

DF15005 thru DF1510

Miniature Glass Passivated Single-Phase Bridge Rectifier Reverse
 Voltage 50 and 1000V Forward Current 1.5A

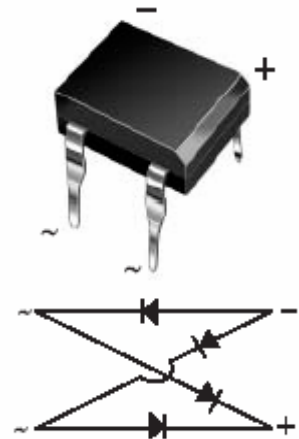
Features

- 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 leads, solderable per J-STD-002B and JESD22-B102D
- Polarity: As markde on body

Package: DFM



Schematic Diagram

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 specified.

Parameter	Symbol	DF15005	DF1501	DF1502	DF1504	DF1506	DF1508	DF1510	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	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 ² t	10							A ² sec
Maximum Instantaneous Forward Voltage Drop per Leg at 1.5A	V _F	1.10							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Leg	I _R	5 500							μA
Typical Junction Capacitance per Element at 4.0V, 1MHz	C _j	16							pF
Typical Thermal Resistance per Leg (Note 1)	R _{θJA} R _{θJL}	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

Ratings and Characteristics Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

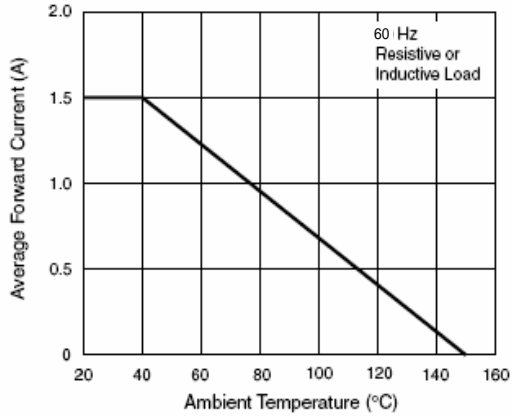


Figure 1. Forward Current Derating Curve Per Diode

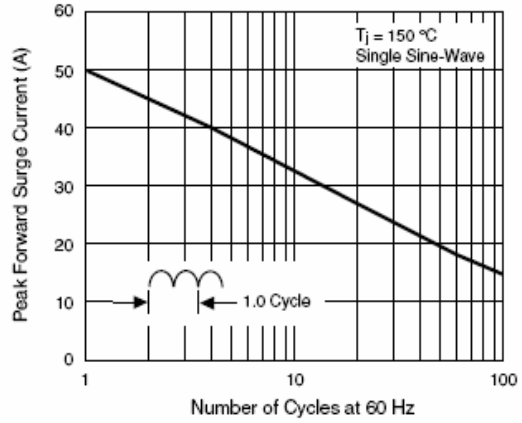


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Diode

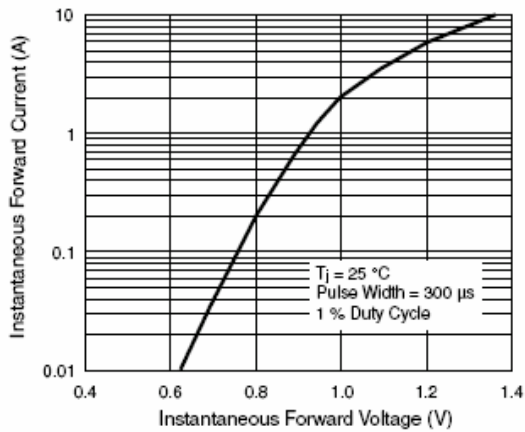


Figure 3. Typical Forward Characteristics Per Diode

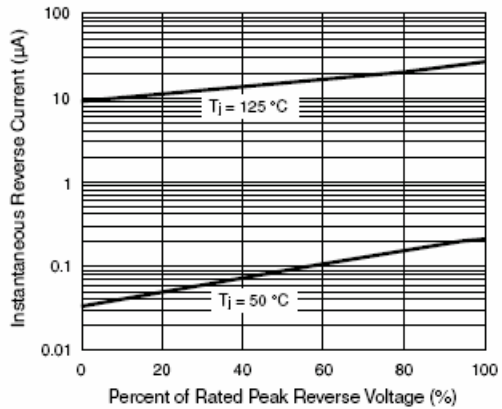


Figure 4. Typical Reverse Leakage Characteristics Per Diode

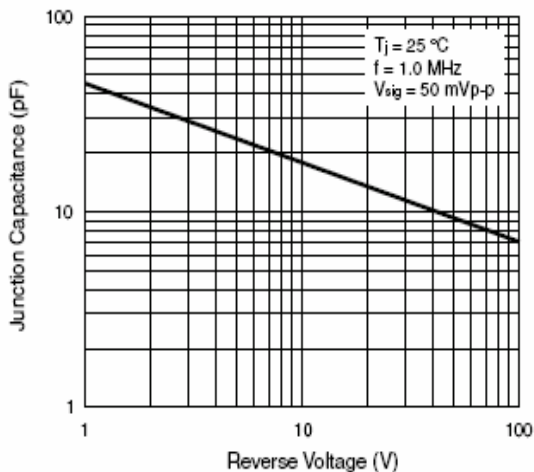


Figure 5. Typical Junction Capacitance Per Diode

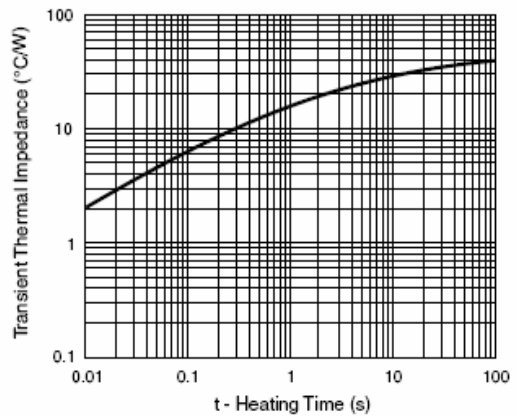
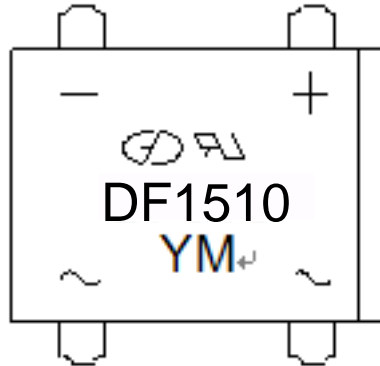


Figure 6. Typical Transient Thermal Impedance

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Marking



DATE CODE

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Code	9	A	B	C	D	E	F	G	H	J	K	0
Month	1	2	3	4	5	6	7	8	9	10	11	12
Code	1	2	3	4	5	6	7	8	9	O	N	D

Package Outline Dimensions

