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Please note: As part of the Fairchild Semiconductor integration, some of the Fairchild orderable part numbers will need to change in order to meet ON Semiconductor's system requirements. Since the ON Semiconductor product management systems do not have the ability to manage part nomenclature that utilizes an underscore (_), the underscore (_) in the Fairchild part numbers will be changed to a dash (-). This document may contain device numbers with an underscore (_). Please check the ON Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.onsemi.com. Please email any questions regarding the system integration to Fairchild_questions@onsemi.com.

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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 @ T∟= 55°C		3.0	А	
İ _{f(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	
Reja	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	

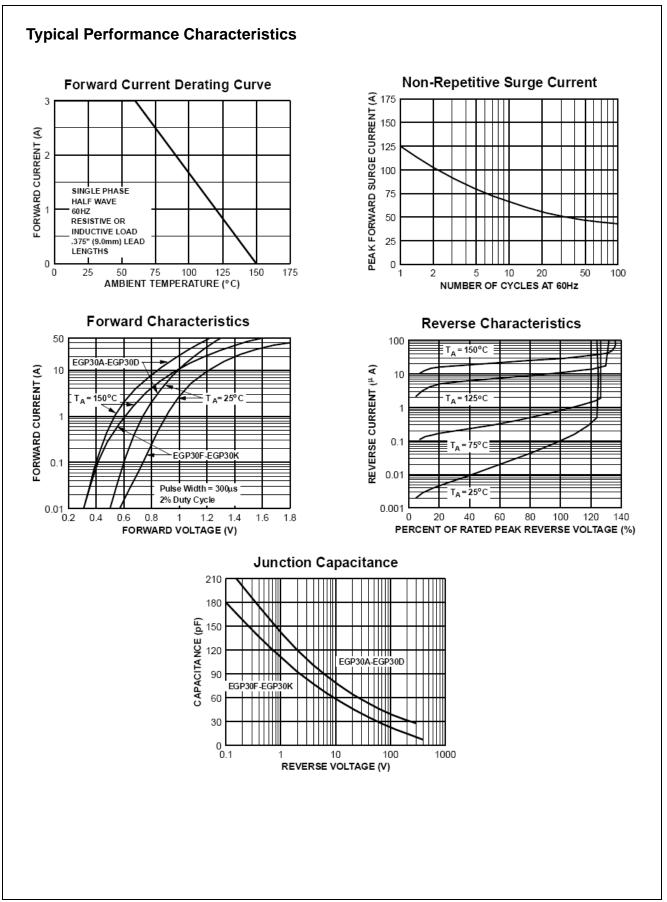
* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

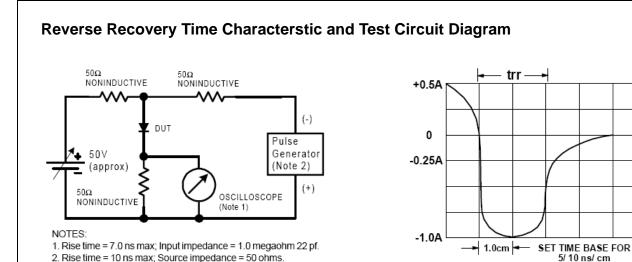
Electrical Characteristics^{*} $T_a = 25^{\circ}C$ unless otherwise noted

	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					μΑ μΑ			
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		.7	V	
Typical Junction Capacitance VR = 4.0 V, f = 1.0 MHz	95			75			pF		

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

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