



## DB101 THRU DB107

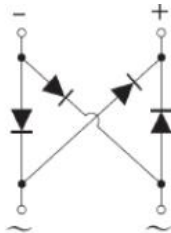
### SINGLE PHASE 1.0AMP GLASS PASSIVATED BRIDGE RECTIFIER



#### Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0
- Terminals finish: 100% Pure Tin
- This is a Pb – Free Device
- “-HF” suffix is for Halogen Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

#### Circuit Diagram



#### Mechanical Data

- Case: DB-M, Molded plastic
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting Position: Any
- Marking: Type Number
- Lead Free: For RoHS / Lead Free Version

#### 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	DB101	DB102	DB103	DB104	DB105	DB106	DB107	Unit
DB101-HF THRU DB107-HF Marking Code		DB101H	DB102H	DB103H	DB104H	DB105H	DB106H	DB107H	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Average Forward Output Current (Note 1) @ T <sub>c</sub> =100°C	I <sub>F(AV)</sub>	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	45							A
I <sup>2</sup> t Rating for Fusing (t < 8.3ms)	I <sup>2</sup> t	8.404							A <sup>2</sup> s

**Electrical Characteristics @  $T_A=25^\circ\text{C}$  unless otherwise specified:**

Characteristic	Symbol	DB101	DB102	DB103	DB104	DB105	DB106	DB107	Unit	
DB101-HF THRU DB107-HF Marking Code		DB101H	DB102H	DB103H	DB104H	DB105H	DB106H	DB107H		
Maximum Forward Voltage Drop per Bridge Element @ $I_F=1.0\text{A}$ , $T_J=25^\circ\text{C}$	$V_F$					1.0				V
Peak Reverse Current @ $T_A=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	$I_R$					5 200				$\mu\text{A}$
Typical Junction Capacitance (Note 2)	$C_J$					25				pF

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

**Thermal-Mechanical Specifications:**

Characteristic	Symbol	DB101	DB102	DB103	DB104	DB105	DB106	DB107	Unit	
DB101-HF THRU DB107-HF Marking Code		DB101H	DB102H	DB103H	DB104H	DB105H	DB106H	DB107H		
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$					40				$^\circ\text{C/W}$
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$					15				$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$					-55+150				$^\circ\text{C}$

Note: 1. Mounted on glass epoxy PC board with 1.3mm<sup>2</sup> 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

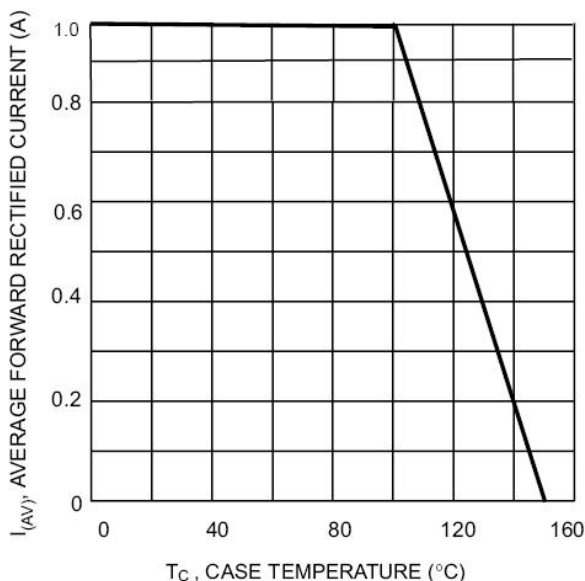


Fig. 2 Typical Forward Characteristics (per leg)

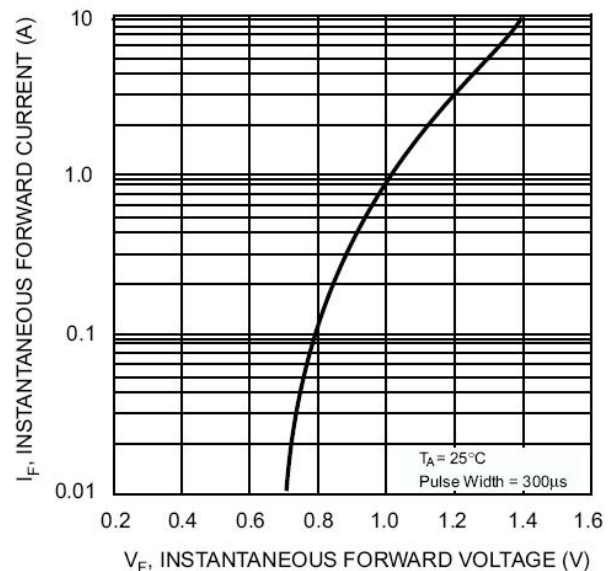


Fig. 3 Maximum Peak Forward Surge Current (per leg)

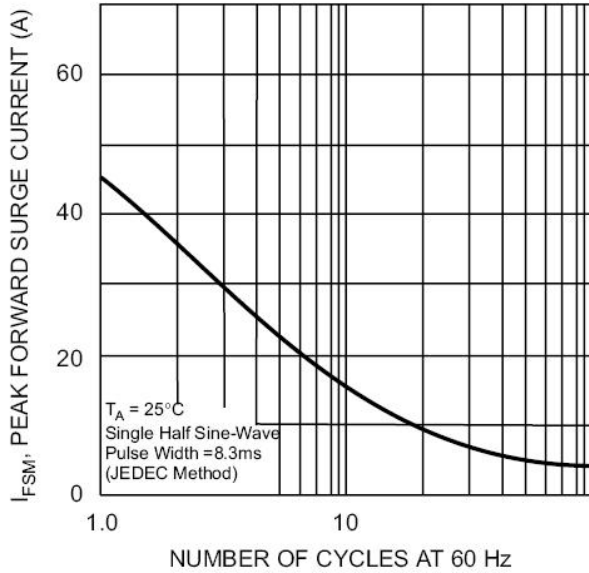
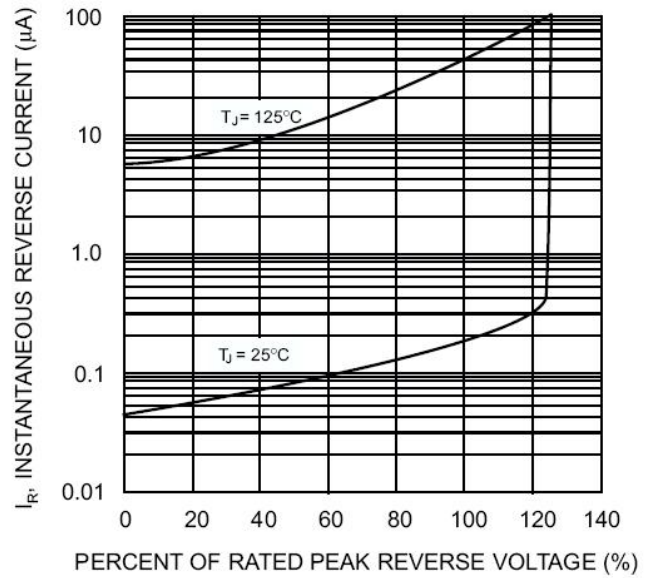
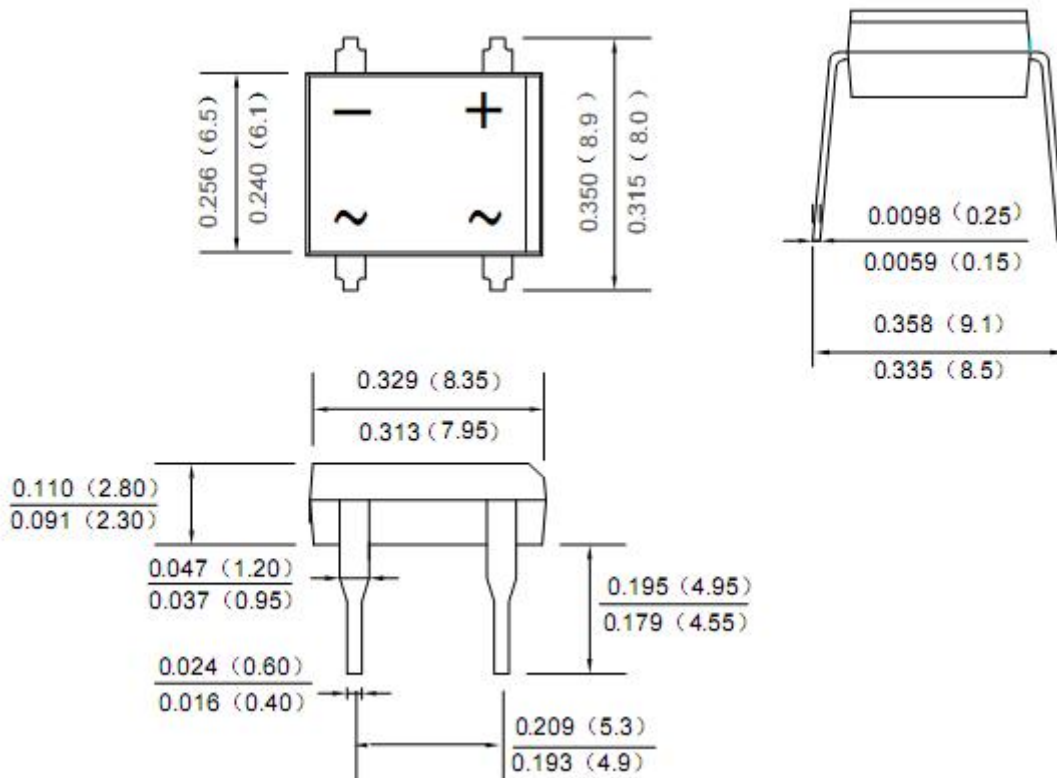


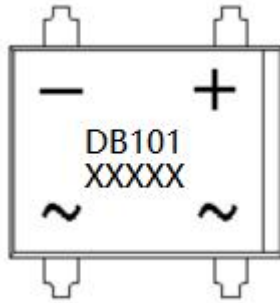
Fig. 4 Typical Reverse Characteristics (per element)



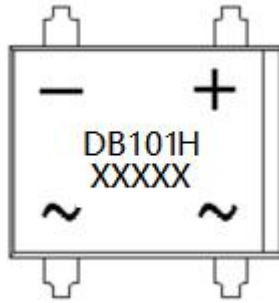
**Mechanical Dimensions DB-M(Inches/Millimeters)**



## Marking Diagram



DB101



DB101-HF

Where XXXXX is YYWWL

DB101 = Type Number  
 DB101H = Marking Code  
 YY = Year  
 WW = Week  
 L = Lot Number

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

## Ordering Information

Device	Package	Plating	Shipping
DB101 THRU DB107	DB-M	Pure Sn	50pcs / tube

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

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