



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



FULL 50-60Hz RECTIFICATION BRIDGE

PRELIMINARY DATASHEET

MAIN PRODUCT CHARACTERISTICS

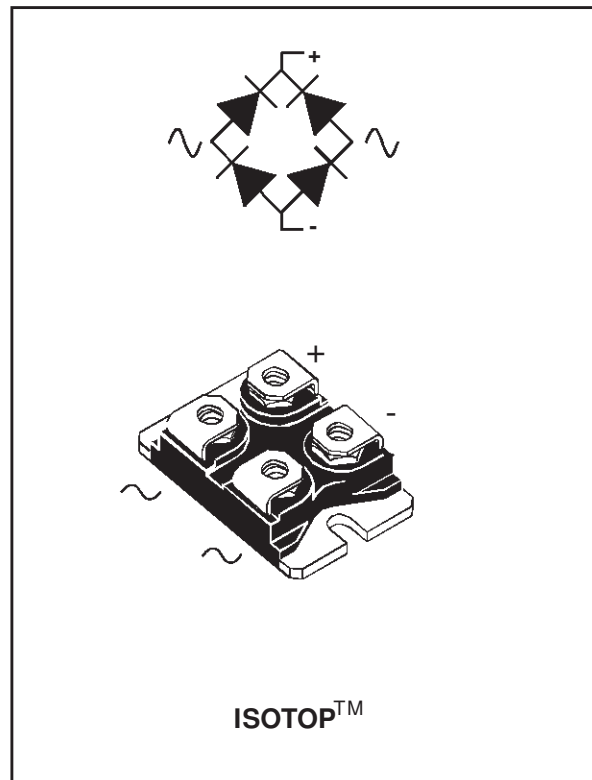
$I_{F(AV)}$	35 A
V_{RRM}	1000 V
T_j (max)	150 °C
V_F (max)	1.30 V

FEATURES AND BENEFITS

- COMPACT ISOTOP DESIGN COMPATIBLE WITH FAST DIODES AND TRANSISTORS.
- EXCELLENT THERMAL TRANSFER BETWEEN JUNCTION AND HEATSINK
- UL PENDING

DESCRIPTION

The Bridges series from ST Microelectronics has been designed to allow a better standardization of packages on boards principally designed with ISOTOP packages. The insulated package of the bridge will be able to sit on heatsink with other components. Single phase and 3-phase high power SMPS, UPS, MOTOR DRIVES and WELDING equipment will primarily find advantage in these industry package products.



ABSOLUTE RATINGS AND ELECTRICAL CHARACTERISTICS (per diode unless specified)

Symbol	Parameter	Value	Unit	
V_{RRM}	Repetitive peak reverse voltage	1000	V	
V_{RSM}	Non repetitive peak reverse voltage	1000	V	
$I_{F(AV)}$ total	Average forward current	$T_c = 80^\circ\text{C}$ sinusoidal	35	A
I_{FSM}	Surge non repetitive forward current 50Hz JEDEC method	300	A	
$I^2.t$	Fusing	660	$\text{A}^2.\text{s}$	
T_{stg}	Storage temperature range	- 55 to + 150	°C	
T_j	Maximum operating junction temperature	150	°C	
P_{max} total	Total power dissipation	50	W	

TM : ISOTOP is a trademark of ST Microelectronics.

BF3510TV

THERMAL RESISTANCES

Symbol	Parameter		Value	Unit
Rth (j-c)	Junction to case	total	0.5	°C/W

ELECTRICAL CHARACTERISTICS (Per diode) STATIC CHARACTERISTICS

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit	
I _R *	Reverse leakage current	V _R = 0.8 V _{RRM} δ < 2% t _p = 5ms	T _j = 25°C			10	μA
			T _j = 125°C			0.2	mA
V _F **	Forward voltage drop	I _F = 35 A δ < 2% t _p = 380μs	T _j = 25°C			1.4	V
			T _j = 125°C			1.3	V

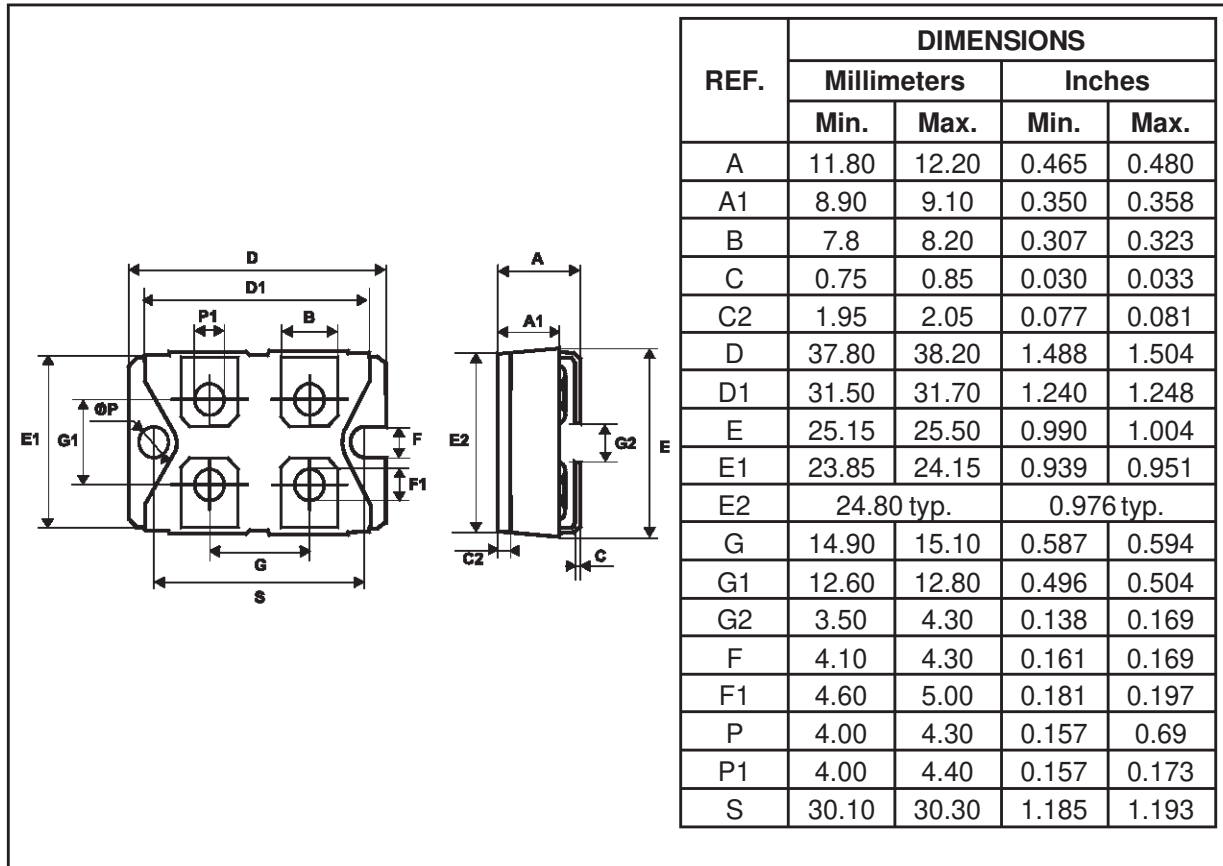
Pulse test : * t_p = 5 ms, duty cycle < 2 %

** t_p = 380 μs, duty cycle < 2 %

For one diode: $P_{cond} = 1.02 \times I_{F(AV)} + 0.008 \times I_{F(RMS)}^2$

$T_j = P_{cond} \times 4 \times R_{th(j-c)} + T_c$

PACKAGE MECHANICAL DATA
ISOTOP (Plastic)



Cooling method : by conduction (C)
Electrical isolation : 2500V_(RMS)

Capacitance : < 45 pF
Inductance : < 5 nH

- Recommended torque value : 1.3 N.m (MAX 1.5 N.m) for the 6 x M4 screws. (2 x M4 screws recommended for mounting the package on the heatsink and the 4 screws given with the screw version).
- The screws supplied with the package are adapted for mounting on a board (or other types of terminals) with a thickness of 0.6 mm min and 2.2 mm max.

Ordering type	Marking	Package	Weight	Base qty	Delivery mode
BF3510TV	BF3510TV	ISOTOP	27g without screws	10	Tube

■ Epoxy meets UL94,V0

Information furnished is believed to be accurate and reliable. However, STMicroelectronics assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of STMicroelectronics. Specifications mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied. STMicroelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of STMicroelectronics.

The ST logo is a registered trademark of STMicroelectronics

© 1999 STMicroelectronics - Printed in Italy - All rights reserved.

STMicroelectronics GROUP OF COMPANIES

Australia - Brazil - China - Finland - France - Germany - Hong Kong - India - Italy - Japan - Malaysia
Malta - Morocco - Singapore - Spain - Sweden - Switzerland - United Kingdom - U.S.A.

<http://www.st.com>

