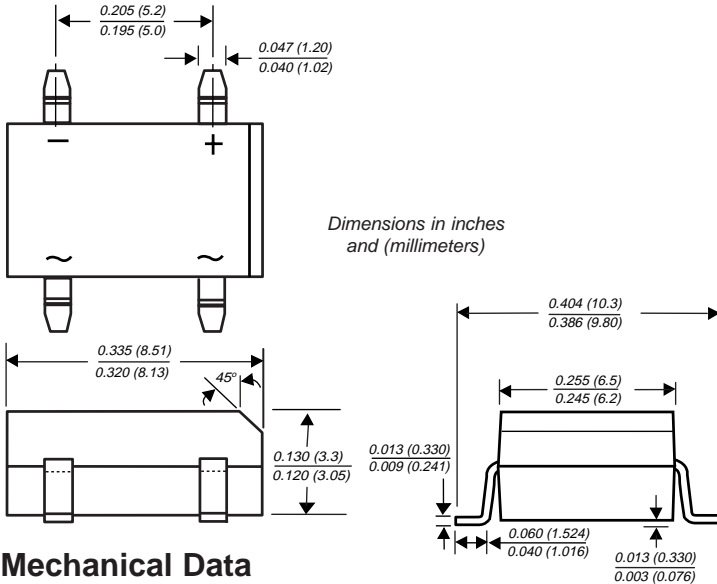




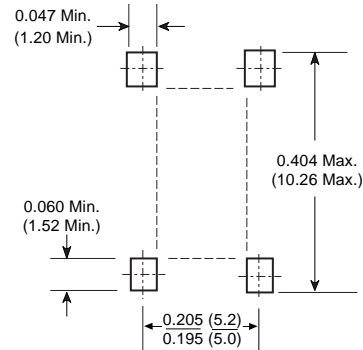
## Miniature Glass Passivated Single-Phase Surface Mount Bridge Rectifier

Reverse Voltage 50 to 1000V  
Forward Current 1.0A

### Case Style DFS



### Mounting Pad Layout



### Mechanical Data

**Case:** Molded plastic body over passivated junctions

**Terminals:** Plated leads solderable per MIL-STD-750, Method 2026

**Polarity:** Polarity symbols marked on body

**Mounting Position:** Any

**Weight:** 0.014 oz., 0.4 g

**Packaging codes/options:**

27/1.5K per 13" Reel (16mm Tape)

45/50 EA. per Tube-Bulk

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- This series is UL listed under Recognized Component Index, file number E54214
- Glass passivated chip junctions
- 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

### Maximum Ratings and Thermal Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)

Parameter	Symbol	DF005SA	DF01SA	DF02SA	DF04SA	DF06SA	DF08SA	DF10SA	Unit
Device marking code		DFA 005S	DFA 01S	DFA 02S	DFA 04S	DFA 06S	DFA 08S	DFA 10S	
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 <sup>(2)</sup>	I <sub>F(AV)</sub>	1.0							A
Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method) T <sub>J</sub> = 150°C	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 <sup>(2)</sup>	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 (T<sub>A</sub> = 25°C unless otherwise noted)

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

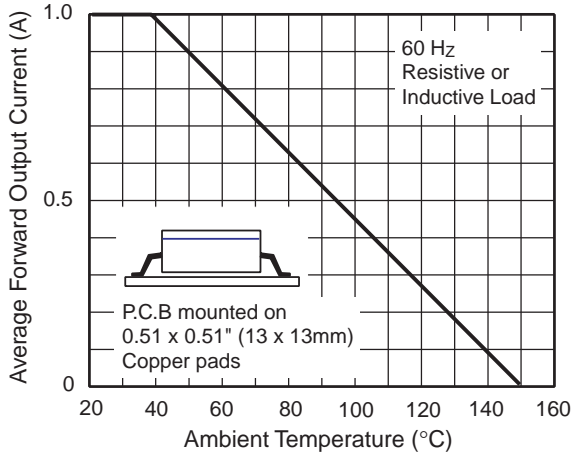
**Notes:** (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

(2) Units mounted on P.C.B. with 0.51 x 0.51" (13 x 13mm) copper pads

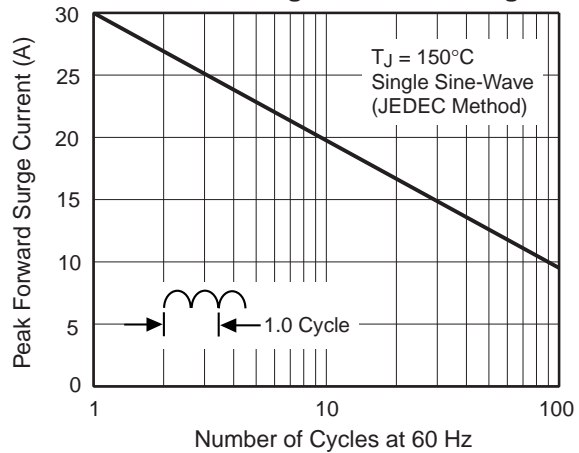
## Ratings and

## Characteristic Curves ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

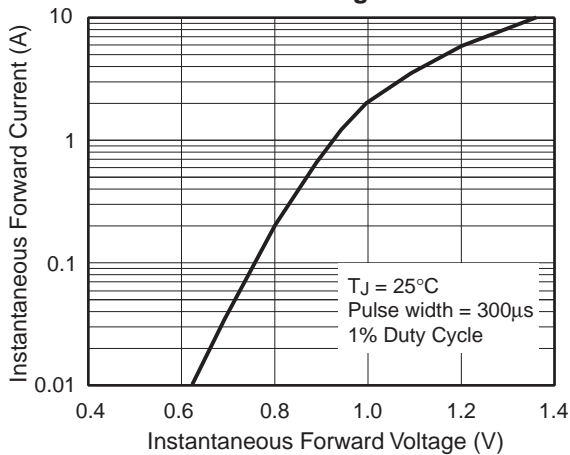
**Fig. 1 - Derating Curve Output Rectified Current**



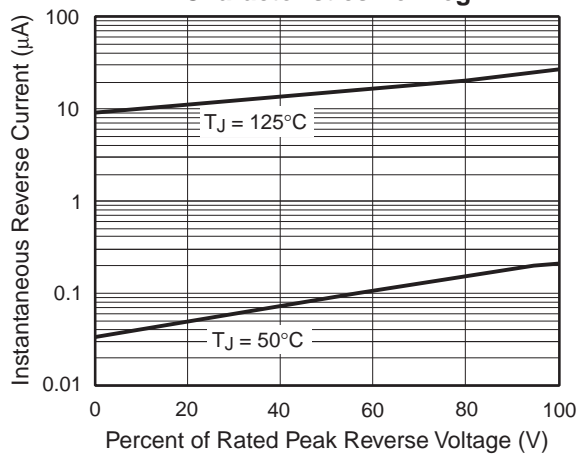
**Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg**



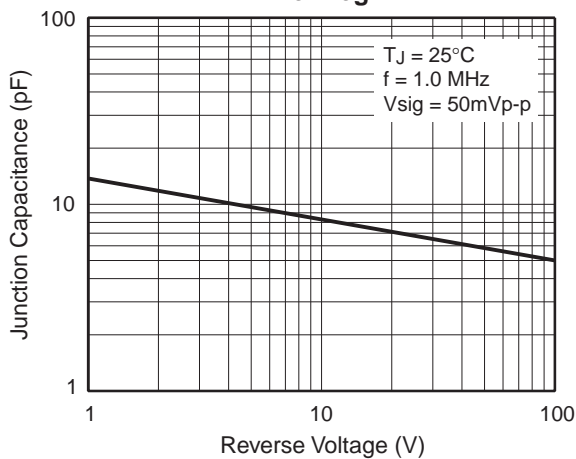
**Fig. 3 - Typical Forward Characteristics Per Leg**



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



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



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

