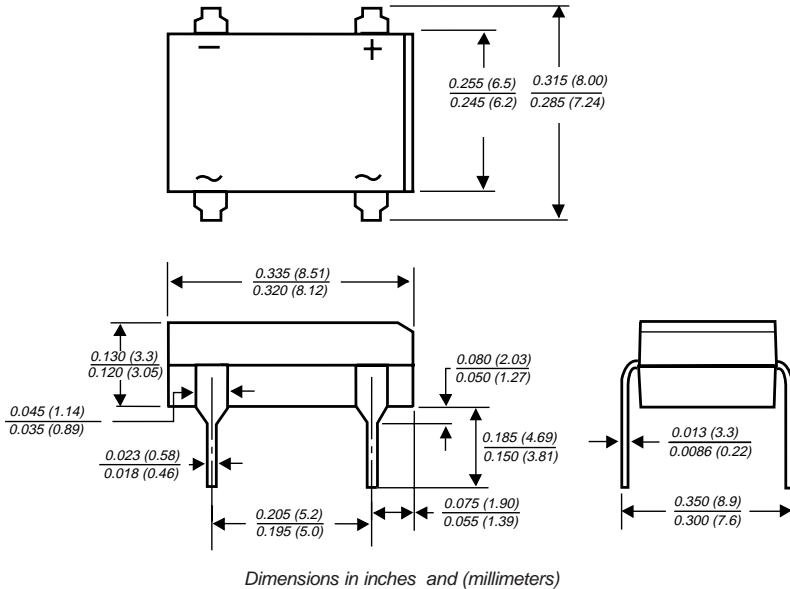




## Miniature Glass Passivated Single-Phase Bridge Rectifier

Reverse Voltage 50 and 1000V  
Forward Current 1.0A

Case Style DFM



### Features

- This series is UL listed under the Recognized Component Index, file number E54214
- Plastic package used has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junction
- High surge overload rating of 30 Amperes peak
- Ideal for printed circuit boards
- High temperature soldering guaranteed: 260°C/10 seconds, at 5 lbs. (2.3kg) tension

### Mechanical Data

**Case:** Molded plastic body over passivated junctions  
**Terminals:** Plated leads solderable per MIL-STD-750, Method 2026  
**Polarity:** Polarity symbols as marked on body  
**Mounting Position:** Any  
**Weight:** 0.014 oz., 0.4 g  
**Packaging codes/options:** 45/50 ea.per Bulk Tube

## Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	DF 005MA	DF 01MA	DF 02MA	DF 04MA	DF 06MA	DF 08MA	DF 10MA	Unit
Device Marking Code		DFA 005	DFA 01	DFA 02	DFA 04	DFA 06	DFA 08	DFA 10	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum average forward output rectified current at T <sub>A</sub> = 40°C	I <sub>F(AV)</sub>	1.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	30							A
Rating for fusing (t < 8.3ms)	I <sup>2</sup> t	4.5							A <sup>2</sup> sec
Typical thermal resistance per leg (Note 1)	R <sub>θJA</sub> R <sub>θJL</sub>	40 15							°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150							°C

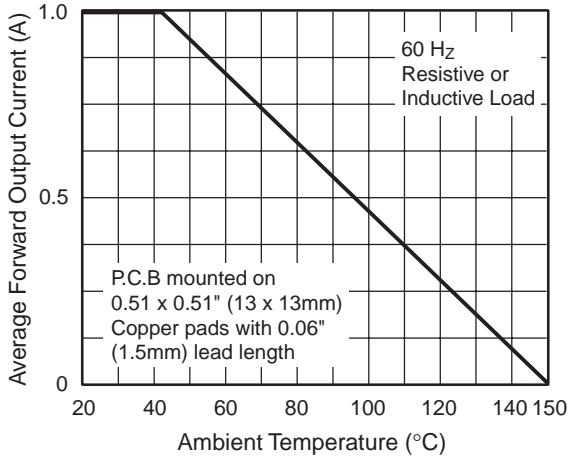
## Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Maximum instantaneous forward voltage drop per leg at 1.0A	V <sub>F</sub>	1.1	V
Maximum reverse current at rated DC blocking voltage per leg	I <sub>R</sub>	5.0 500	μA
Typical junction capacitance per leg at 4.0V, 1MHz	C <sub>J</sub>	25	pF

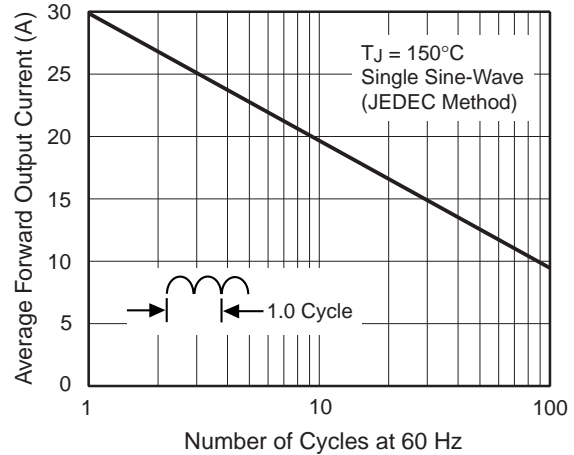
**Note:** (1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.5 x 0.5" (13 x 13mm) copper pads

## Ratings and Characteristic Curves (T<sub>A</sub> = 25°C unless otherwise noted)

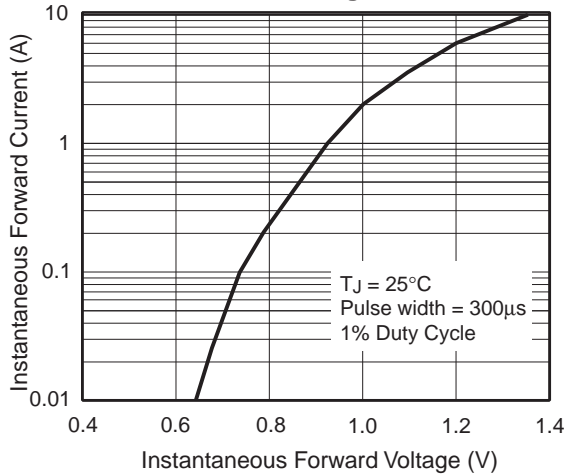
**Fig. 1 - Derating Curve Output Rectified Current**



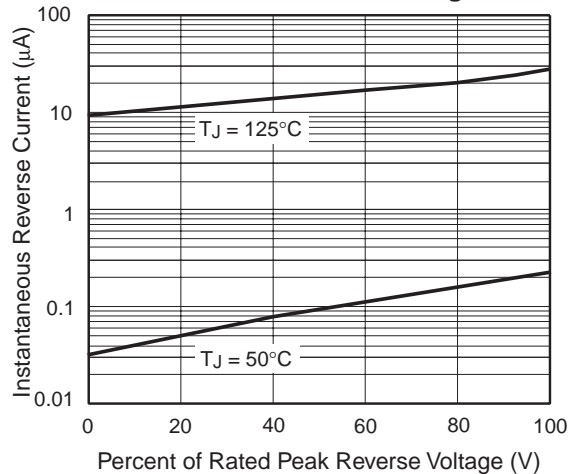
**Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg**



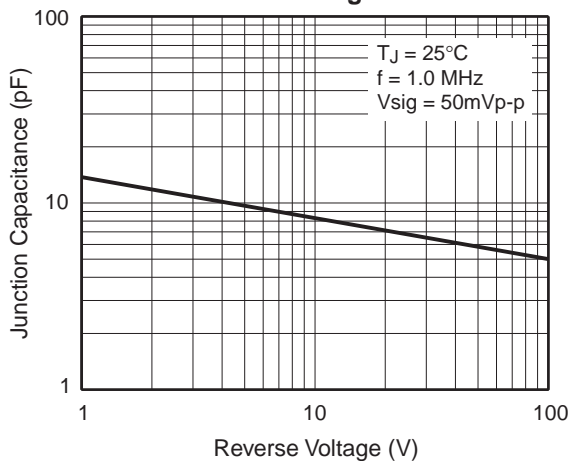
**Fig. 3 - Typical Forward Characteristics Per Leg**



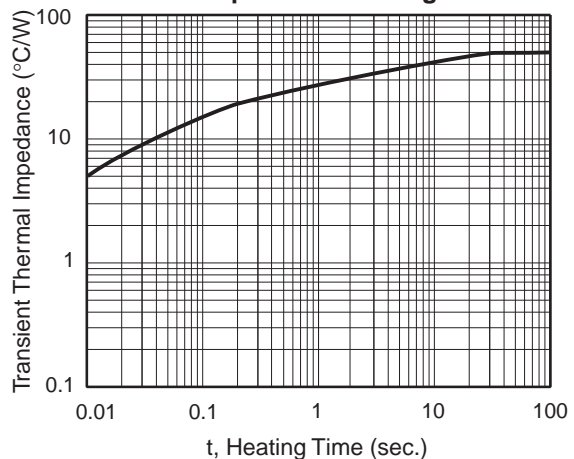
**Fig. 4 - Typical Reverse Leakage Characteristics Per Leg**



**Fig. 5 - Typical Junction Capacitance Per Leg**



**Fig. 6 - Typical Transient Thermal Impedance Per Leg**





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