

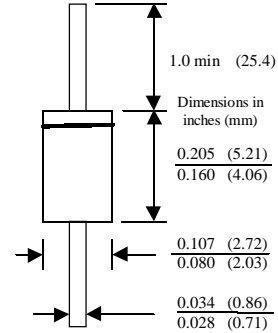
## EGP10A - EGP10K

### 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 Ampere Glass Passivated High Efficiency Rectifiers

### Absolute Maximum Ratings\* T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
I <sub>O</sub>	Average Rectified Current .375" lead length @ T <sub>L</sub> = 55°C	1.0	A
i <sub>f(surge)</sub>	Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	30	A
P <sub>D</sub>	Total Device Dissipation Derate above 25°C	2.5 17	W mW/°C
R <sub>θJA</sub>	Thermal Resistance, Junction to Ambient	50	°C/W
T <sub>stg</sub>	Storage Temperature Range	-65 to +150	°C
T <sub>J</sub>	Operating Junction Temperature	-65 to +150	°C

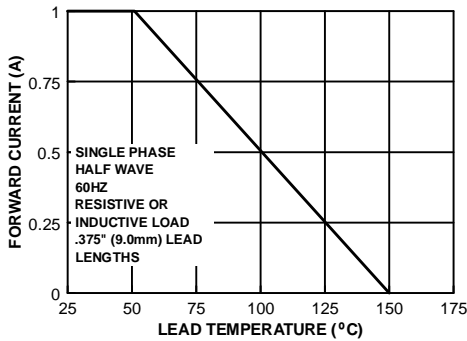
\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise noted

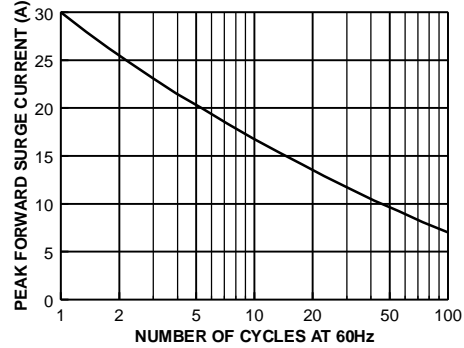
Parameter	Device								Units	
	10A	10B	10C	10D	10F	10G	10J	10K		
Peak Repetitive Reverse Voltage	50	100	150	200	300	400	600	800	V	
Maximum RMS Voltage	35	70	105	140	210	280	420	560	V	
DC Reverse Voltage (Rated V <sub>R</sub> )	50	100	150	200	300	400	600	800	V	
Maximum Reverse Current @ rated V <sub>R</sub> T <sub>A</sub> = 25°C T <sub>A</sub> = 125°C	5.0 100								μA μA	
Maximum Reverse Recovery Time I <sub>F</sub> = 0.5 A, I <sub>R</sub> = 1.0 A, I <sub>rr</sub> = 0.25 A	50						75		nS	
Maximum Forward Voltage @ 1.0 A	0.95			1.25		1.7			V	
Typical Junction Capacitance V <sub>R</sub> = 4.0 V, f = 1.0 MHz	22			15						pF

## Typical Characteristics

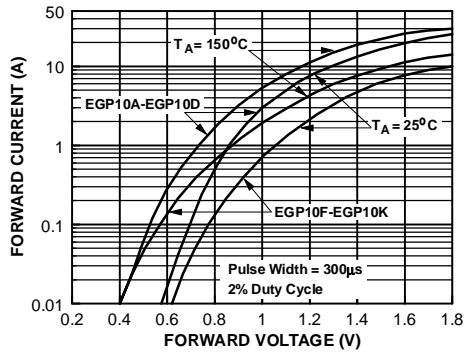
**Forward Current Derating Curve**



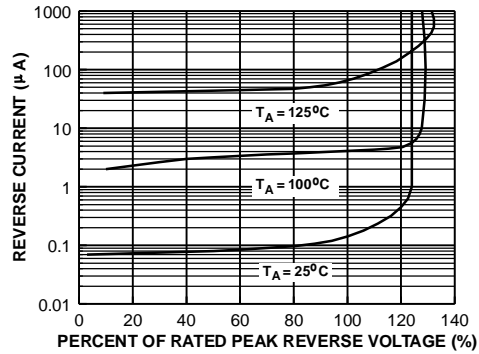
**Non-Repetitive Surge Current**



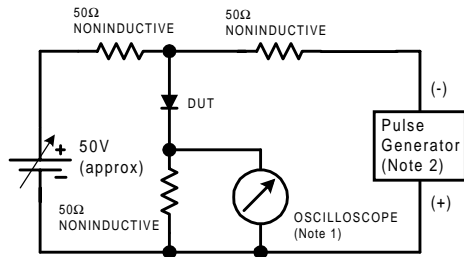
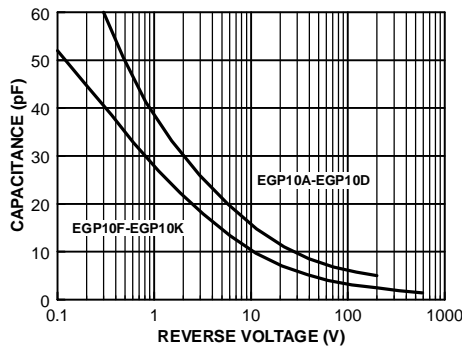
**Forward Characteristics**



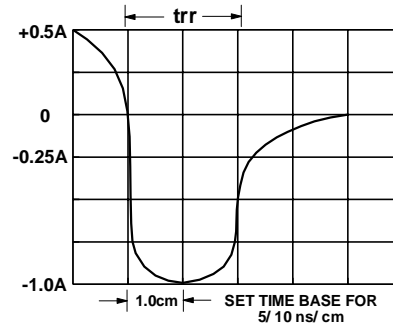
**Reverse Characteristics**



**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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FACT™	QS™
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FAST®	SuperSOT™-3
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