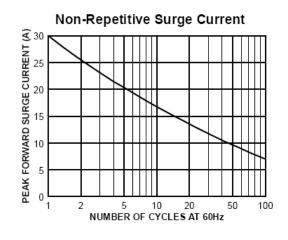
Electrical Characteristics* T_a = 25°C unless otherwise noted

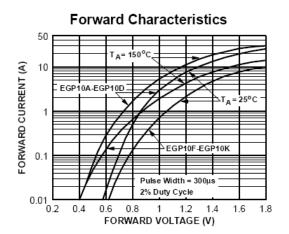
	Device								
Parameter	10A	10B	10C	10D	10F	10G	10J	10K	Units
Peak Repetitive Reverse Voltage	50	100	150	200	300	400	600	800	V
Maximum RMS Voltage	35	70	105	140	210	280	420	560	V
DC Reverse Voltage (Rated VR)	50	100	150	200	300	400	600	800	V
Maximum Reverse Current @ rated VR TA = 25°C TA = 125°C	5.0 100							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 @ 1.0 A	0.95				1.25		.7	V	
Typical Junction Capacitance VR = 4.0 V, f = 1.0 MHz	22 15						pF		

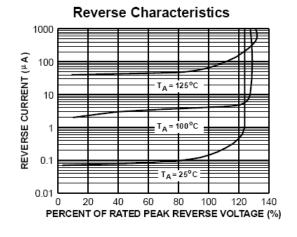
^{*} Pulse Test: Pulse Width \leq 300 μ s, Duty Cycle \leq 2%

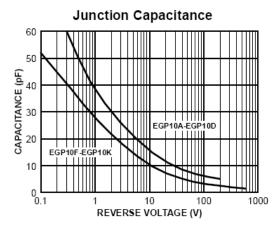
Typical Performance Characteristics



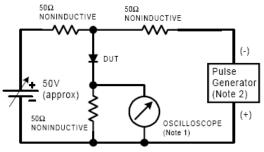






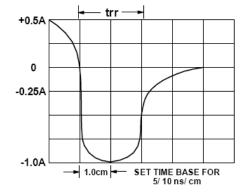


Reverse Recovery Time Characterstic and Test Circuit Diagram



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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