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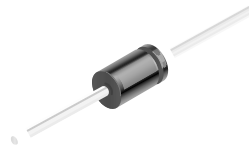


# EGP10A - EGP10K

## 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<sub>a</sub> = 25°C unless otherwise noted

| Symbol                            | Parameter                                                                                               | Value     | Units     |
|-----------------------------------|---------------------------------------------------------------------------------------------------------|-----------|-----------|
| I <sub>O</sub>                    | Average Rectified Current<br>.375 " lead length @ T <sub>L</sub> = 75°C                                 | 1.0       | A         |
| i <sub>f(surge)</sub>             | Peak Forward Surge Current<br>8.3 ms single half-sine-wave<br>Superimposed on rated load (JEDEC method) | 30        | A         |
| P <sub>D</sub>                    | Total Device Dissipation<br>Derate above 25°C                                                           | 2.5<br>17 | W<br>mW°C |
| l <sub>C</sub>                    | Thermal Resistance, Junction to Ambient                                                                 | 50        | °C/W      |
| T <sub>J</sub> , T <sub>STG</sub> | Junction and Storage Temperature Range                                                                  | -65 ~ 150 | °C        |

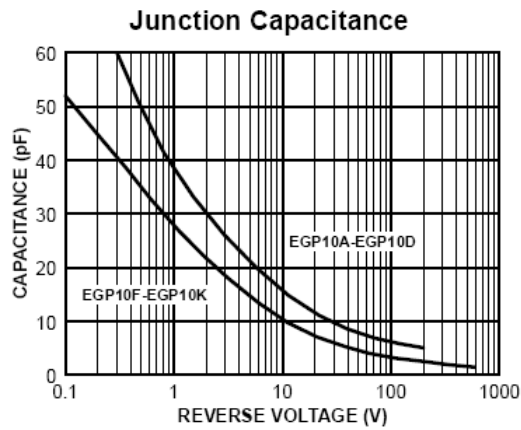
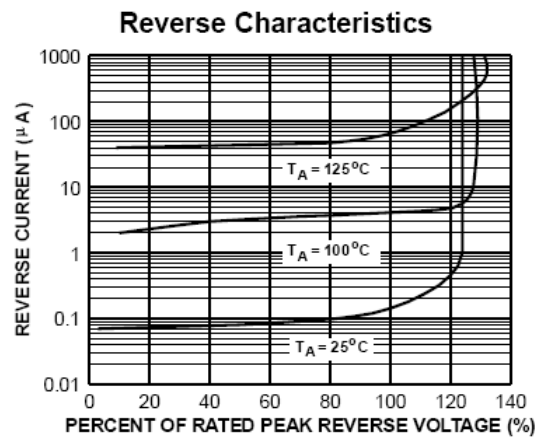
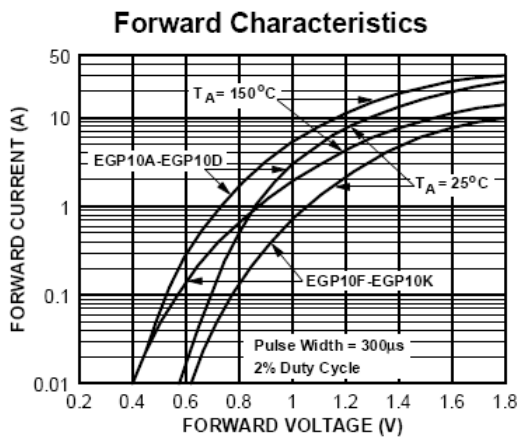
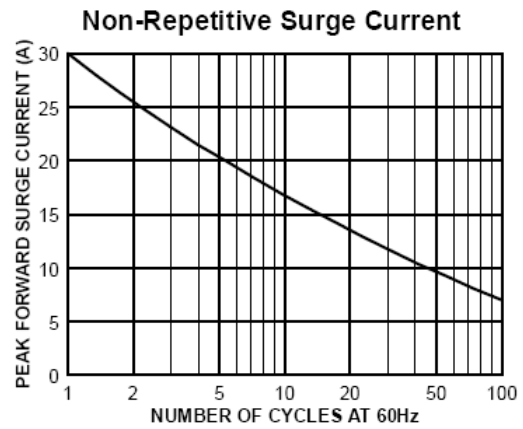
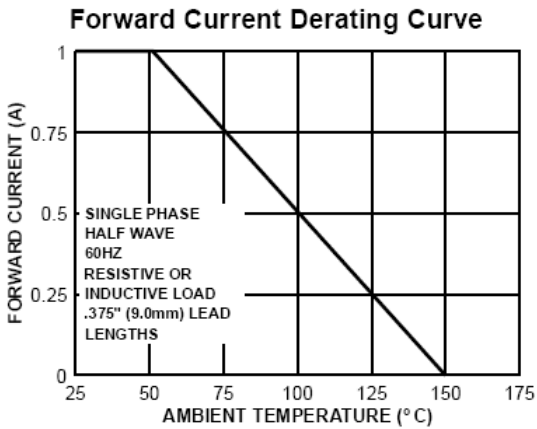
\* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### Electrical Characteristics\* T<sub>a</sub> = 25°C unless otherwise noted

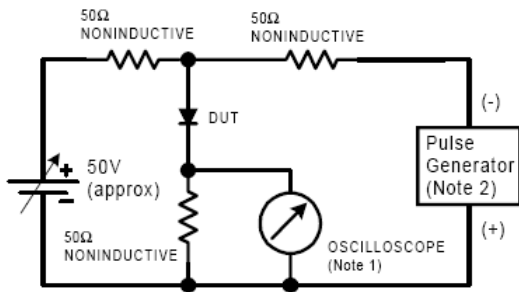
| Parameter                                                                                                 | Device     |     |     |      |     |     |     |     | Units    |
|-----------------------------------------------------------------------------------------------------------|------------|-----|-----|------|-----|-----|-----|-----|----------|
|                                                                                                           | 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<br>@ rated V <sub>R</sub> T <sub>A</sub> = 25°C<br>T <sub>A</sub> = 125°C         | 5.0<br>100 |     |     |      |     |     |     |     | μA<br>μA |
| Maximum Reverse Recovery Time<br>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<br>V <sub>R</sub> = 4.0 V, f = 1.0 MHz                                       | 22         |     |     | 15   |     |     |     |     | pF       |

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

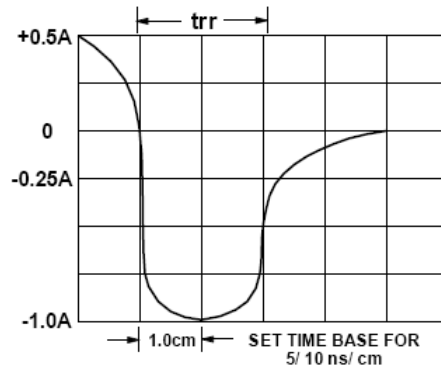
## Typical Performance Characteristics



### 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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