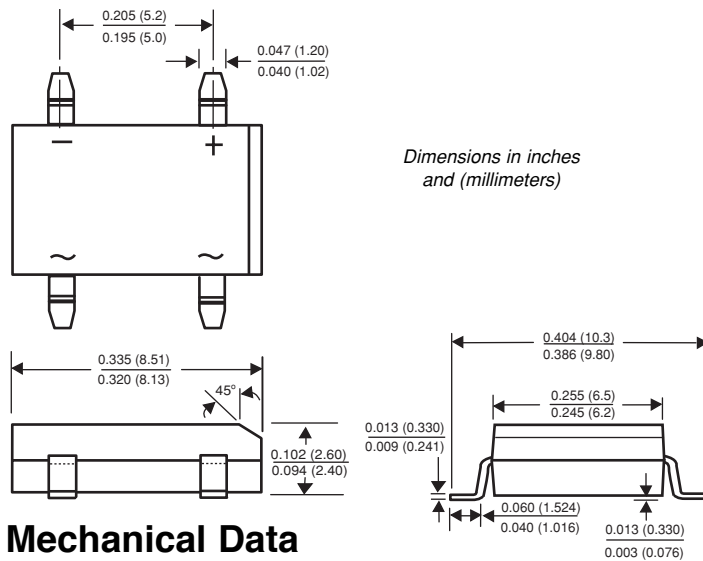




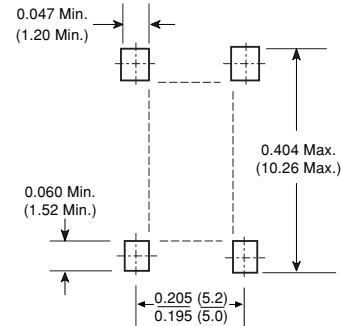
## Low Profile Miniature Glass Passivated Single-Phase Surface Mount Bridge Rectifiers

### Case Style Low Profile DFS

Reverse Voltage 50 to 1400V  
Forward Current 1.5A



### Mounting Pad Layout



### Mechanical Data

- Case:** Molded plastic body over passivated junctions
- Terminals:** Plated leads solderable per MIL-STD-750, Method 2026
- High temperature soldering guaranteed:  
260°C/10 seconds at 5 lbs. (2.3kg) tension
- 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 50 Amperes peak
- Ideal for printed circuit boards

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

Parameter	Symbol	DFL15005S	DFL1501S	DFL1502S	DFL1504S	DFL1506S	DFL1508S	DFL1510S	DFL1514S	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	1400	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	980	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	1400	V
Maximum average forward output rectified current at T <sub>A</sub> = 40°C <sup>(2)</sup>	I <sub>F(AV)</sub>	1.5								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>	50								A
Rating for fusing (t < 8.3ms)	I <sup>2</sup> t	10								A <sup>2</sup> sec
Typical thermal resistance per leg <sup>(2)</sup>	R <sub>θJA</sub>	40								°C/W
	R <sub>θJL</sub>	15								
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)

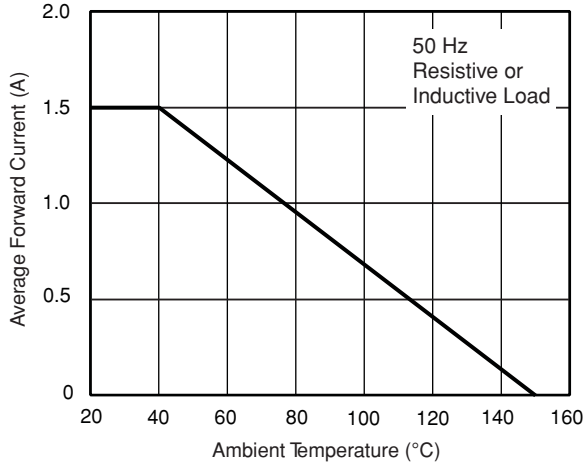
Max. instantaneous forward voltage drop per leg at 1.5A	V <sub>F</sub>	1.1	V
Maximum DC reverse current at rated DC blocking voltage per leg	T <sub>A</sub> = 25°C	5.0	μA
	T <sub>A</sub> = 125°C	500	
Typical junction capacitance per leg <sup>(1)</sup>	C <sub>J</sub>	16	pF

**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

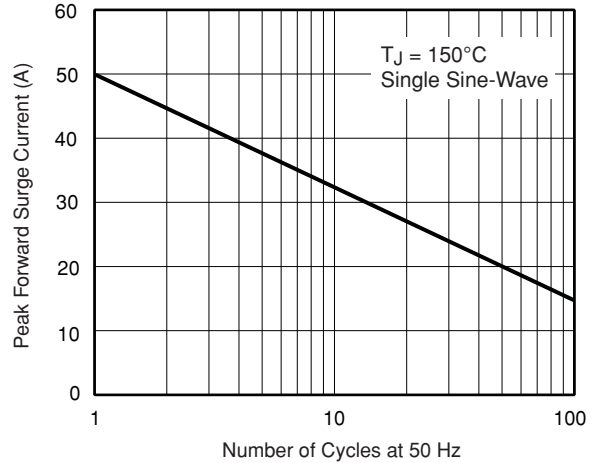
Vishay Semiconductors  
formerly General Semiconductor

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

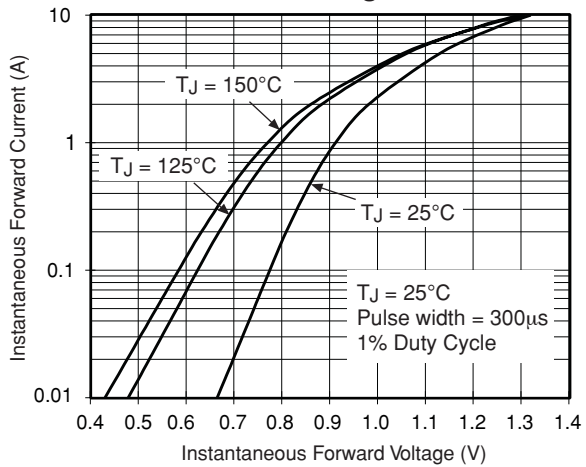
**Fig. 1 - Forward Current Derating Curve Per Leg**



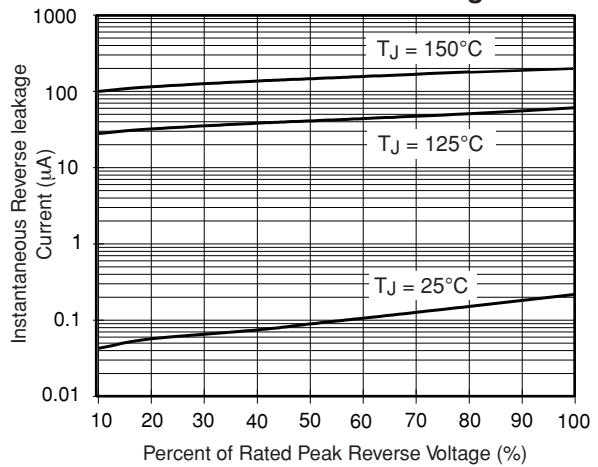
**Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current**



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



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



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

