



**Discrete POWER & Signal
Technologies**

EGP10A-EGP10K

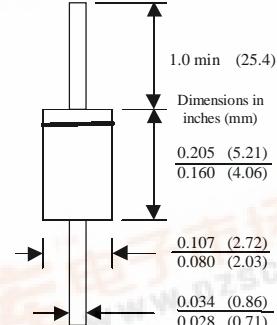
EGP10A - EGP10K

Features

- Superfast recovery time for high efficiency.
- Low forward voltage, high current capability.
- Low leakage current.
- High surge current capability.



DO-41
COLOR BAND DENOTES CATHODE



1.0 min (25.4)

Dimensions in
inches (mm)

0.205 (5.21)

0.160 (4.06)

0.107 (2.72)

0.080 (2.03)

0.034 (0.86)

0.028 (0.71)

1.0 Ampere Glass Passivated High Efficiency Rectifiers

Absolute Maximum Ratings*

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
I_o	Average Rectified Current .375 " lead length @ $T_L = 55^\circ\text{C}$	1.0	A
$i_f(\text{surge})$	Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	30	A
P_D	Total Device Dissipation Derate above 25°C	2.5 17	W mW/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	50	$^\circ\text{C}/\text{W}$
T_{stg}	Storage Temperature Range	-65 to +150	$^\circ\text{C}$
T_J	Operating Junction Temperature	-65 to +150	$^\circ\text{C}$

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

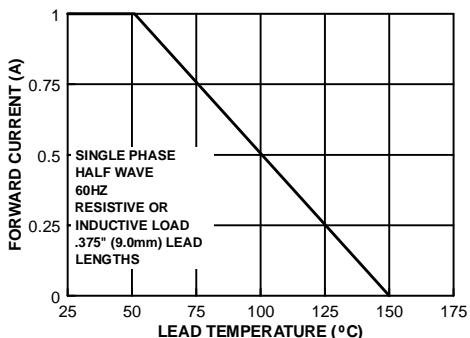
Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

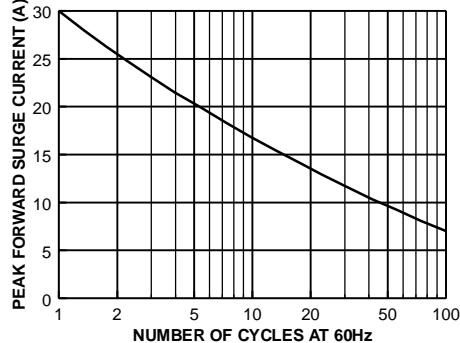
Parameter	Device								Units
	10A	10B	10C	10D	10F	10G	10J	10K	
Peak Repetitive Reverse Voltage	50	100	150	200	300	400	600	800	V
Maximum RMS Voltage	35	70	105	140	210	280	420	560	V
DC Reverse Voltage (Rated V_R)	50	100	150	200	300	400	600	800	V
Maximum Reverse Current @ rated V_R $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$					5.0 100				μA μA
Maximum Reverse Recovery Time $I_F = 0.5 \text{ A}$, $I_R = 1.0 \text{ A}$, $I_{rr} = 0.25 \text{ A}$				50			75		nS
Maximum Forward Voltage @ 1.0 A			0.95		1.25		1.7		V
Typical Junction Capacitance $V_R = 4.0 \text{ V}$, $f = 1.0 \text{ MHz}$			22			15			pF

Typical Characteristics

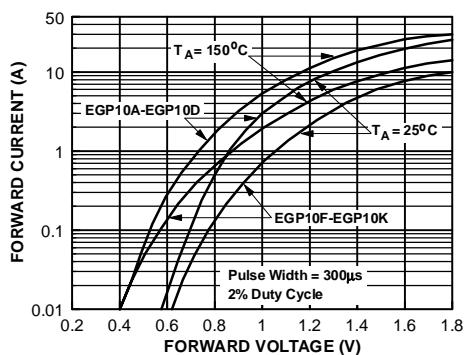
Forward Current Derating Curve



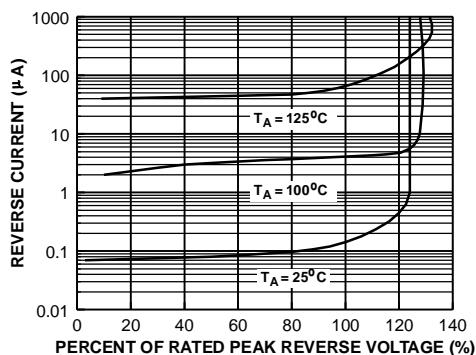
Non-Repetitive Surge Current



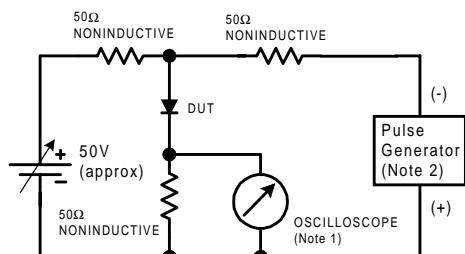
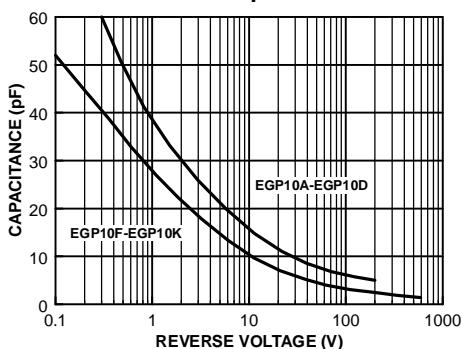
Forward Characteristics



Reverse Characteristics

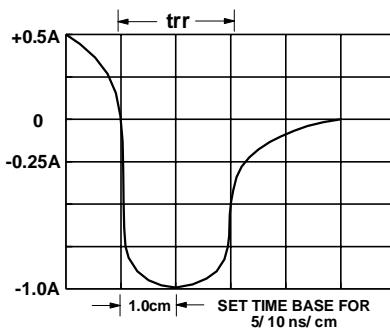


Junction Capacitance



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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