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.

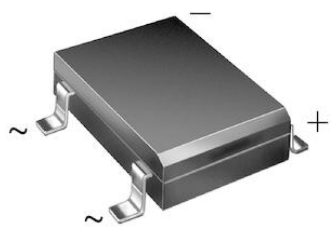
We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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

Technical Data
Data Sheet N1459, Rev. B

DB101S THRU DB107S SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIERS

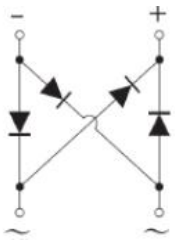


DB-S

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 Pb − Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: DB-S, molded plastic
- Terminals: plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting position: Any
- Lead Free: For RoHS / Lead Free Version,

Maximum Ratings@T_A=25°C unless otherwise specified

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

Characteristic	Symbol	DB 101S	DB 102S	DB 103S	DB 104S	DB 105S	DB 106S	DB 107S	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Forward Output Current (Note 1) @ T_C =100°C	$I_{F(AV)}$	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	45							A
I^2t Rating for Fusing (t < 8.3ms)	I^2t	8.404							A^2s

Technical Data
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Electrical Characteristics:

Characteristic	Symbol	DB 101S	DB 102S	DB 103S	DB 104S	DB 105S	DB 106S	DB 107S	Unit
Maximum Forward Voltage Drop per Bridge Element @I_F =1.0A, T_J=25°C	V_F	1.0							V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 125°C	I_R	5 200							μA
Typical Junction Capacitance (Note 2)	C_J	25							pF

* Pulse width < 300 μs, duty cycle < 2%

Thermal-Mechanical Specifications:

Characteristic	Symbol	DB 101S	DB 102S	DB 103S	DB 104S	DB 105S	DB 106S	DB 107S	Unit
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	40							°C/W
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	15							°C/W
Operating Junction and Storage Temperature Range	T_J , T_{STG}	-55+150							°C

Note: 1. Mounted on glass epoxy PC board with 1.3mm^2 solder pad.
2. Measured at 1.0 MHZ and applied reverse voltage of 4.0 VDC

Ratings and Characteristics Curves

Fig. 1 Output Current Derating Curve

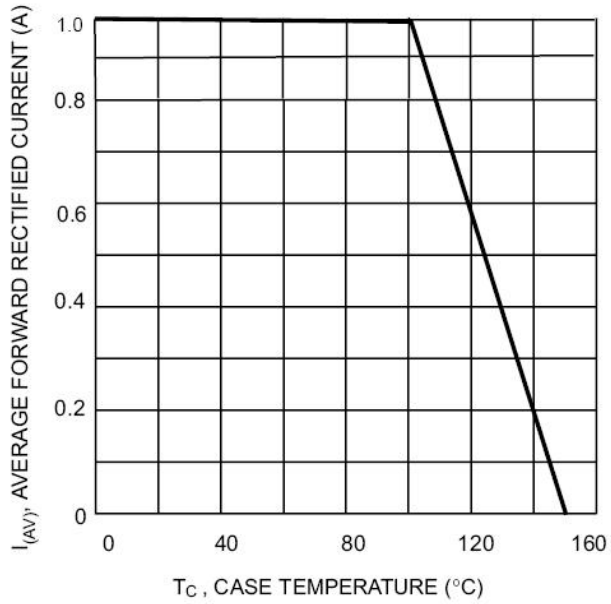


Fig. 2 Typical Forward Characteristics (per leg)

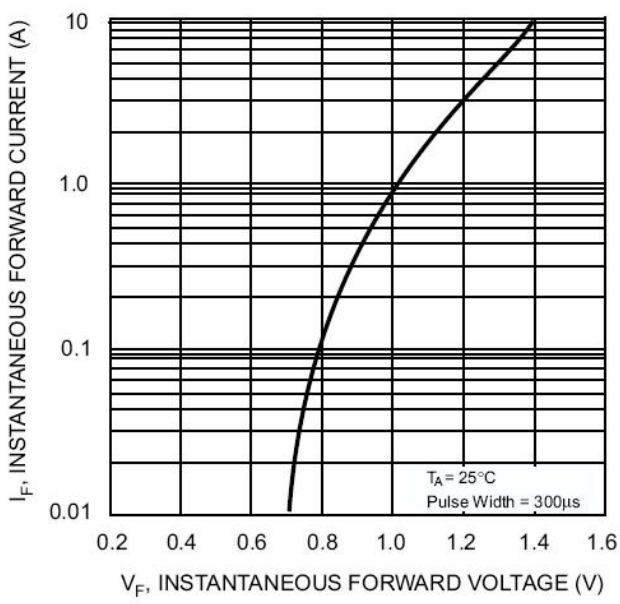


Fig. 3 Maximum Peak Forward Surge Current (per leg)

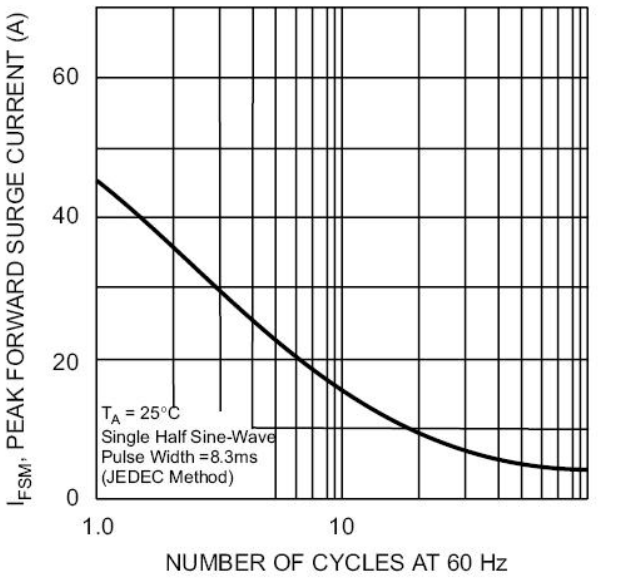
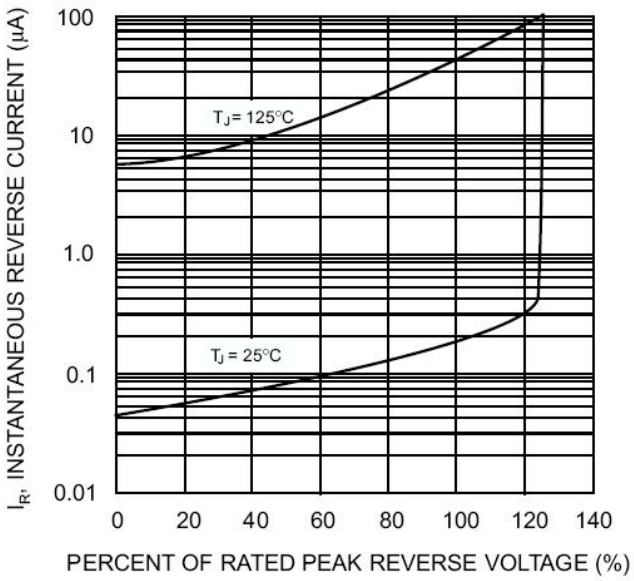
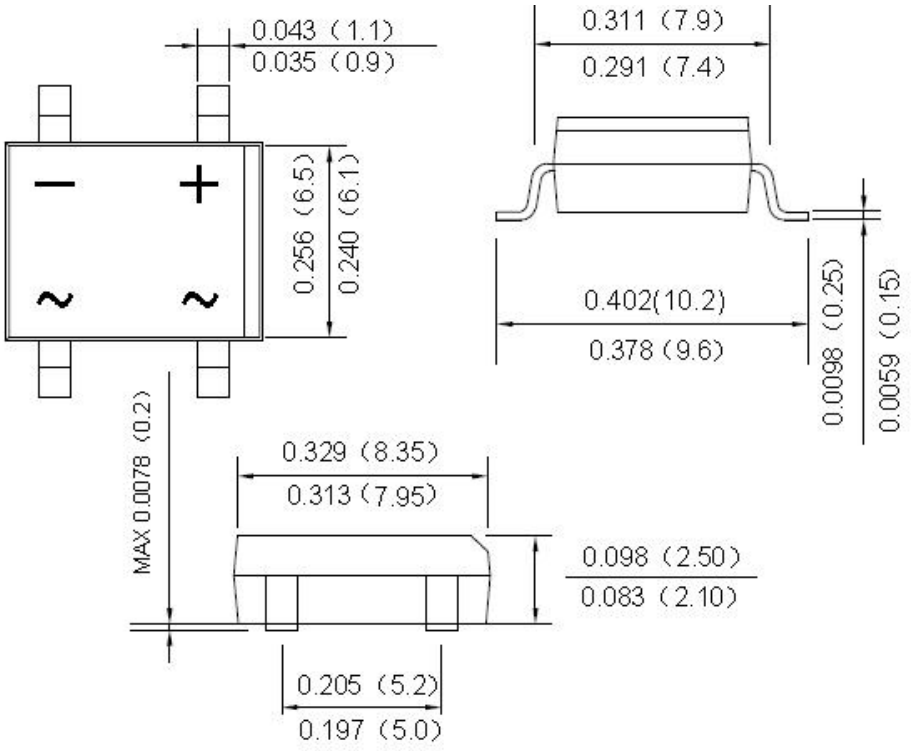


Fig. 4 Typical Reverse Characteristics (per element)



Mechanical Dimensions DB-S(Inches/Millimeters)



DB101S THRU DB107S

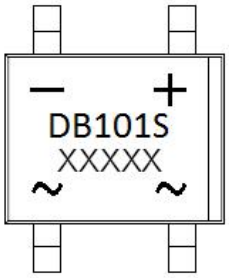
Technical Data
Data Sheet N1459, Rev. B

Ordering Information

Device	Package	Plating	Shipping
DB101S THRU DB107S	DB-S (Pb-Free)	Pure Sn	1500pcs / reel

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

Marking Diagram

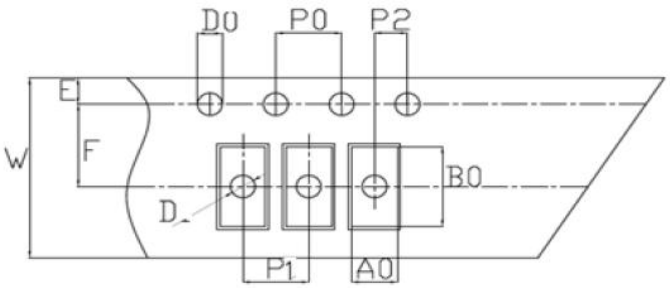


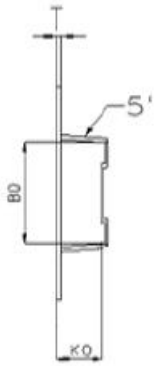
Where XXXXX is YYWWL

DB101S = Type Number
YY = Year
WW = Week
L = Lot Number

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

Carrier Tape Specification DB-S





SYMBOL	Millimeters	
	Min.	Max.
A0	8.65	8.95
B0	10.31	10.51
D0	1.50	1.60
D1	1.40	1.60
P0	3.90	4.10
P1	11.90	12.10
P2	1.90	2.10
E	1.65	1.85
K0	3.21	3.41
F	7.40	7.60
W	15.70	16.30
T	0.30	0.40
10P0	39.80	40.20

Technical Data
Data Sheet N1459, Rev. B

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