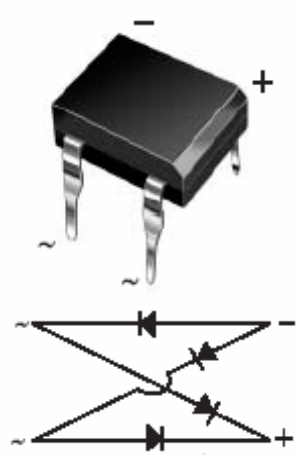
Single-Phase Bridge Rectifier in DFM



Features

- Ideal for automated placement
- Applicable for automative insertion
- High surge current capability
- Solder Dip 260°C, 10 seconds

Mechanical Data

- Case:DFM
- Epoxy meets UL-94V-0 Flammability rating
- Terminals: Matte tin plated ldads, solderable per J-STD-002B and JESD22-B102D
- Polarity: As markde on body

Typical Applications

General purpose use in AC-to-DC bridge full wave rectifications for SMPS, Lighting Ballasters, Adapters, Battery Chargers, Home Appliances, Office Equipment and Telecommunication applications.

Maximum Ratings & Electrical Characteristics

(T_A=25°C unless otherwise noted)

Parameter	Symbol	DB151	DB152	DB153	DB154	DB155	DB156	DB157	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Output Rectified Current at T_A=40°C	$I_{F(AV)}$	1.5							A
Peak Forward Surge Current Single Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50							A
Rating for Fusig (t<8.3ms)	I^2t	10							A^2sec
Maximum Instantaneous Forward Voltage Drop per Leg at 1.5A	V_F	1.10							V
Maximum DC Reverse Current at T_A=25°C Rated DC Blocking Voltage per Leg T_A=125°C	I_R	5 500							μA
Typical Junction Capacitance per Element at 4.0V,1MHz	Cj	16							pF
Typical Thermal Resistance per Leg (Note 1)	$R_{\theta JA}$ $R_{\theta JL}$	40 15							°C/W
Operating Junction Temperature Range	T_J	-55 to +150							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

Notes: 1. Device mounted P.C.B with 0.47x0.47"(12mmx12mm) Copper Pads.

2. JEDEC registered values

Typical Characteristics (T_{amb} = 25 °C unless otherwise specified)

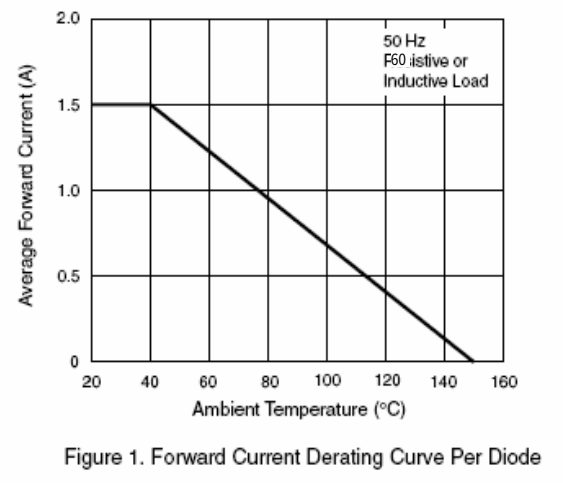


Figure 1. Forward Current Derating Curve Per Diode

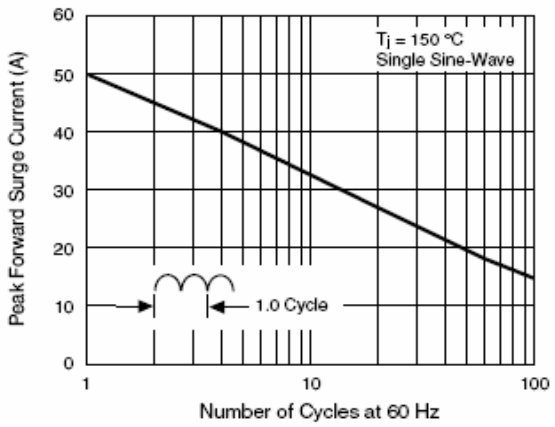


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Diode

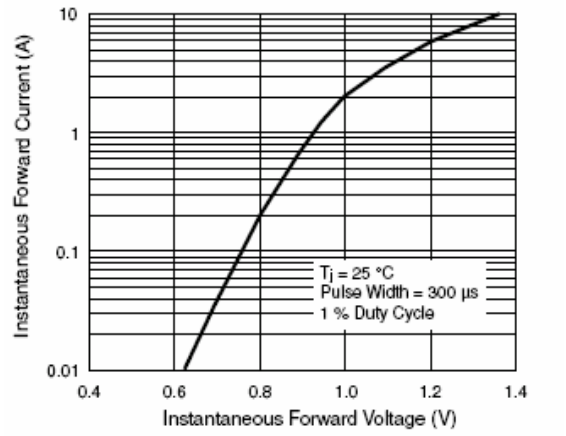


Figure 3. Typical Forward Characteristics Per Diode

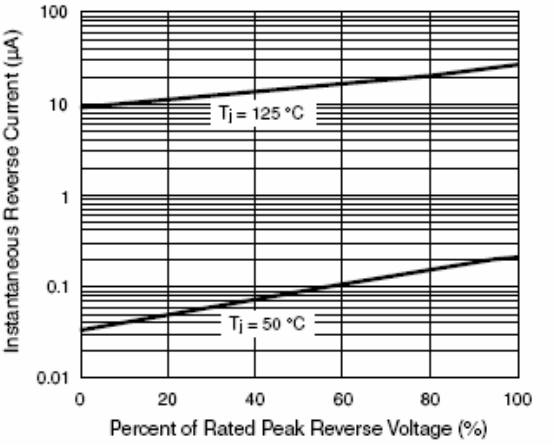


Figure 4. Typical Reverse Leakage Characteristics Per Diode

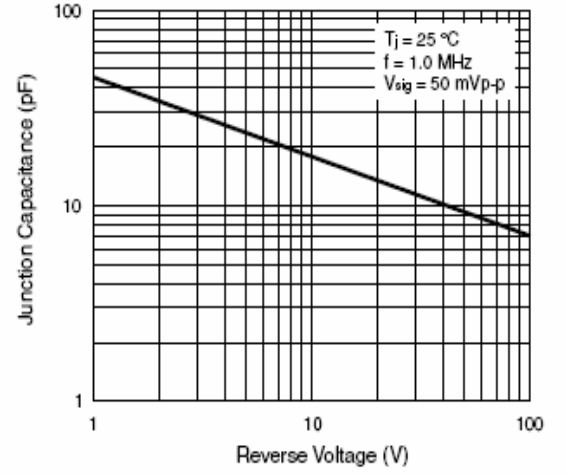


Figure 5. Typical Junction Capacitance Per Diode

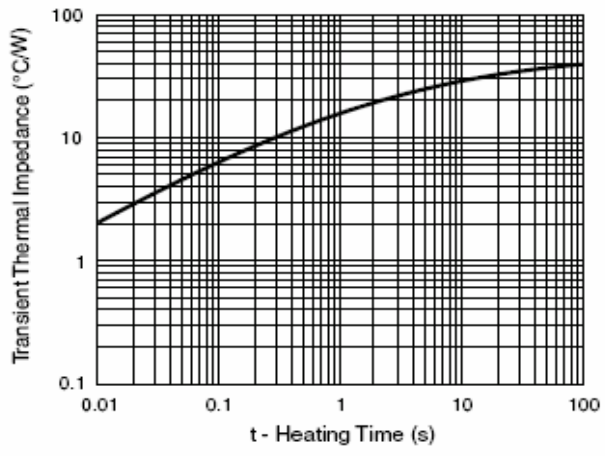
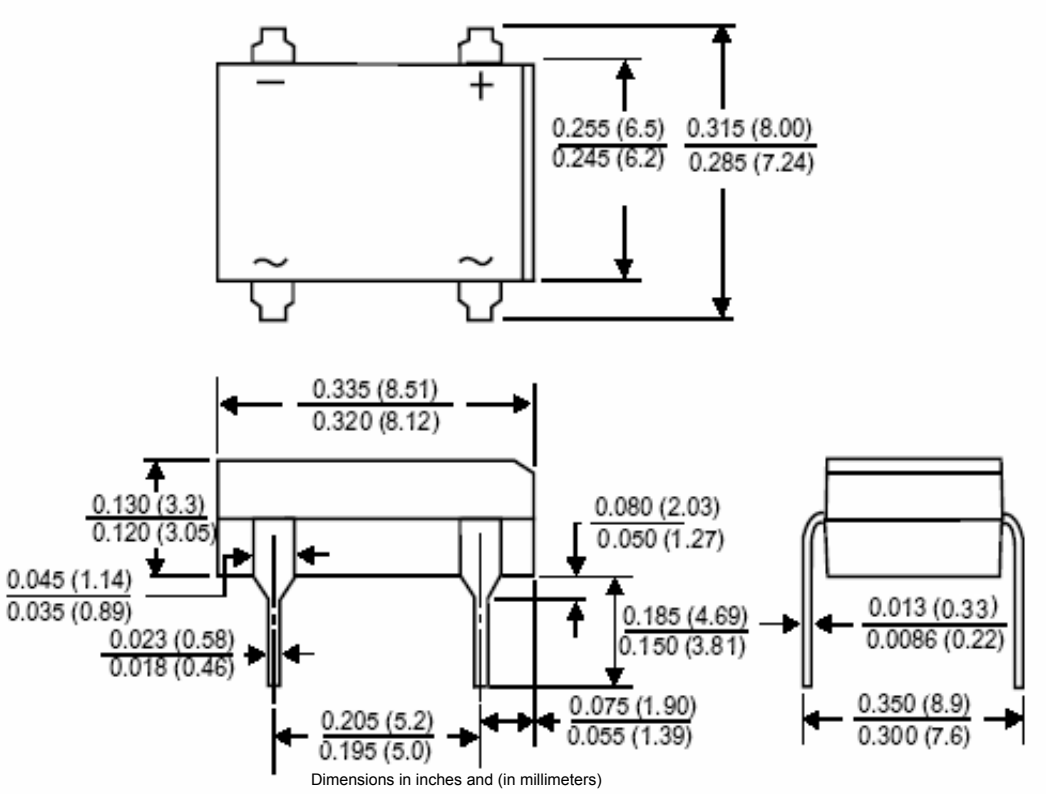


Figure 6. Typical Transient Thermal Impedance

Package Dimensions



Dimensions in inches and (in millimeters)

Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
DB151 Thru DB157	DFM	Tube	50pcs	EIA STD RS-481

Revision history

Date	Revision	Changes
23-May-2020	1.0	Initial release

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