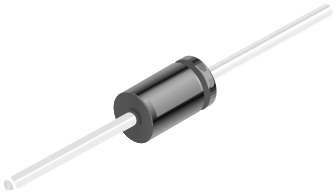
FAIRCHILD
SEMICONDUCTOR TM

SB120 - SB1100

Features

- 1.0 ampere operation at T_A = 75°C with no thermal runaway.
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.



DO-41
COLOR BAND DENOTES CATHODE

1.0 Ampere Schottky Barrier 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 = 75°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	1.25 12.5	W mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	80	°C/W
T_{stg}	Storage Temperature Range	-65 to +125	°C
T_J	Operating Junction Temperature	-65 to +125	°C

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

Electrical Characteristics

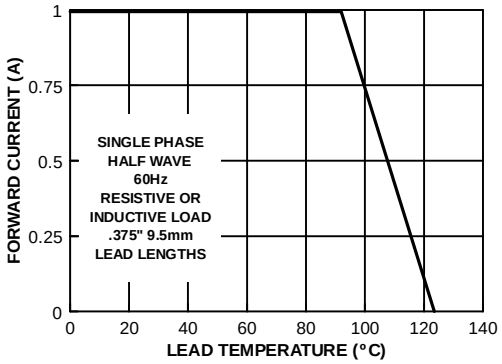
T_A = 25°C unless otherwise noted

Symbol	Parameter	Device							Units
		120	130	140	150	160	180	1100	
V_{RRM}	Maximum Repetitive Reverse Voltage	20	30	40	50	60	80	100	V
V_{RMS}	Maximum RMS Voltage	14	21	28	35	42	56	80	V
V_R	DC Reverse Voltage (Rated V_R)	20	30	40	50	60	80	100	V
I_{RM}	Maximum Instantaneous Reverse Current @ rated V_R T_A = 25°C T_A = 100°C	0.5 10							mA mA
V_{FM}	Maximum Instantaneous Forward Voltage @ 1.0 A	500			700		850		mV
I_{rr}	Maximum Full Load Reverse Current, Full Cycle T_A = 75°C	30							mA
C	Typical Junction Capacitance V_R = 4.0 V, f = 1.0 MHz	110							pF

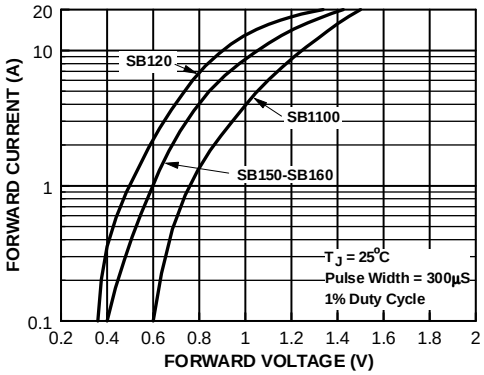
Schottky Barrier Rectifier
(continued)

Typical Characteristics

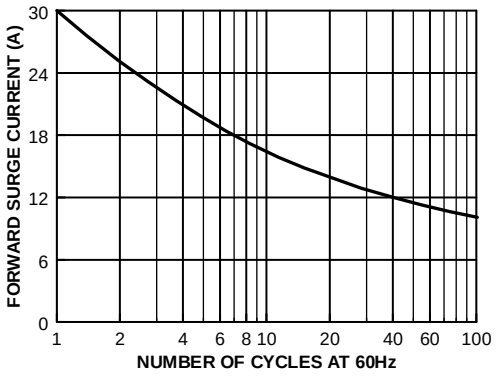
Forward Current Derating Curve



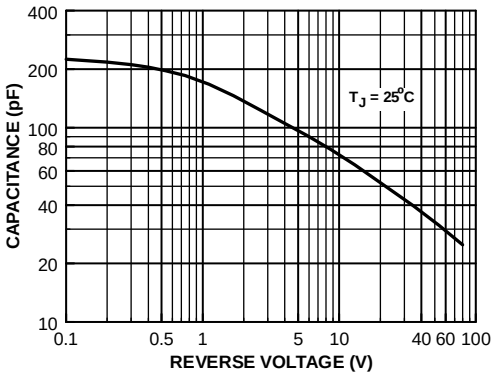
Forward Characteristics



Non-Repetitive Surge Current

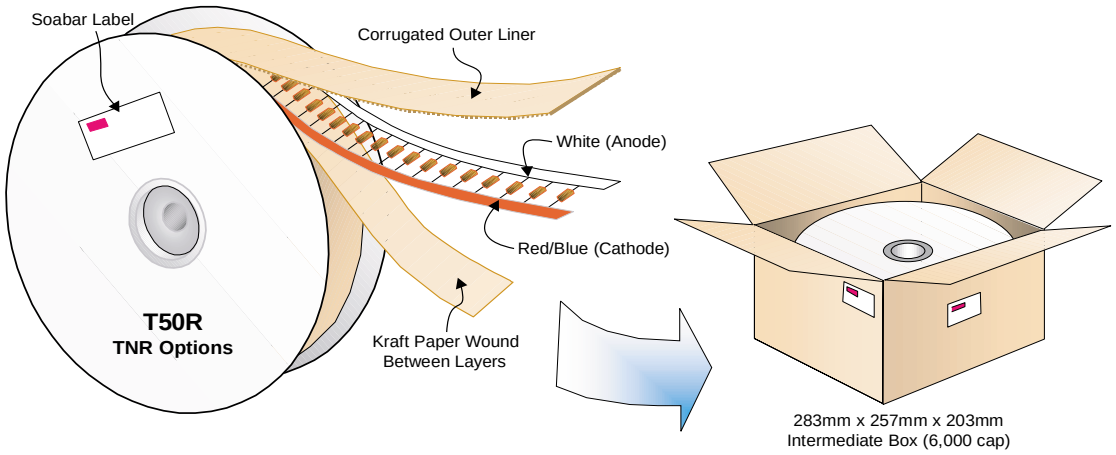


Junction Capacitance



DO-41 (Glass) Tape and Ammo Data

DO-41 (Glass) Packaging Configuration: Figure 1.0



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

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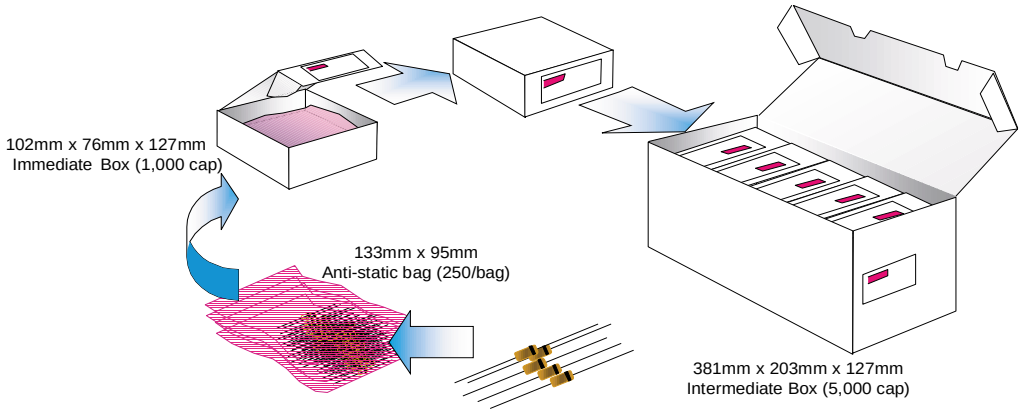
		P.O. No.	
TYPE	1N4744A	**MARK**	BLK-BRN
REV	A2	**PART No.**	
PKG		**EC No.**	
QTY	3,000	**M.O. No.**	OX5046F035
Q.C.		**DATE**	D9903

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

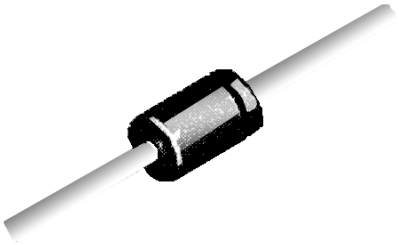
DO-41 (Glass) Bulk Packing Configuration: Figure 3.0

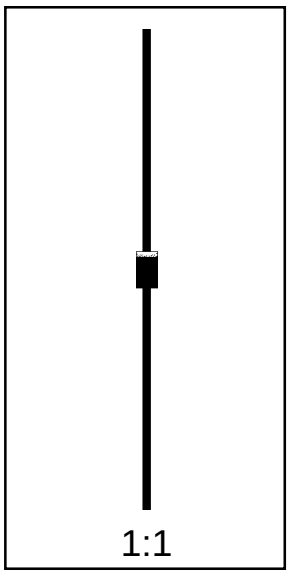


DO-41 (Glass) Package Dimensions

FAIRCHILD SEMICONDUCTOR TM

DO-41 (FS PKG Code D4)

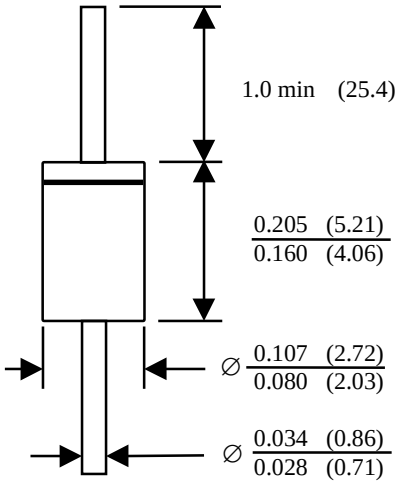




Scale 1:1 on letter size paper

Dimensions shown below are in:
inches [millimeters]

Part Weight per unit (gram): 0.32



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DenseTrench™	GTO™	QFET™	TinyLogic™
DOME™	HiSeC™	QS™	UHC™
EcoSPARK™	ISOPLANAR™	QT Optoelectronics™	UltraFET®
E^2CMOS^{TM}	LittleFET™	Quiet Series™	VCX™
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