

DB151 thru DB157

1.5 A Single-Phase Glass Passivated Bridge Rectifiers



Features

- This series is UL listed under the Recognized Component Index, file number E142814
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Surge overload ratings to 50 amperes
- Ideal for printed circuit board application
- High temperature soldering guaranteed 265 °C /10 seconds at 5 lbs (2.3kg) tension

Mechanical Data

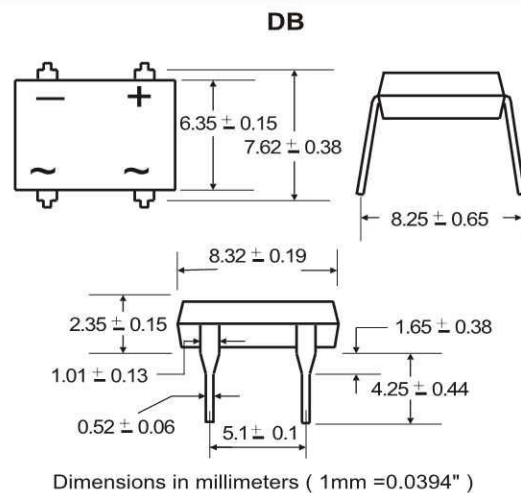
Case: Molded plastic
Terminals: Plated leads solderable per MIL-STD-202, Method 208
Polarity: Marked on body
Mounting Position: Any
Weight: 0.04 ounce, 1.0 grams (approx)

VOLTAGE RANGE

50 to 1000 Volts

CURRENT

1.5 Ampere



Maximum Ratings & Thermal Characteristics

Rating at 25 °C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.
For Capacitive load derate current by 20%.

Parameter	Symbol	DB151	DB152	DB153	DB154	DB155	DB156	DB157	unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS bridge input voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current at TA=40°C	IF(AV)	1.5							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	50							A
Rating for fusing (t<8.3ms)	I ² t	10							A ² sec
Typical thermal resistance per element (1)	ReJA	110							°C / W
Typical junction capacitance per element (2)	Cj	25.0							pF
Operating junction and storage temperature range	TJ, TSTG	-55 to + 150							°C

Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.
For Capacitive load derate by 20 %.

Parameter	Symbol	DB151	DB152	DB153	DB154	DB155	DB156	DB157	Unit
Maximum instantaneous forward voltage drop per leg at 1.5A	VF	1.1							V
Maximum DC reverse current at rated TA =25°C DC blocking voltage per element TA =125°C	IR	10 500							μA

Notes: (1)Thermal resistance from Junction to Ambient on P.C.board mounting.
(2)Measured at 2.0MHz and applied reverse voltage of 4.0 volts.

Rating and Characteristic Curves ($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

DB101 thru DB107

Fig. 1 Derating Curve for Output Rectified Current

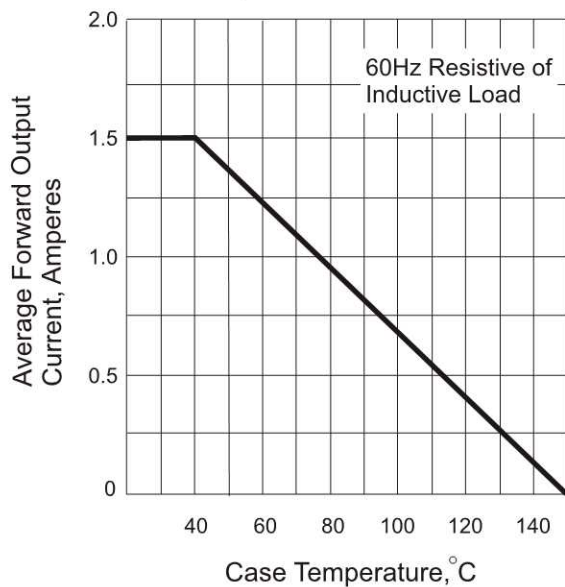


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

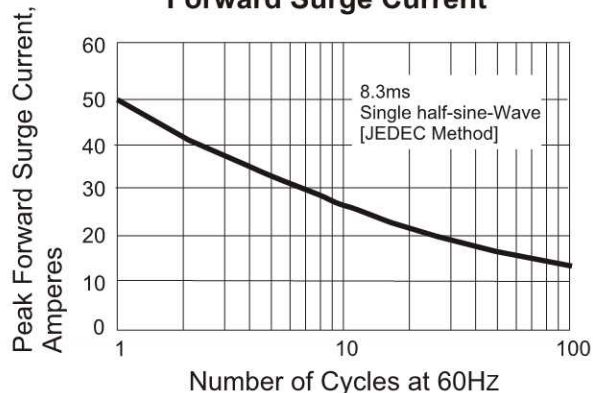


Fig. 3 Typical Instantaneous Forward Characteristics

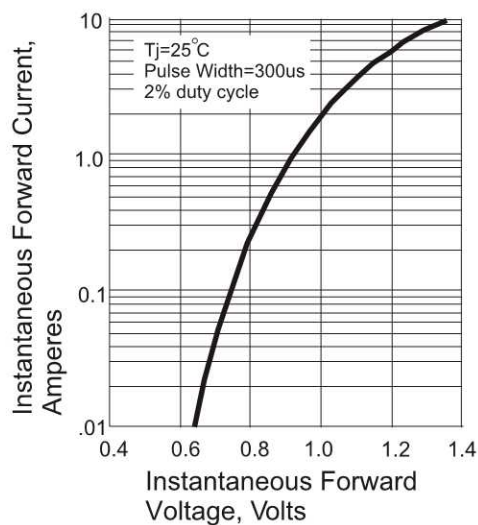


Fig. 4 Typical Reverse Characteristics

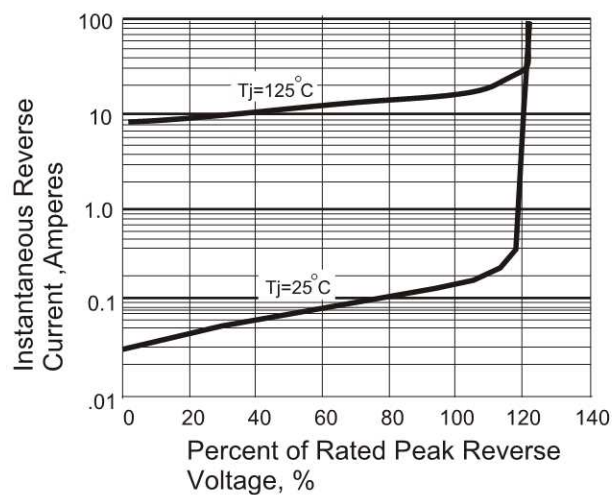


Fig. 5 Typical Junction Capacitance

