High Efficiency Rectifier
1.0 A Glass Passivated

EGP10A - EGP10K

ON Semiconductor®

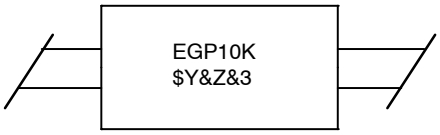
www.onsemi.com

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

MARKING DIAGRAM



EGP10K	= Specific Device Code
$Y	= ON Semiconductor Logo
&Z	= Assembly Code
&3	= Date Code

ABSOLUTE MAXIMUM RATINGS T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
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.

ELECTRICAL CHARACTERISTICS T_A = 25°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 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%.

TYPICAL PERFORMANCE CHARACTERISTICS

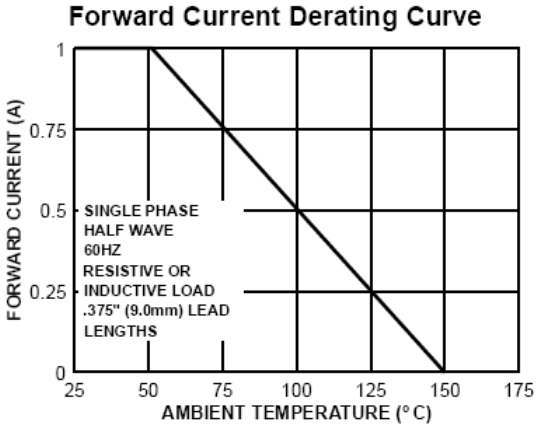


Figure 1.

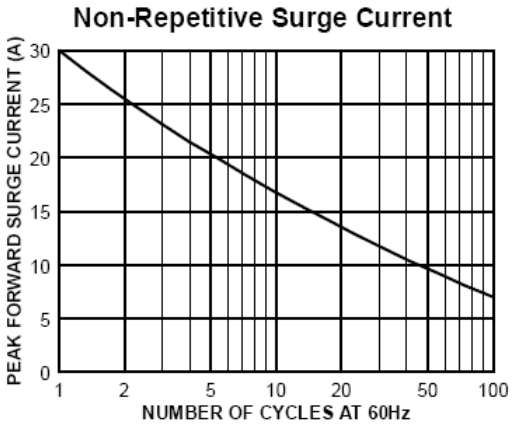


Figure 2.

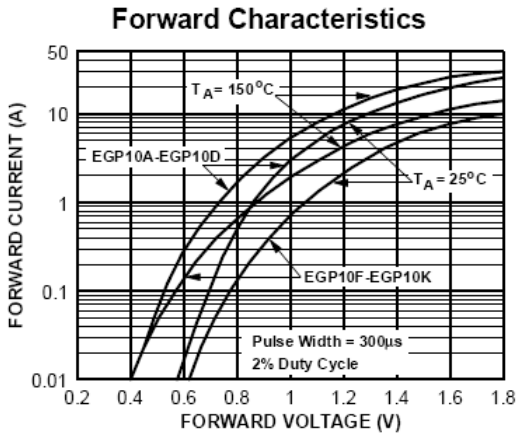
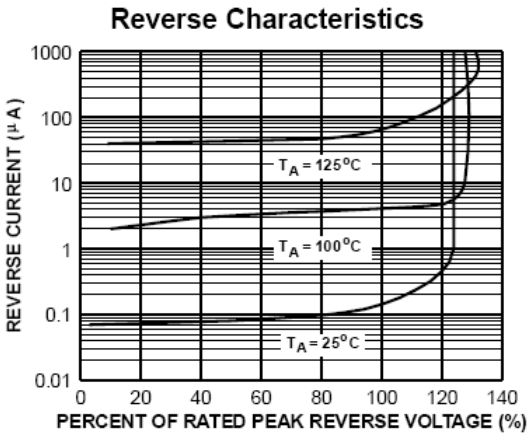


Figure 3.



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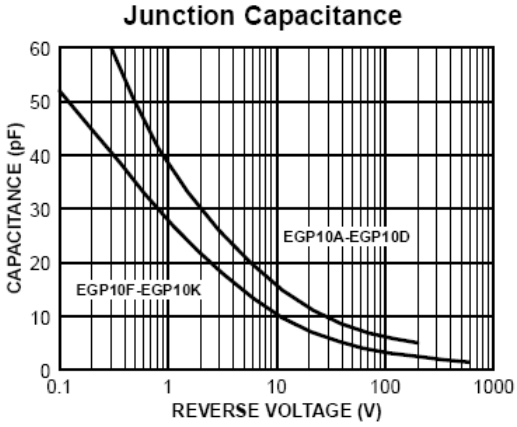


Figure 5.

Reverse Recovery Time Characterstic and Test Circuit Diagram

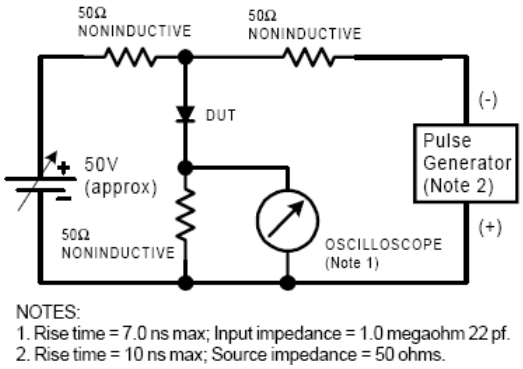


Figure 6.

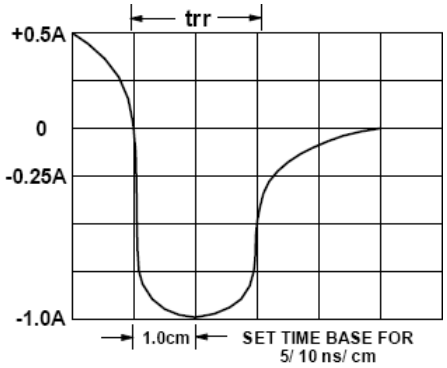


Figure 7.

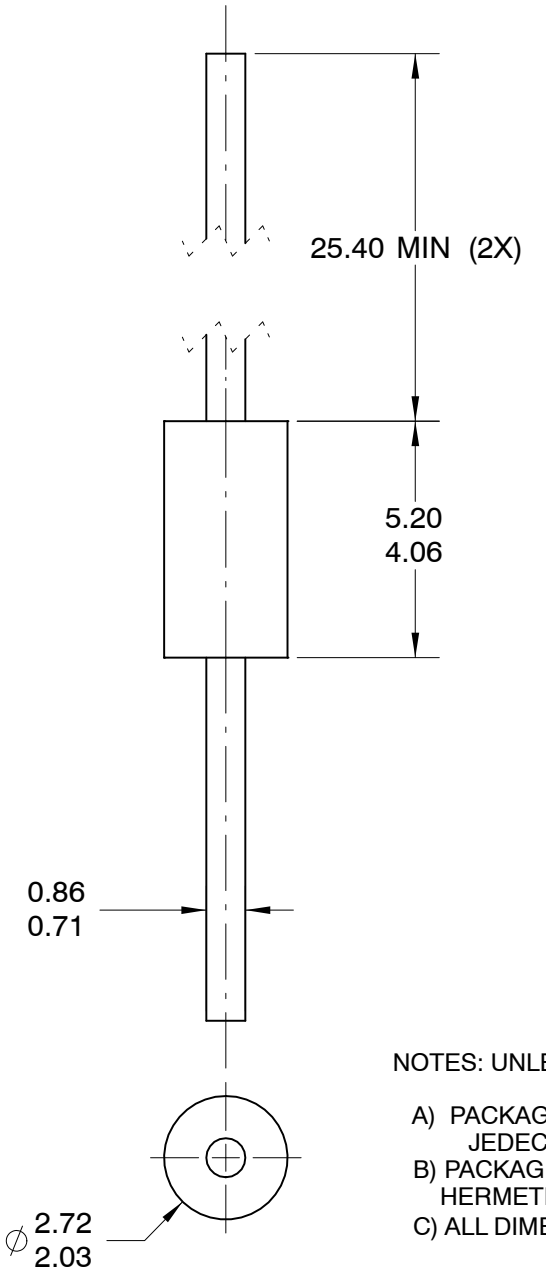
ORDERING INFORMATION

Device	Package	Shipping
EGP10K	Axial Lead / DO−41 CASE 017AH	5000 / Tape & Reel

†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.

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