



# THE DATASHEET OF DB151



## DB151 THRU DB157

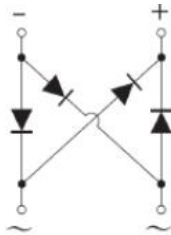
### SINGLE PHASE 1.5AMP GLASS PASSIVATED BRIDGE RECTIFIER



#### Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0
- 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-M, 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 and Electrical Characteristics @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	DB151	DB152	DB153	DB154	DB155	DB156	DB157	Unit
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>	1.5							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	55							A
I <sup>2</sup> t Rating for Fusing (t < 8.3ms)	I <sup>2</sup> t	12.6							A <sup>2</sup> s

**Electrical Characteristics:**

Characteristic	Symbol	DB151	DB152	DB153	DB154	DB155	DB156	DB157	Unit
Maximum Forward Voltage Drop per Bridge Element @ $I_F = 1.5A, T_J = 25^\circ C$	$V_F$	1.0							V
Peak Reverse Current @ $T_A = 25^\circ C$ At Rated DC Blocking Voltage @ $T_A = 125^\circ C$	$I_R$	5 200							$\mu A$
Typical Junction Capacitance (Note 2)	$C_J$	25							pF

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

**Thermal-Mechanical Specifications:**

Characteristic	Symbol	DB151	DB152	DB153	DB154	DB155	DB156	DB157	Unit
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	40							$^\circ C/W$
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	15							$^\circ C/W$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to + 150							$^\circ C$

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

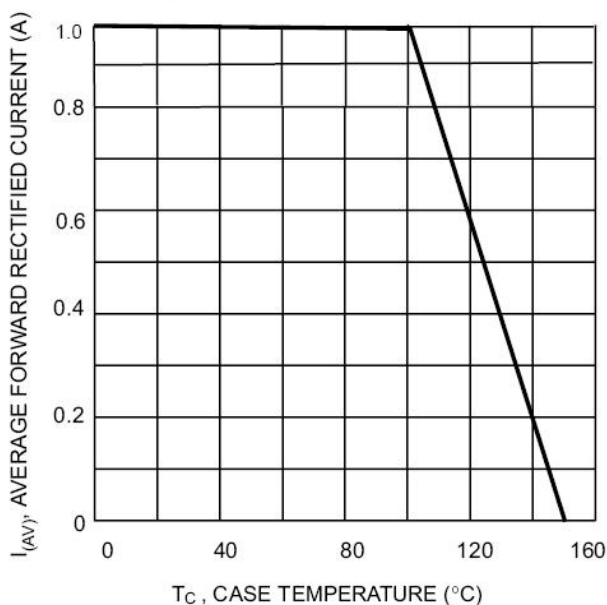


Fig. 2 Typical Forward Characteristics (per leg)

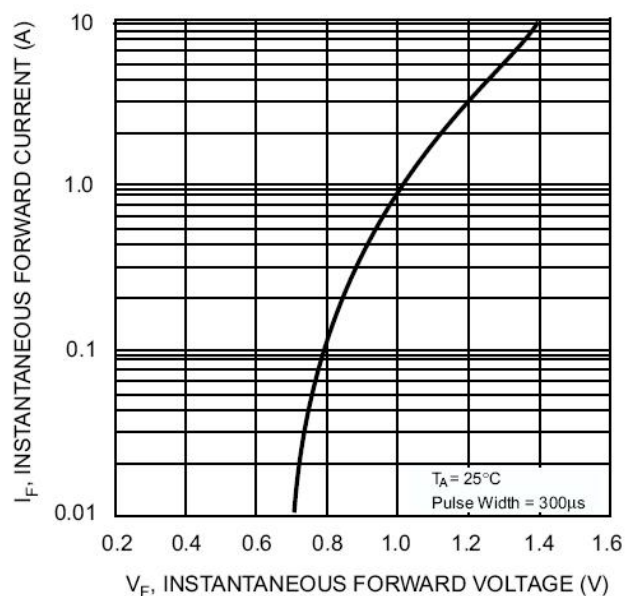


Fig. 3 Maximum Peak Forward Surge Current (per leg)

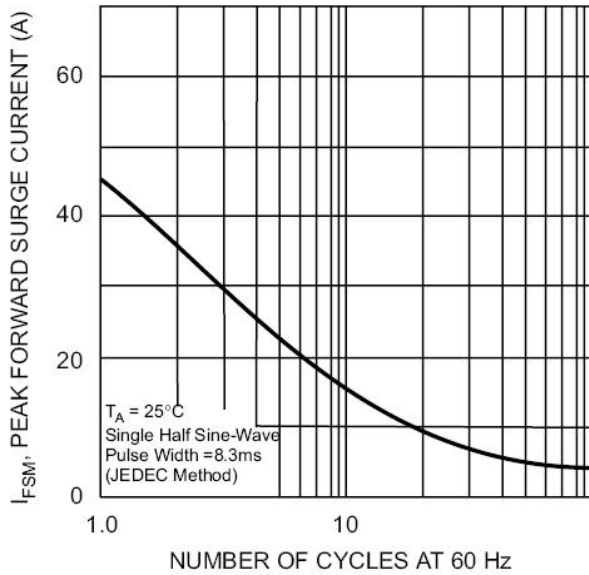
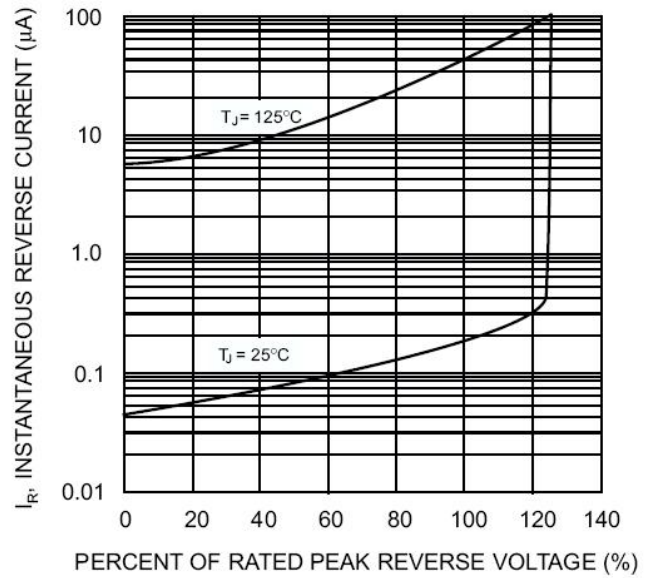
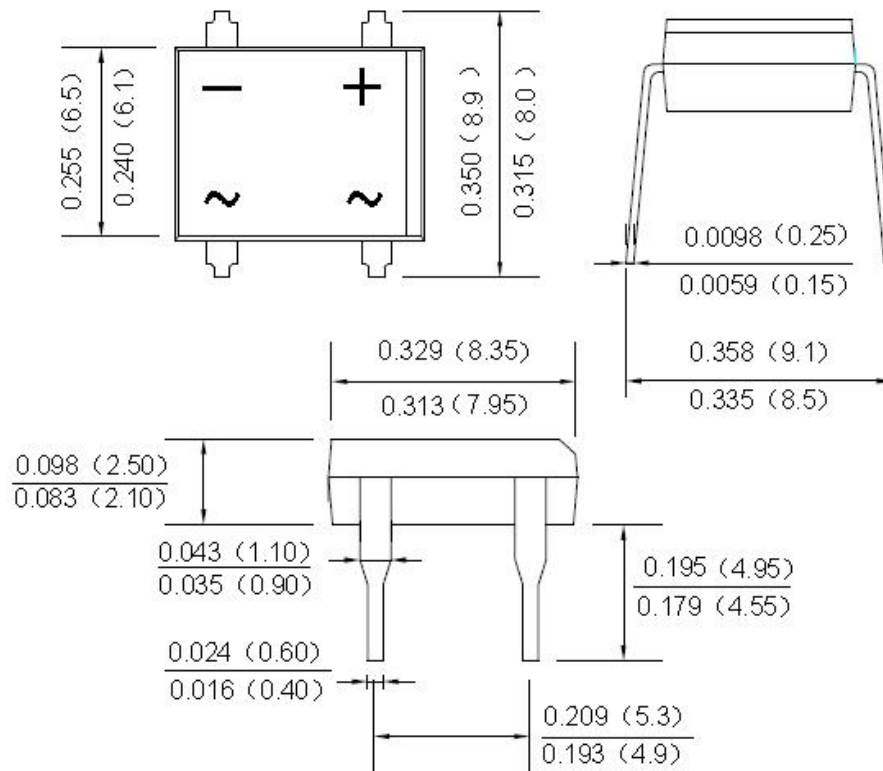


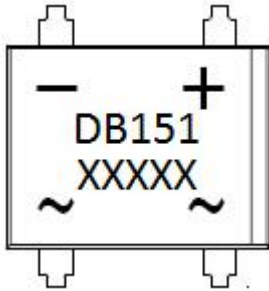
Fig. 4 Typical Reverse Characteristics (per element)



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



## Marking Diagram



Where XXXXX is YYWWL

DB151 = Type Number  
YY = Year  
WW = Week  
L = Lot Number

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

## Ordering Information

Device	Package	Plating	Shipping
DB151 THRU DB157	DB-M(Pb-Free)	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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