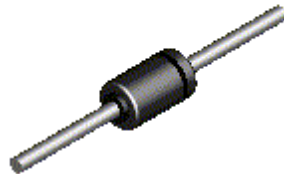


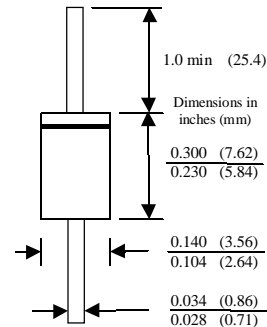
EGP20A - EGP20K

Features

- Glass passivated cavity-free junction.
- High surge current capability.
- Low leakage current.
- Superfast recovery time for high efficiency.
- Low forward voltage, high current capability.



DO-15
COLOR BAND DENOTES CATHODE



2.0 Ampere Glass Passivated High Efficiency Rectifiers

Absolute Maximum Ratings*

$T_A = 25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Value | Units |
|-----------------------|---|-------------|---------------------------|
| I_O | Average Rectified Current .375" lead length @ $T_A = 55^\circ\text{C}$ | 2.0 | A |
| $I_{f(\text{surge})}$ | Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method) | 75 | A |
| P_D | Total Device Dissipation Derate above 25°C | 3.13 25 | W mW/ $^\circ\text{C}$ |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient | 40 | $^\circ\text{C}/\text{W}$ |
| $R_{\theta JL}$ | Thermal Resistance, Junction to Lead | 15 | $^\circ\text{C}/\text{W}$ |
| T_{stg} | Storage Temperature Range | -65 to +150 | $^\circ\text{C}$ |
| T_J | Operating Junction Temperature | -65 to +150 | $^\circ\text{C}$ |

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

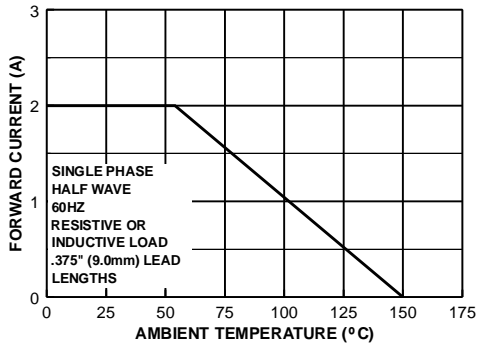
Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

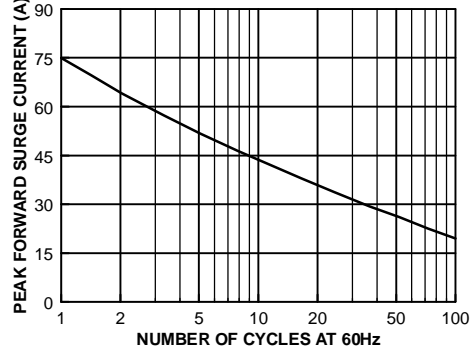
| Parameter | Device | | | | | | | | Units |
|--|------------|-----|-----|-----|------|-----|-----|-----|--------------------------------|
| | 20A | 20B | 20C | 20D | 20F | 20G | 20J | 20K | |
| Peak Repetitive Reverse Voltage | 50 | 100 | 150 | 200 | 300 | 400 | 600 | 800 | V |
| Maximum RMS Voltage | 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 $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$ | 5.0 100 | | | | | | | | μA μA |
| Maximum Reverse Recovery Time $I_F = 0.5 \text{ A}$, $I_R = 1.0 \text{ A}$, $I_{rr} = 0.25 \text{ A}$ | 50 | | | | | | 75 | | nS |
| Maximum Forward Voltage @ 2.0 A | 0.95 | | | | 1.25 | | 1.7 | | V |
| Typical Junction Capacitance $V_R = 4.0 \text{ V}$, $f = 1.0 \text{ MHz}$ | 70 | | | | 45 | | | | pF |

Typical Characteristics

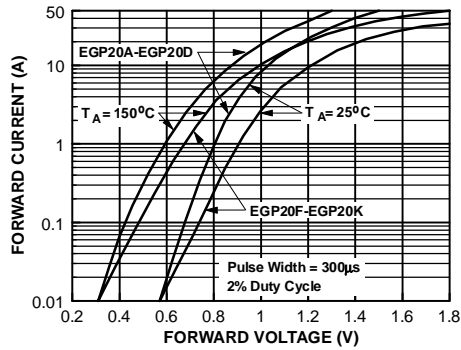
Forward Current Derating Curve



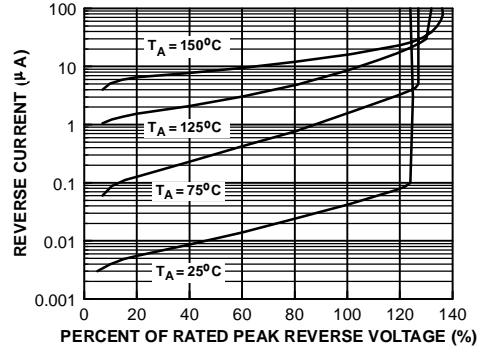
Non-Repetitive Surge Current



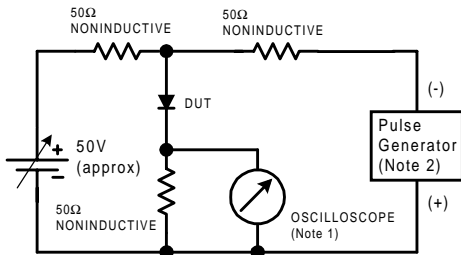
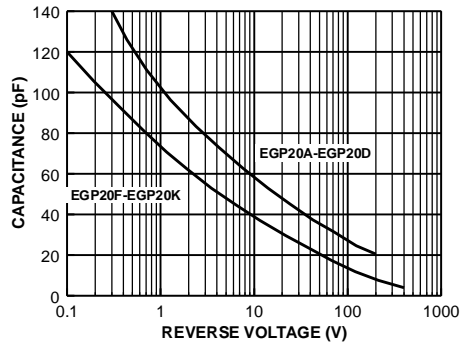
Forward Characteristics



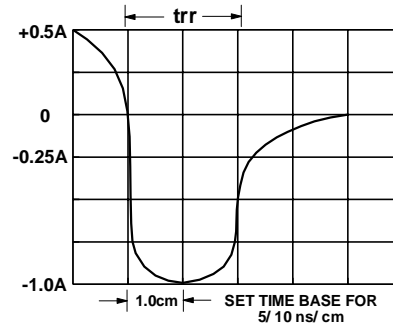
Reverse Characteristics



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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|--------------------------|------------------------|---|
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