

Rectifier, High Efficiency, Glass Passivated, 1.0 A

EGP10B - EGP10K



AXIAL LEAD / DO-41
CASE 017AH

Features

- Superfast Recovery Time for High Efficiency
- Low Forward Voltage, High Current Capability
- Low Leakage Current
- High Surge Current Capability

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
I _O	Average Rectified Current 0.375" lead length @ T _L = 75°C	1.0	A
I _{f(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/°C
I _C	Thermal Resistance, Junction to Ambient	50	°C/W
T _J , T _{STG}	Junction and Storage Temperature Range	-65~150	°C

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

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

MARKING DIAGRAM



EGP10X = Specific Device Code
X = B/C/D/F/G/K
Z = Assembly Code
YWW = Date Code (Year & Week)

ORDERING INFORMATION

See detailed ordering and shipping information on page 3 of this data sheet.

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Parameter	Device						Unit
	10B	10C	10D	10F	10G	10K	
Peak Repetitive Reverse Voltage	100	150	200	300	400	800	V
Maximum RMS Voltage	70	105	140	210	280	560	V
DC Reverse Voltage (Rated V _R)	100	150	200	300	400	800	V
Maximum Reverse Current at Rated V _R	T _A = 25°C	5.0					μA
	T _A = 125°C	100					μA
Maximum Reverse Recovery Time I _F = 0.5 A, I _R = 1.0 A, I _{rr} = 0.25 A	50					75	nS
Maximum Forward Voltage @ 2.0 A	0.95		1.25		1.7	V	
Typical Junction Capacitance V _R = 4.0 V, f = 1.0 MHz	22		15			pF	

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

*Pulse Test: Pulse Width ≤ 300 μs, Duty Cycle ≤ 2%.

EGP10B – EGP10K

TYPICAL PERFORMANCE CHARACTERISTICS

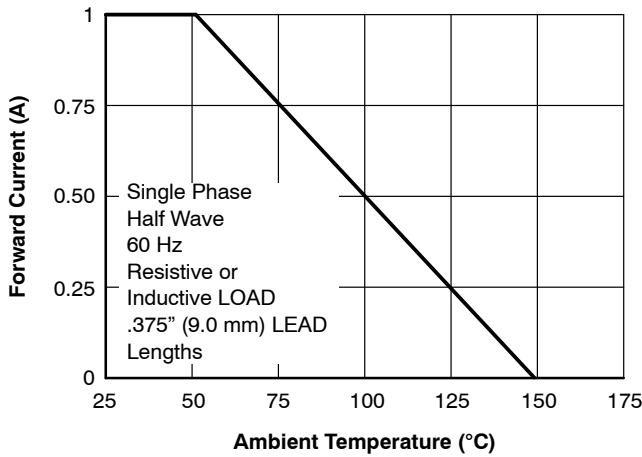


Figure 1. Forward Current Derating Curve

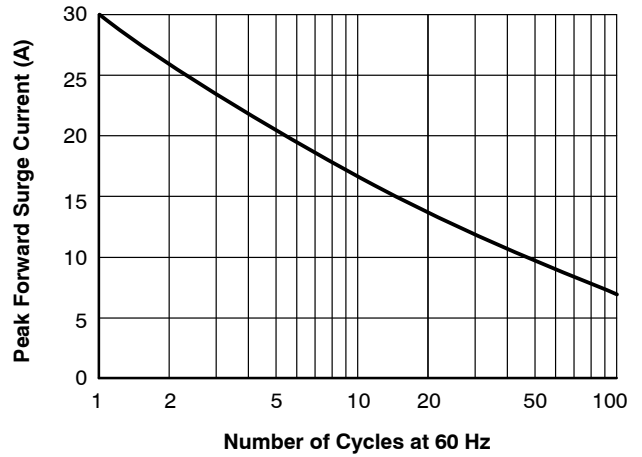


Figure 2. Non-Repetitive Surge Current

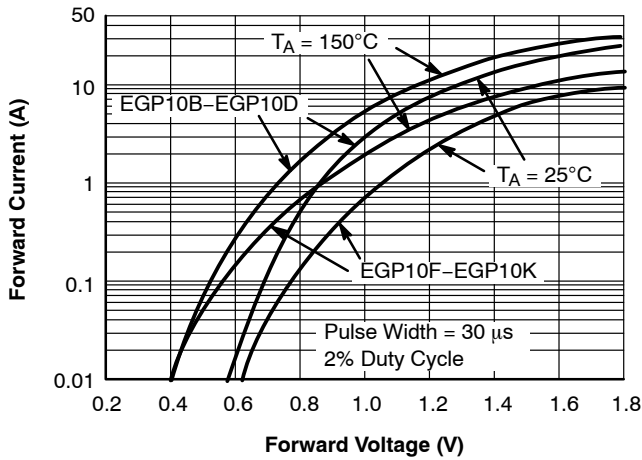


Figure 3. Forward Characteristics

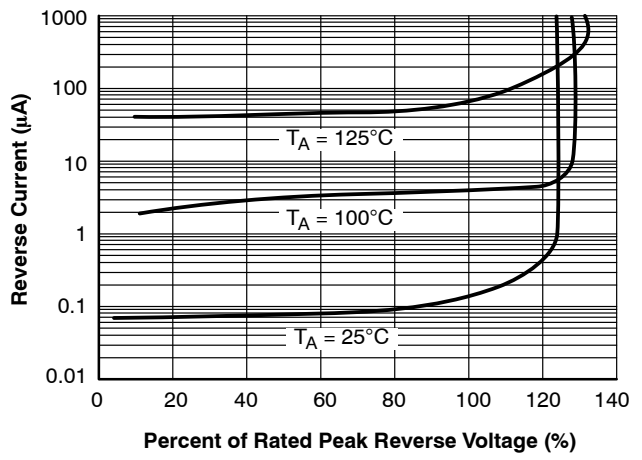


Figure 4. Reverse Characteristics

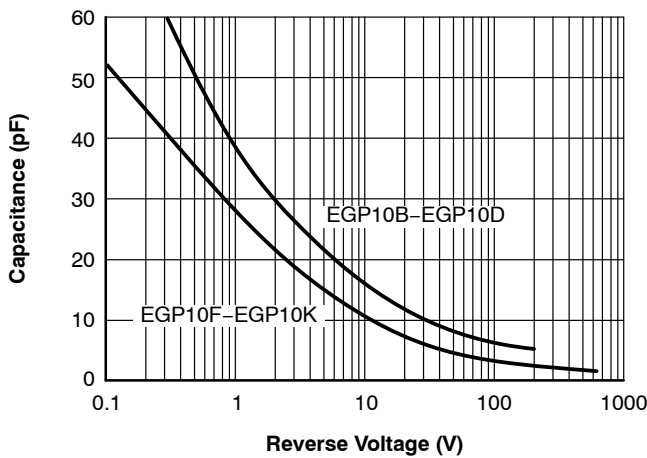
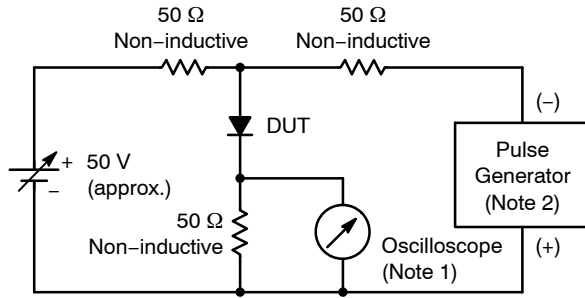


Figure 5. Junction Capacitance

EGP10B – EGP10K

Reverse Recovery Time Characteristic and Test Circuit Diagram



Notes:

1. Rise time = 7.0 ns max; Input impedance = 1.0 MΩ 22 pF.
2. Rise time = 10 ns max; Source impedance = 50 Ω.

Figure 6. Test Circuit Diagram

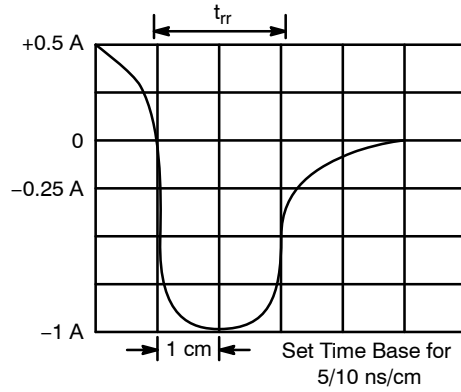


Figure 7. Reverse Recovery Time Characteristics

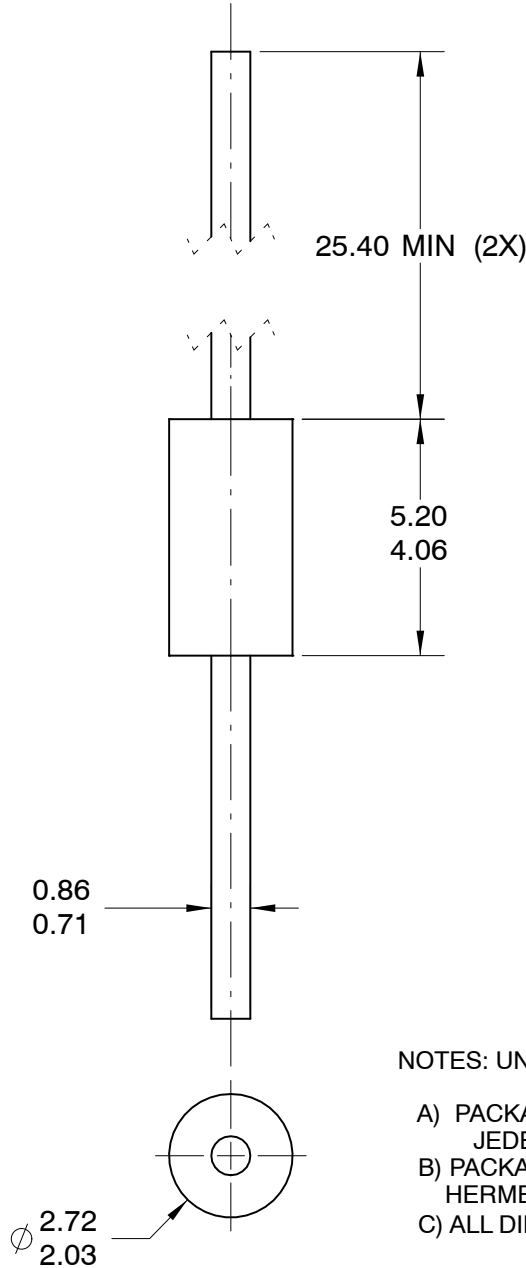
ORDERING INFORMATION

Device	Package	Shipping [†]
EGP10B	Axial Lead / DO-41 (Pb-Free)	5000 / Tape & Reel
EGP10C		
EGP10D		
EGP10F		
EGP10G		
EGP10K		

[†]For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

AXIAL LEAD / DO-41
CASE 017AH
ISSUE O


DATE 31 AUG 2016



NOTES: UNLESS OTHERWISE SPECIFIED

- A) PACKAGE STANDARD REFERENCE:
JEDEC DO-204 VARIATION AL.
- B) PACKAGE BODY CAN BE PLASTIC OR
HERMETICALLY SEALED GLASS.
- C) ALL DIMENSIONS ARE IN MILLIMETERS.

DOCUMENT NUMBER:	98AON13444G	Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red.
DESCRIPTION:	AXIAL LEAD / DO-41	PAGE 1 OF 1

ON Semiconductor and  are trademarks of Semiconductor Components Industries, LLC dba ON Semiconductor or its subsidiaries in the United States and/or other countries. ON Semiconductor reserves the right to make changes without further notice to any products herein. ON Semiconductor makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does ON Semiconductor assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. ON Semiconductor does not convey any license under its patent rights nor the rights of others.

onsemi, **Onsemi**, and other names, marks, and brands are registered and/or common law trademarks of Semiconductor Components Industries, LLC dba "**onsemi**" or its affiliates and/or subsidiaries in the United States and/or other countries. **onsemi** owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of **onsemi**'s product/patent coverage may be accessed at www.onsemi.com/site/pdf/Patent-Marking.pdf. **onsemi** reserves the right to make changes at any time to any products or information herein, without notice. The information herein is provided "as-is" and **onsemi** makes no warranty, representation or guarantee regarding the accuracy of the information, product features, availability, functionality, or suitability of its products for any particular purpose, nor does **onsemi** assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. Buyer is responsible for its products and applications using **onsemi** products, including compliance with all laws, regulations and safety requirements or standards, regardless of any support or applications information provided by **onsemi**. "Typical" parameters which may be provided in **onsemi** data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. **onsemi** does not convey any license under any of its intellectual property rights nor the rights of others. **onsemi** products are not designed, intended, or authorized for use as a critical component in life support systems or any FDA Class 3 medical devices or medical devices with a same or similar classification in a foreign jurisdiction or any devices intended for implantation in the human body. Should Buyer purchase or use **onsemi** products for any such unintended or unauthorized application, Buyer shall indemnify and hold **onsemi** and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that **onsemi** was negligent regarding the design or manufacture of the part. **onsemi** is an Equal Opportunity/Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner.

ADDITIONAL INFORMATION

TECHNICAL PUBLICATIONS:

Technical Library: www.onsemi.com/design/resources/technical-documentation
onsemi Website: www.onsemi.com

ONLINE SUPPORT: www.onsemi.com/support

For additional information, please contact your local Sales Representative at www.onsemi.com/support/sales

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[onsemi:](#)

[EGP10B](#) [EGP10C](#) [EGP10D](#) [EGP10F](#) [EGP10G](#) [EGP10K](#)