# imall

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



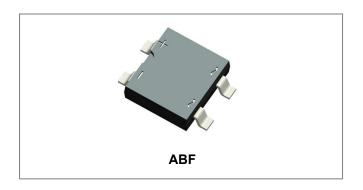


ABF2U THRU ABF10U

Technical Data Data Sheet N1827, Rev. A

RoHS HF

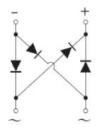
# ABF2U THRU ABF10U SINGLE PHASE 1.0AMP SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER



# Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Designed for surface mount application
- Plastic material-UL flammability 94V-0
- This is a Halogen Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

# **Circuit Diagram**



# **Mechanical Data**

- Case: SOPA-4, Molded plastic ABF
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: Polarity symbols marked on case
- Mounting Position: Any

# **Maximum Ratings**@T<sub>A</sub>=25°C unless otherwise specified

Single Phase half wave 60Hz, resistive or inductive load. For capacitive load current derate by 20%.

Characteristic	Symbol	ABF2U	ABF4U	ABF6U	ABF8U	ABF10U	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	200	400	600	800	1000	
RMS Reverse Voltage	V <sub>R(RMS)</sub>	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	200	400	600	800	1000	
Average Rectified Output Current @T <sub>c</sub> = 100°C	I <sub>F(AV)</sub>	1.0			V		
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	35				А	
Rating for fusing (t<8.3ms)	l²t	5.08				A <sup>2</sup> s	

• China - Germany - Korea - Singapore - United States •

http://www.smc-diodes.com - sales@ smc-diodes.com •



Data Sheet N1827, Rev. A

# **Electrical Characteristics:**

Characteristic	Symbol	ABF2U	ABF4U	ABF6U	ABF8U	ABF10U	Units
Forward voltage per element @ $I_F = 0.5A$ @ $I_F = 1.0A$	VF			0.95 1.0			V
Maximum DC reverse current $T_A = 25^{\circ}C$ at rated DC blocking voltage $T_A = 125^{\circ}C$	IR	5 200		μA			

\* Pulse width < 300  $\mu$ s, duty cycle < 2%

# **Thermal-Mechanical Specifications:**

Characteristic	Symbol	ABF2U	ABF4U	ABF6U	ABF8U	ABF10U	Units
Typical thermal resistance per leg (Note 1)	$R_{ extsf{ heta}JL}$ $R_{ extsf{ heta}JA}$			62.5 25			°C/W
Operating and storage temperature range	TJ,TSTG	-55 to +150		°C			

Note: 1. Thermal resistance form junction to ambient and junction to lead mounted on P.C.B. with 0.2X0.2"(5X5mm) copper pads.

# **Ratings and Characteristics Curves**

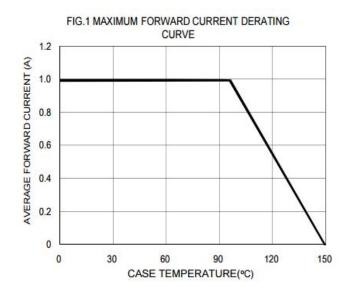
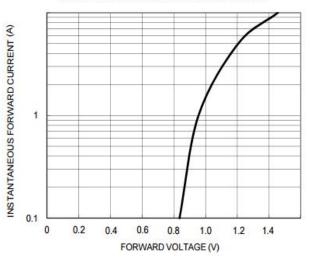


FIG. 2 TYPICAL FORWARD CHARACTERISTIC



ABF2U THRU ABF10U

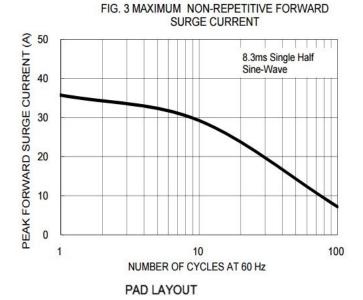


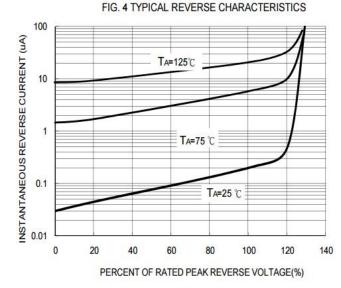


# ABF2U THRU ABF10U

## Technical Data Data Sheet N1827, Rev. A







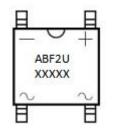
# ST 3.2 0,9

# **Ordering Information**

Device	Package	Shipping
ABF2U THRU	ABF	5000pcs / reel
ABF10U		

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

# Marking Diagram



Where XXXXX is YYWWL

ABF2U	= Type Numbe
	1

= Year = Week

YΥ

WW

Т

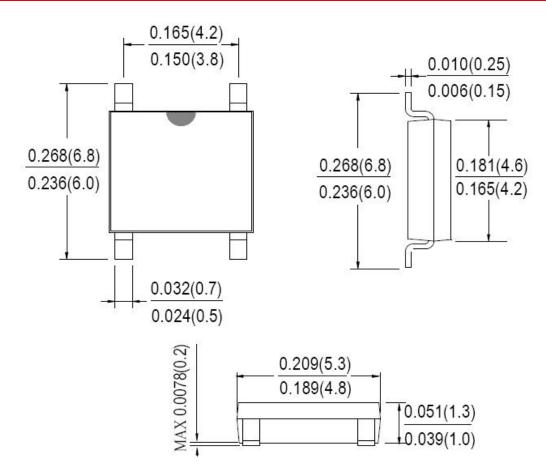
= Lot Number

```
Cautions: Molding resin
Epoxy resin UL:94V-0
```

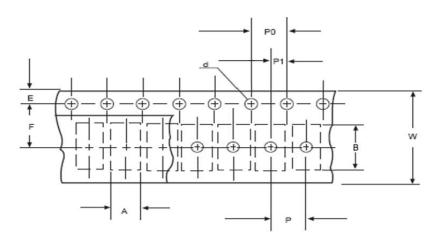
• http://www.smc-diodes.com - sales@ smc-diodes.com •



# Mechanical Dimensions ABF(Inches/Millimeters)



# **Carrier Tape & Reel Specification ABF**



SYMBOL	Millimeters				
OTMEOL	Min.	Max.			
A	5.00	5.40			
В	6.40	6.80			
d	1.40	1.60			
E	1.40	1.60			
F	5.55	5.75			
Р	3.90	4.10			
P0	3.90	4.10			
P1	1.90	2.10			
W	11.50	12.50			

• China - Germany - Korea - Singapore - United States •

http://www.smc-diodes.com - sales@ smc-diodes.com •



### Technical Data Data Sheet N1827, Rev. A



#### DISCLAIMER:

1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the SMC Diode Solutions sales department for the latest version of the datasheet(s).

2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.

3- In no event shall SMC Diode Solutions be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). SMC Diode Solution assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
 4- In no event shall SMC Diode Solutions be liable for any failure in a semiconductor device or any secondary damage resulting from use

at a value exceeding the absolute maximum rating.

5- No license is granted by the datasheet(s) under any patents or other rights of any third party or SMC Diode Solutions.
6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of SMC Diode Solutions.

7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations..

# • China - Germany - Korea - Singapore - United States •

http://www.smc-diodes.com - sales@ smc-diodes.com -