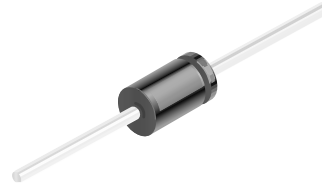


EGP30A - EGP30K

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.



DO-201AD
COLOR BAND DENOTES CATHODE

Fast Rectifiers (Glass Passivated)

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

Symbol	Parameter	Value								Units
		30A	30B	30C	30D	30F	30G	30J	320	
V _R	Breakdown Voltage	50	100	150	200	300	400	600	800	V
I _{F(AV)}	Average Rectified Forward Current, .375" lead length @ T _A = 55°C	3.0								A
I _{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	125								A
T _{stg}	Storage Temperature Range	-65 to +150								°C
T _J	Operating Junction Temperature	-65 to +150								°C

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

Thermal Characteristics

Symbol	Parameter	Value	Units
P _D	Power Dissipation	6.25	W
R _{θJA}	Thermal Resistance, Junction to Ambient	20	°C/W
R _{θJL}	Thermal Resistance, Junction to Lead	8.5	°C/W

Electrical Characteristics T_A = 25°C unless otherwise noted

Symbol	Parameter	Device								Units
		30A	30B	30C	30D	30F	30G	30J	320	
V _F	Forward Voltage @ 3.0 A	0.95			1.25		1.7			V
t _{rr}	Reverse Recovery Time I _F = 0.5 A, I _R = 1.0 A, I _{rr} = 0.25 A	50					75			ns
I _R	Reverse Current @ rated V _R T _A = 25°C T _A = 125°C	5.0				100				μA μA
C _T	Total Capacitance V _R = 4.0 V, f = 1.0 MHz	95				75				pF

Typical Characteristics

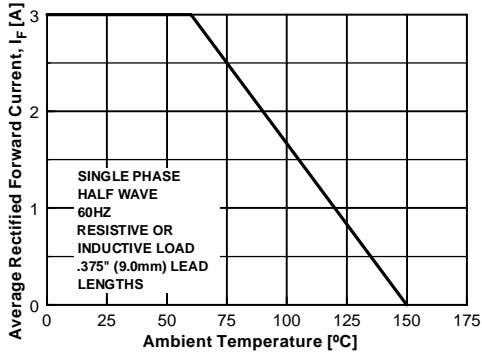


Figure 1. Forward Current Derating Curve

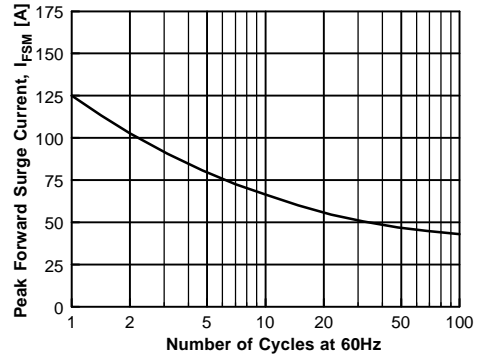


Figure 2. Non-Repetitive Surge Current

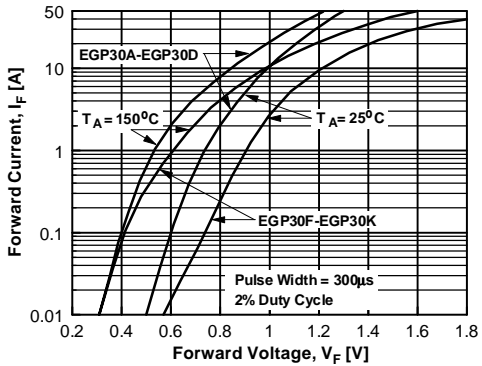


Figure 3. Forward Voltage Characteristics

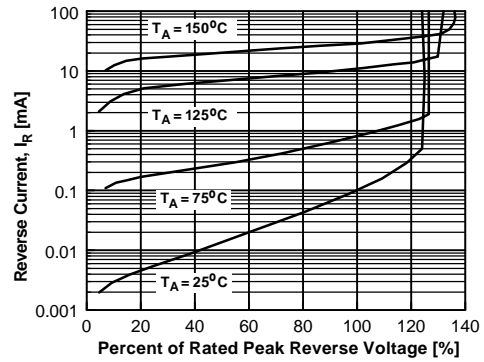


Figure 4. Reverse Current vs Reverse Voltage

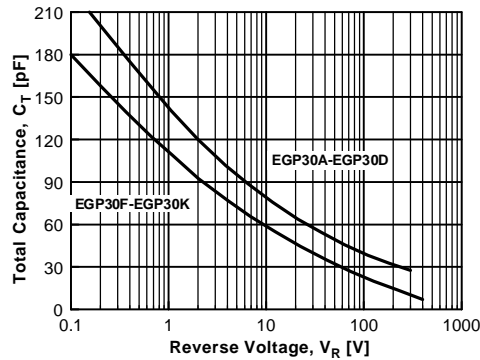
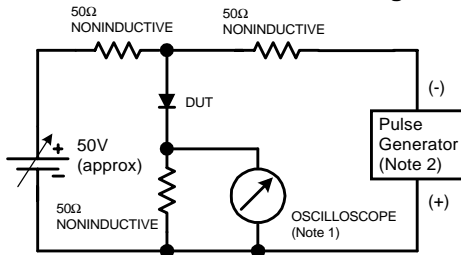
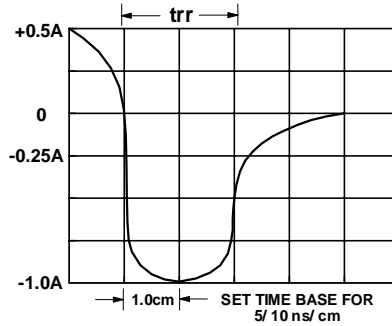


Figure 5. Total Capacitance



- 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.



Reverse Recovery Time Characteristic and Test Circuit Diagram

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