



Discrete POWER & Signal Technologies

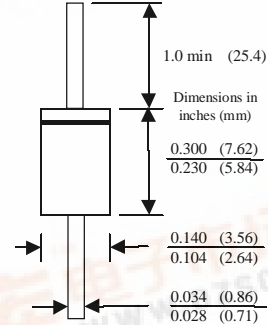
EGP20A - EGP20K

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°C unless otherwise noted

Symbol	Parameter	Value	Units
I _O	Average Rectified Current .375 " lead length @ T _A = 55°C	2.0	A
i _{f(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/°C
R _{θJA}	Thermal Resistance, Junction to Ambient	40	°C/W
R _{θJL}	Thermal Resistance, Junction to Lead	15	°C/W
T _{stg}	Storage Temperature Range	-65 to +150	°C
T _J	Operating Junction Temperature	-65 to +150	°C

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

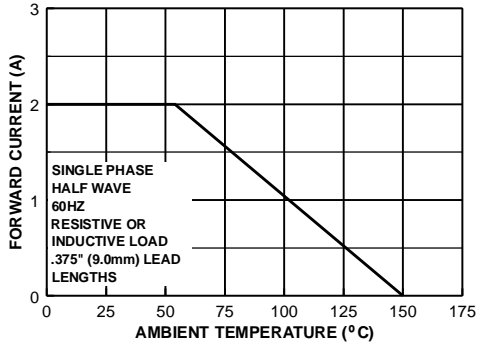
Electrical Characteristics T_A = 25°C unless otherwise noted

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°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 @ 2.0 A	0.95			1.25			1.7		V
Typical Junction Capacitance V _R = 4.0 V, f = 1.0 MHz	70				45				pF

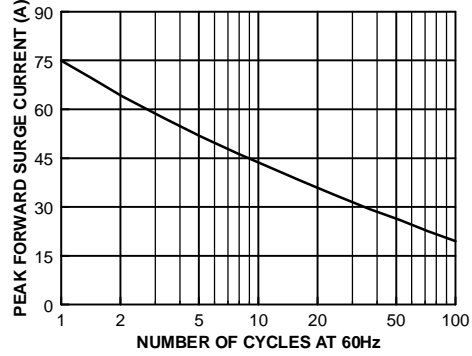


Typical Characteristics

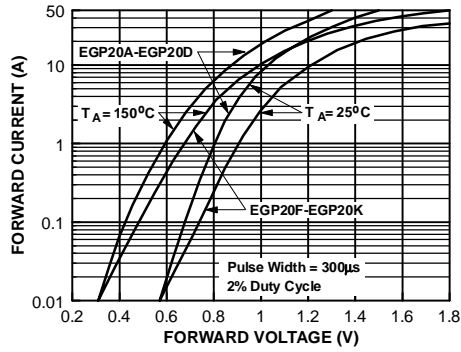
Forward Current Derating Curve



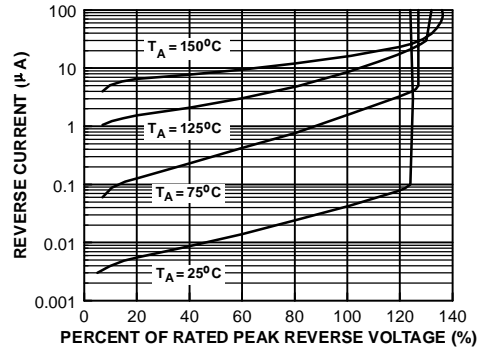
Non-Repetitive Surge Current



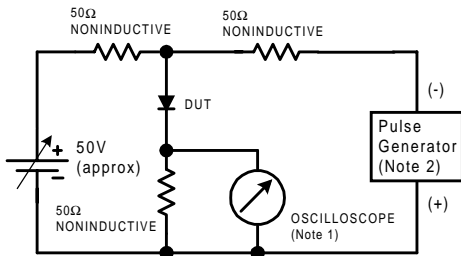
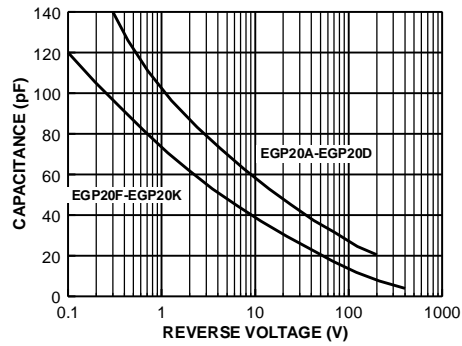
Forward Characteristics



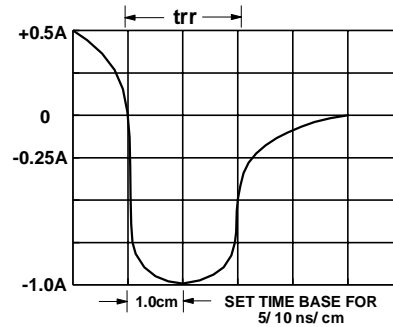
Reverse Characteristics



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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