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EGP10A - EGP10K

1.0 Ampere Glass Passivated High Efficiency Rectifiers

Features

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



DO-41 Glass case
COLOR BAND DENOTES CATHODE

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

| Symbol | Parameter | Value | Units |
|-----------------------------------|---|-----------|------------|
| I _O | Average Rectified Current .375" lead length @ T _L = 75°C | 1.0 | A |
| I _{r(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 |
| l _C | Thermal Resistance, Junction to Ambient | 50 | °C/W |
| T _J , T _{STG} | Junction and Storage Temperature Range | -65 ~ 150 | °C |

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

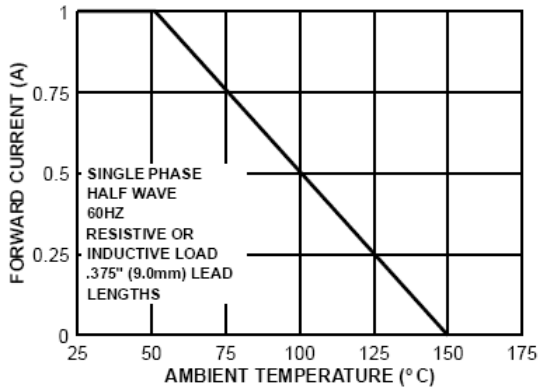
Electrical Characteristics* T_a = 25°C unless otherwise noted

| 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 @ rated V _R T _A = 25°C T _A = 125°C | 5.0 100 | | | | | | | | μA 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 @ 1.0 A | 0.95 | | | 1.25 | | 1.7 | | | V |
| Typical Junction Capacitance V _R = 4.0 V, f = 1.0 MHz | 22 | | | | 15 | | | | pF |

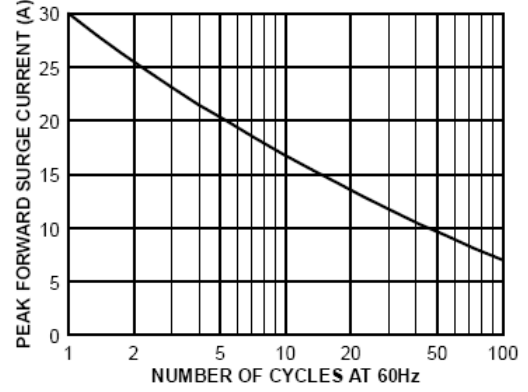
* Pulse Test: Pulse Width ≤ 300 μs, Duty Cycle ≤ 2%

Typical Performance Characteristics

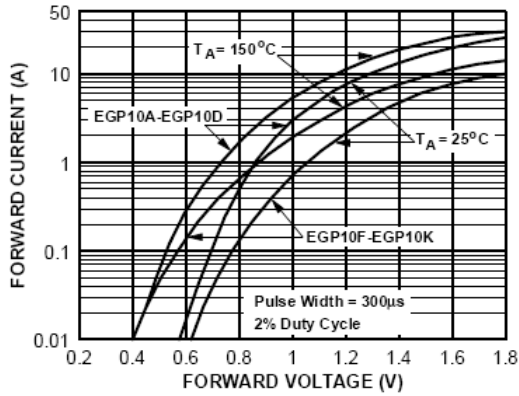
Forward Current Derating Curve



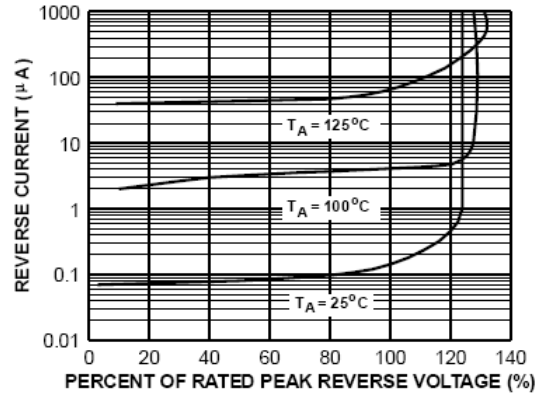
Non-Repetitive Surge Current



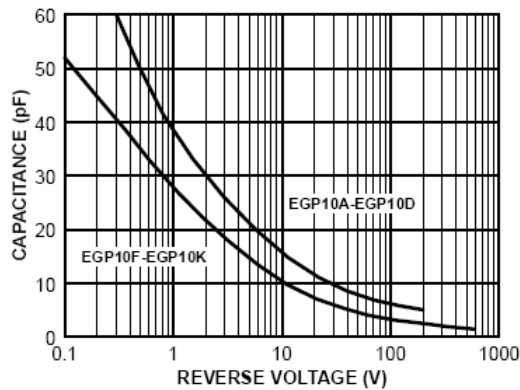
Forward Characteristics



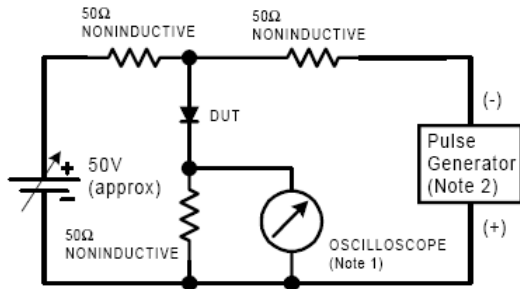
Reverse Characteristics



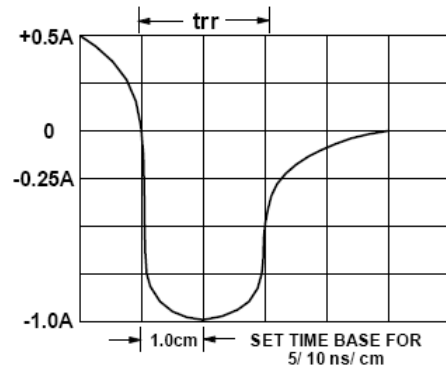
Junction Capacitance



Reverse Recovery Time Characteristic and Test Circuit Diagram




- 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.





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Телефон: 8 (812) 309-75-97 (многоканальный)

Факс: 8 (812) 320-03-32

Электронная почта: ocean@oceanchips.ru

Web: <http://oceanchips.ru/>

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А