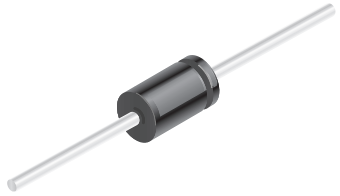
FAIRCHILD
SEMICONDUCTOR TM

EGP10A - EGP10K

Features

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



DO-41
COLOR BAND DENOTES CATHODE

1.0 Ampere Glass Passivated High Efficiency Rectifiers

Absolute Maximum Ratings*

T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
$I_{F(AV)}$	Average Rectified Current .375 " lead length @ T_L = 55°C	1.0	A
I_{FSM}	Non-repetitive 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
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	50	°C/W
T_{stg}	Storage Temperature Range	-65 to +150	°C
T_J	Operating Junction Temperature	-65 to +150	°C

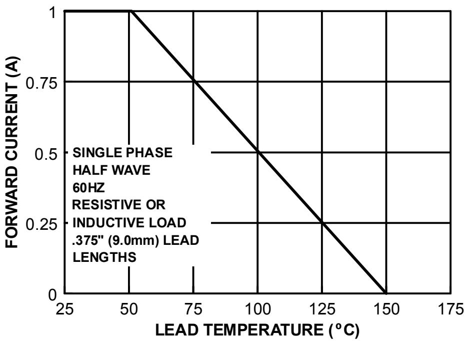
*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

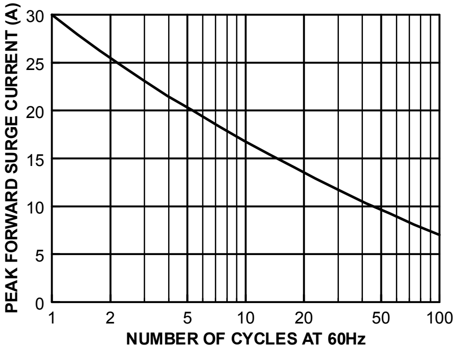
Electrical Characteristics

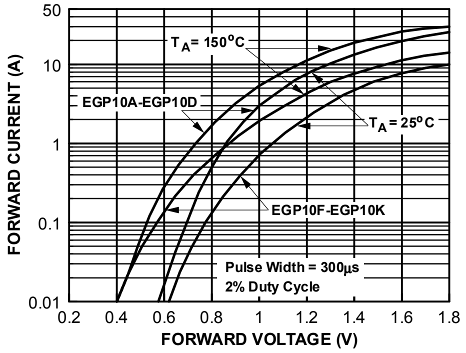
T_A = 25°C unless otherwise noted

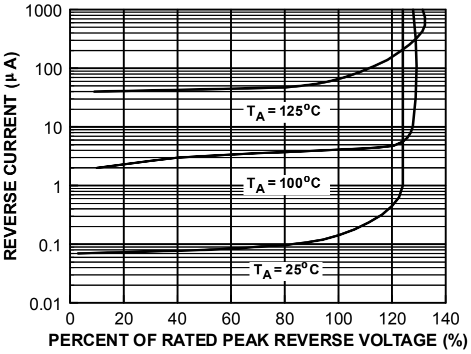
Symbol	Parameter	Device								Units
		10A	10B	10C	10D	10F	10G	10J	10K	
V_{RRM}	Maximum Repetitive Reverse Voltage	50	100	150	200	300	400	600	800	V
V_{RMS}	Maximum RMS Voltage	35	70	105	140	210	280	420	560	V
V_R	DC Reverse Voltage (Rated V_R)	50	100	150	200	300	400	600	800	V
I_{RM}	Maximum Instantaneous Reverse Current @ rated V_R T_A = 25°C T_A = 125°C	5.0 100								µA µA
t_{rr}	Maximum Reverse Recovery Time I_F = 0.5 A, I_R = 1.0 A, I_{rr} = 0.25 A	50						75		ns
V_{FM}	Maximum Instantaneous Forward Voltage @ 1.0 A	0.95				1.25		1.7		V
C	Typical Junction Capacitance V_R = 4.0 V, f = 1.0 MHz	22				15				pF

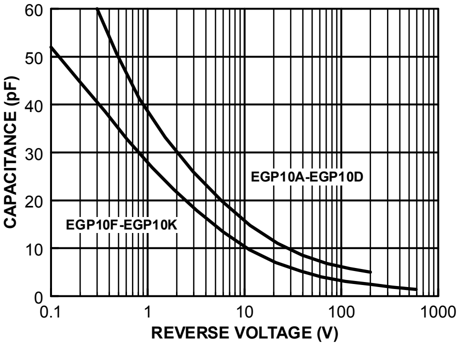
Typical Characteristics

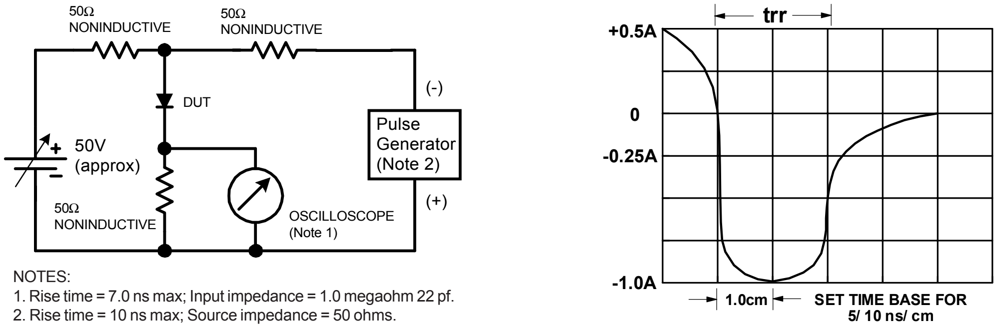

Forward Current Derating Curve


Non-Repetitive Surge Current


Forward Characteristics


Reverse Characteristics


Junction Capacitance

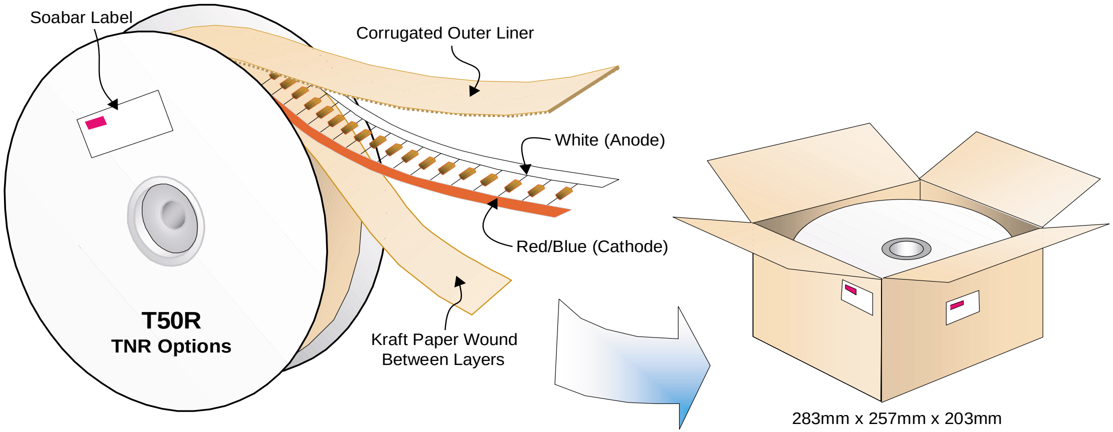


NOTES:
1. Rise time = 7.0 ns max; Input impedance = 1.0 megaohm 22 pf.
2. Rise time = 10 ns max; Source impedance = 50 ohms.

Reverse Recovery Time Characterstic and Test Circuit Diagram

DO-41 (Glass) Tape and Ammo Data

DO-41 (Glass) Packaging Configuration: Figure 1.0

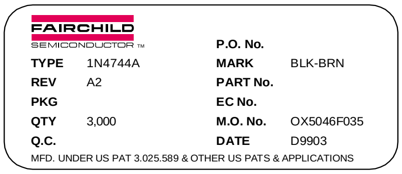


283mm x 257mm x 203mm
Intermediate Box (6,000 cap)

DO-41 (Glass) Packaging Information Table : Figure 2.0

DO-41 (Glass) Packaging Information			
Packaging Option	T50R	T50A	Standard (no flow code)
Packaging type	TNR	Ammo	Bag
Qty per Reel/Tube/Bag	3,000	3,000	250
Reel Size (inch diameter)	10.5	-	-
Inside Tape Spacing (mm)	52	52	-
Int Box Dimension (mm)	283x257x203	406x267x184	381x203x127
Max qty per Box	6,000	30,000	5,000
Weight per unit (gm)	0.320	0.320	0.320
Weight per Reel (kg)	1.356	1.077	-
Note/Comments			Bulk

Soabar Label sample

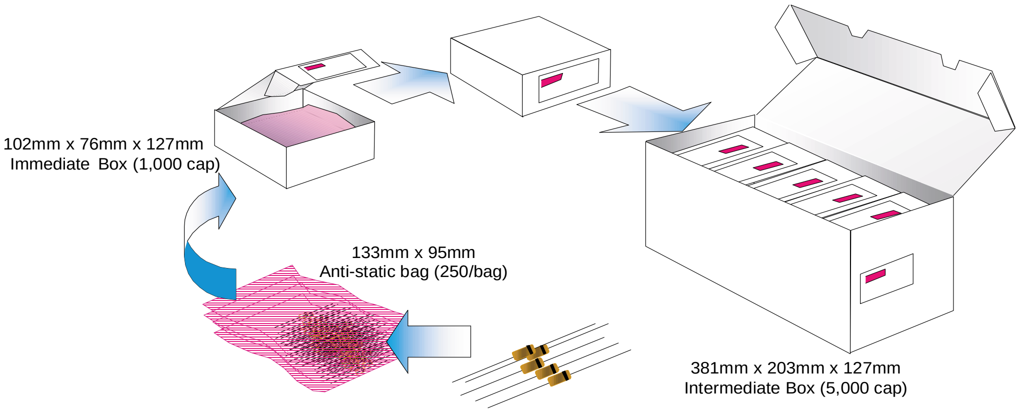


FAIRCHILD SEMICONDUCTOR™

		P.O. No.	
TYPE	1N4744A	**MARK**	BLK-BRN
REV	A2	**PART No.**	
PKG		**EC No.**	
QTY	3,000	**M.O. No.**	OX5046F035
Q.C.		**DATE**	D9903

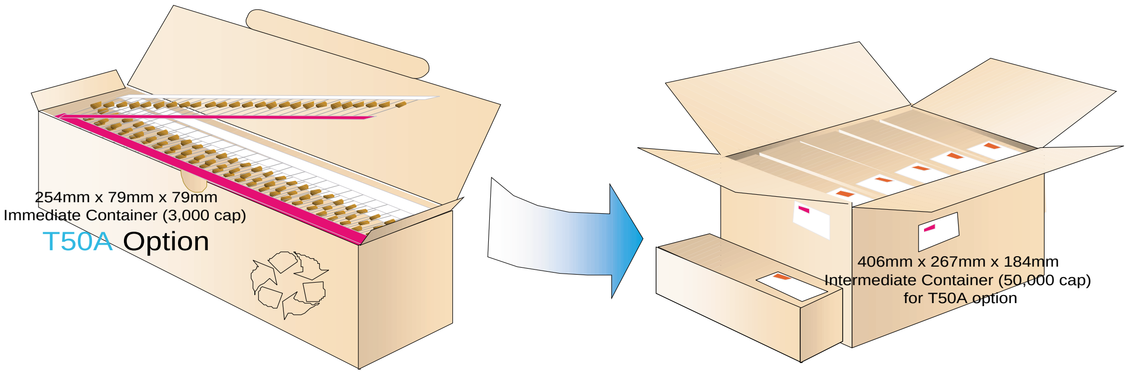
MFD. UNDER US PAT 3.025.589 & OTHER US PATS & APPLICATIONS

DO-41 (Glass) Bulk Packing Configuration: Figure 3.0

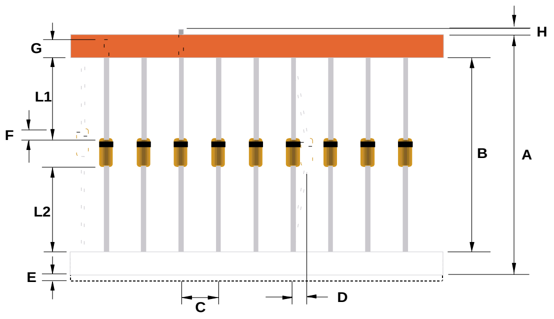


DO-41 (Glass) Tape and Ammo Data, continued

DO-41 (Glass) Ammo Packing Configuration: Figure 4.0



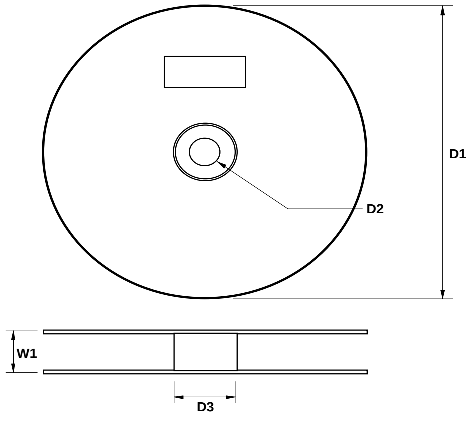
DO-41 (Glass) Taping Dimension: Figure 5.0



TAPING DIMENSIONS

	INCH	MM	MILS	NOTES
A	2.520 +0.066/ -0.027	64.00 +1.69/ -0.69	2519 +66.5/ -27.0	Overall width
B	2.047±0.027	52 ±0.69	2047±27	Inside Tape Spacing
C	0.200 ±0.0157	5.08 ±0.40	200 ±15.7	Component Pitch
D	0.047(max)	1.2(max)	47(max)	Component Misalignment
E	0.022(max)	0.55(max)	22(max)	Tape Mismatch
F	0.027(max)	±0.69	±27	Units in line w/ one another
G	0.126(min)	3.2(min)	126(min)	Lead amount between tapes
H	0	0	0	Lead amount beyond tapes
L1-L2	±0.027	±0.69	±27	Delta between two leads

DO-41 (Glass) Reel Dimension: Figure 6.0



REEL DIMENSIONS

ITEM DESCRIPTION	SYMBOL	MINIMUM	MAXIMUM
Reel Diameter	D1	10.375	10.625
Arbor Hole Diameter (Standard)	D2	1.245	1.255
Core Diameter	D3	3.190	3.310
Flange to Flange Outer Width	W1		3.400

Note: All Dimensions are in inches

DO-41 (Glass) Package Dimensions

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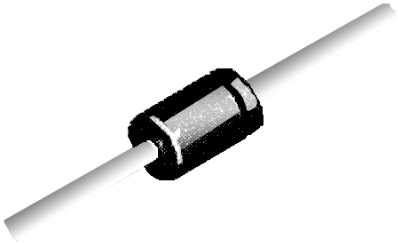
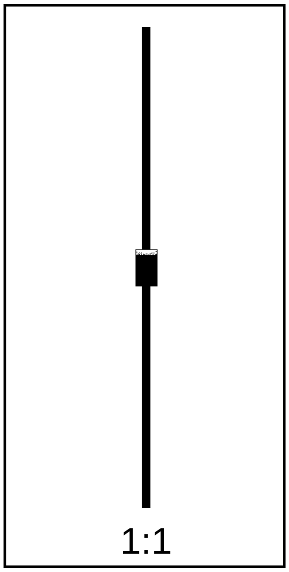
DO-41 (FS PKG Code D4)

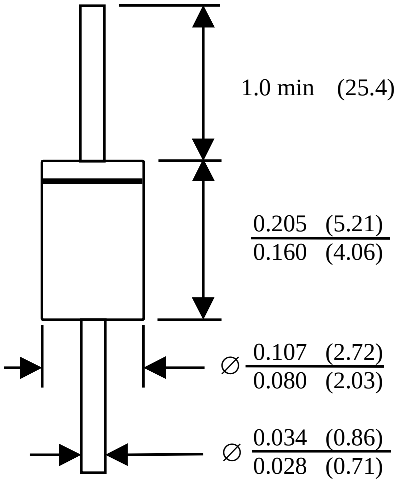




Scale 1:1 on letter size paper

Dimensions shown below are in:
inches [millimeters]

Part Weight per unit (gram): 0.32



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