

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

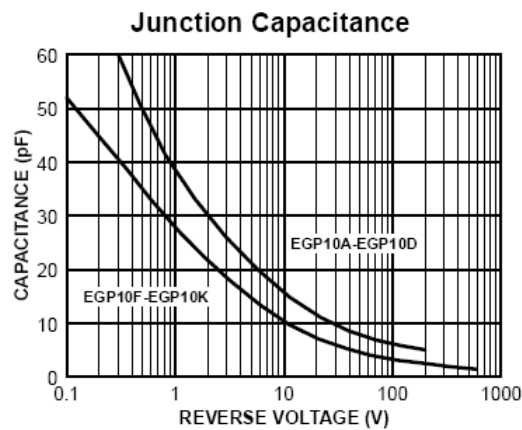
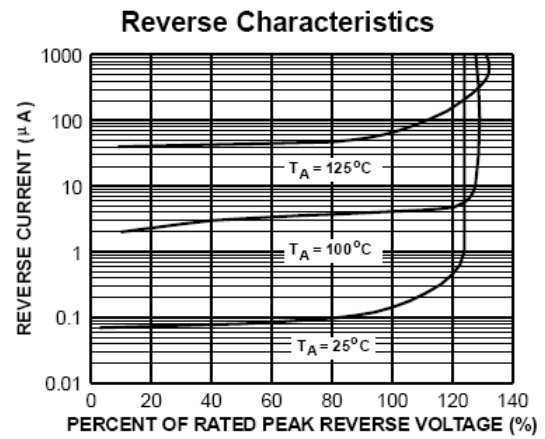
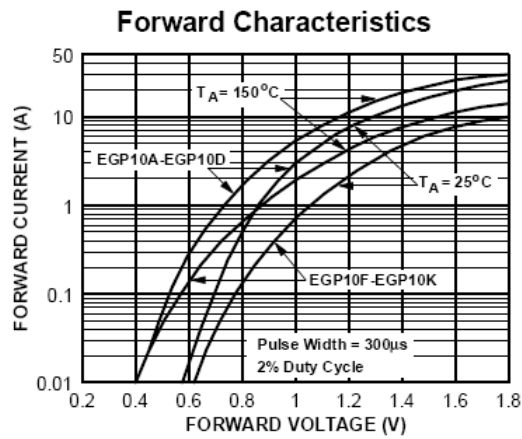
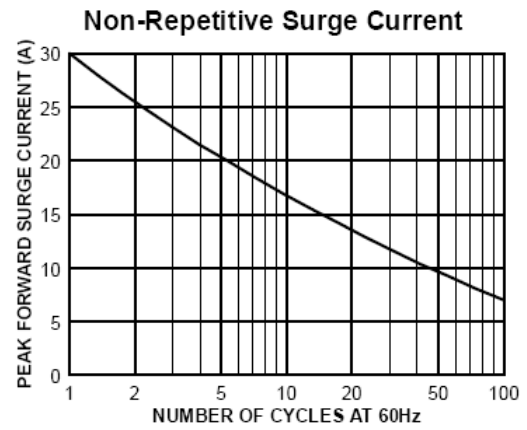
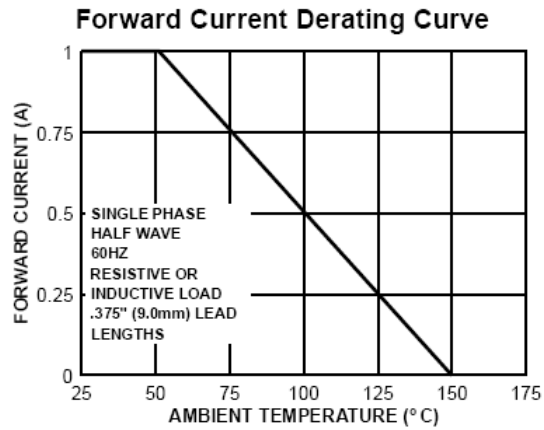
* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Electrical Characteristics* T_a = 25°C unless otherwise noted

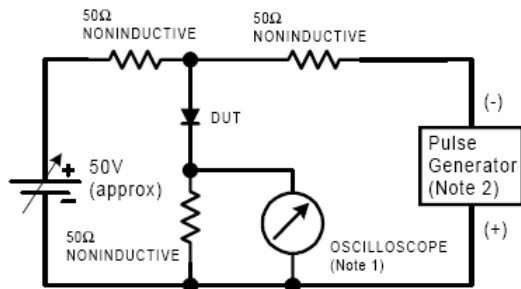
Parameter	Device								Units
	10A	10B	10C	10D	10F	10G	10J	10K	
Peak Repetitive Reverse Voltage	50	100	150	200	300	400	600	800	V
Maximum RMS Voltage	35	70	105	140	210	280	420	560	V
DC Reverse Voltage (Rated V _R)	50	100	150	200	300	400	600	800	V
Maximum Reverse Current @ rated V _R T _A = 25°C T _A = 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

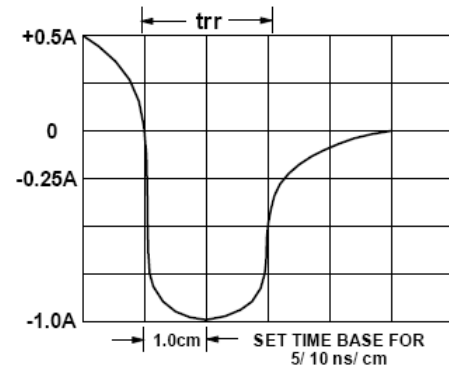


Reverse Recovery Time Characteristic and Test Circuit Diagram



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.





TRADEMARKS

The following are registered and unregistered trademarks and service marks Fairchild Semiconductor owns or is authorized to use and is not intended to be an exhaustive list of all such trademarks.

ACE ^x ®	Green FPS TM	Power247 [®]	SuperSOT TM -8
Build it Now TM	Green FPS TM e-Series TM	POWEREDGE [®]	SyncFET TM
CorePLUS TM	GTO TM	Power-SPM TM	The Power Franchise [®]
CROSSVOLT TM	i-Lo TM	PowerTrench [®]	the power franchise
CTL TM	IntelliMAX TM	Programmable Active Droop TM	TinyBoost TM
Current Transfer Logic TM	ISOPLANAR TM	QFET [®]	TinyBuck TM
EcoSPARK [®]	MegaBuck TM	QS TM	TinyLogic [®]
F [®]	MICROCOUPLER TM	QT Optoelectronics TM	TINYOPTO TM
Fairchild [®]	MicroFET TM	Quiet Series TM	TinyPower TM
Fairchild Semiconductor [®]	MicroPak TM	RapidConfigure TM	TinyPWM TM
FACT Quiet Series TM	Motion-SPM TM	SMART START TM	TinyWire TM
FACT [®]	OPTOLOGIC [®]	SPM [®]	µSerDes TM
FAST [®]	OPTOPLANAR [®]	STEALTH TM	UHC [®]
FastvCore TM	 ®	SuperFET TM	UniFET TM
FPS TM	PDP-SPM TM	SuperSOT TM -3	VCX TM
FRFET [®]	Power220 [®]	SuperSOT TM -6	
Global Power Resource SM			

DISCLAIMER

FAIRCHILD SEMICONDUCTOR RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION, OR DESIGN. FAIRCHILD DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENSE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS. THESE SPECIFICATIONS DO NOT EXPAND THE TERMS OF FAIRCHILD'S WORLDWIDE TERMS AND CONDITIONS, SPECIFICALLY THE WARRANTY THEREIN, WHICH COVERS THESE PRODUCTS.

LIFE SUPPORT POLICY

FAIRCHILD'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS WITHOUT THE EXPRESS WRITTEN APPROVAL OF FAIRCHILD SEMICONDUCTOR CORPORATION.

As used herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.
2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

PRODUCT STATUS DEFINITIONS

Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	First Production	This datasheet contains preliminary data; supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve design.
No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve design.
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Fairchild Semiconductor:](#)

[EGP10B](#)