New Product

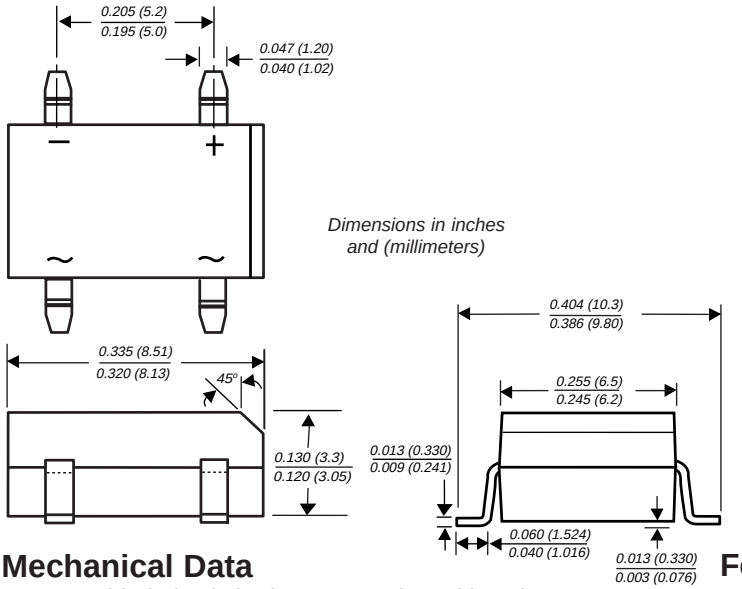
Vishay Semiconductors
formerly General Semiconductor

Miniature Glass Passivated Single-Phase Surface Mount Bridge Rectifier



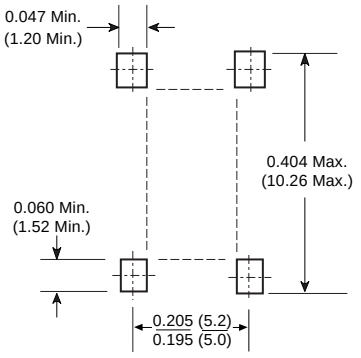
Reverse Voltage 50 to 1000V
Forward Current 1.0A

Case Style DFS



Dimensions in inches and (millimeters)

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_A = 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_{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 (2)	$I_{F(AV)}$	1.0							A
Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method) T_J = 150°C	I_{FSM}	30							A
Rating for fusing (t < 8.3ms)	I^2t	4.5							A^2sec
Typical thermal resistance per leg (2)	$R_{\theta JA}$ $R_{\theta JL}$	40 15							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	–55 to +150							°C

Electrical Characteristics (T_A = 25°C unless otherwise noted)

Maximum instantaneous forward voltage drop per leg at 1.0A	V_F	1.1	V
Maximum DC reverse current at rated DC blocking voltage per leg T_A = 25°C T_A = 125°C	I_R	5.0 500	µA
Typical junction capacitance per leg(1)	C_J	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°C unless otherwise noted)

Fig. 1 - Derating Curve Output Rectified Current

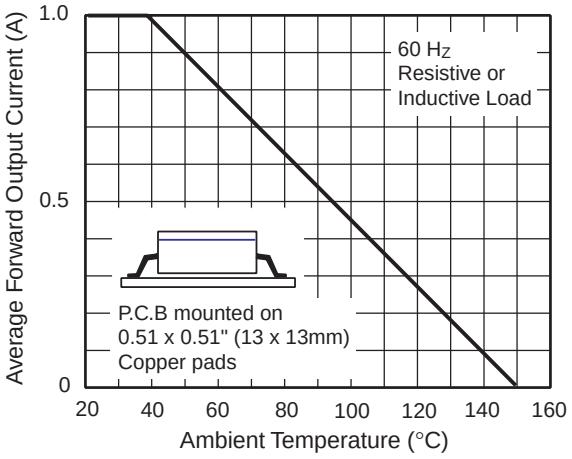


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

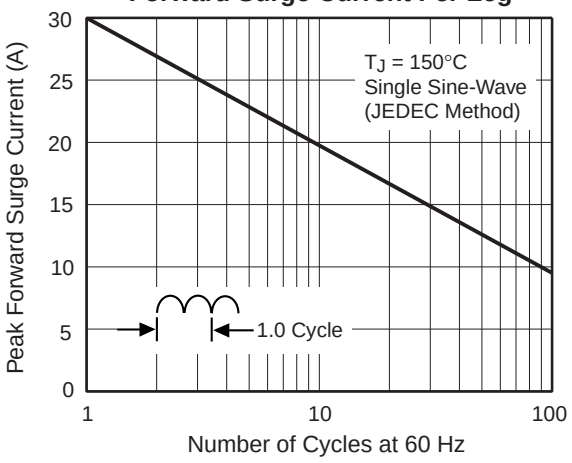


Fig. 3 - Typical Forward Characteristics Per Leg

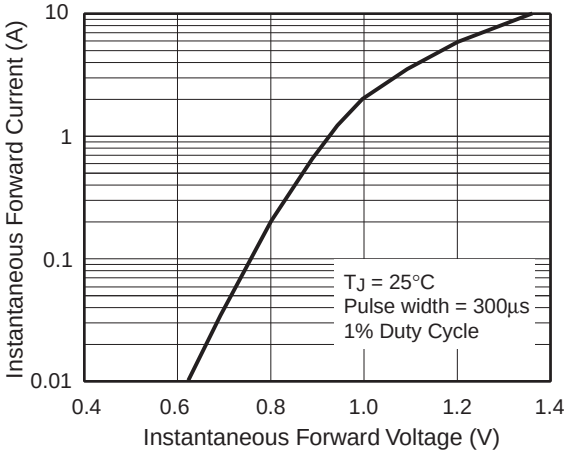


Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

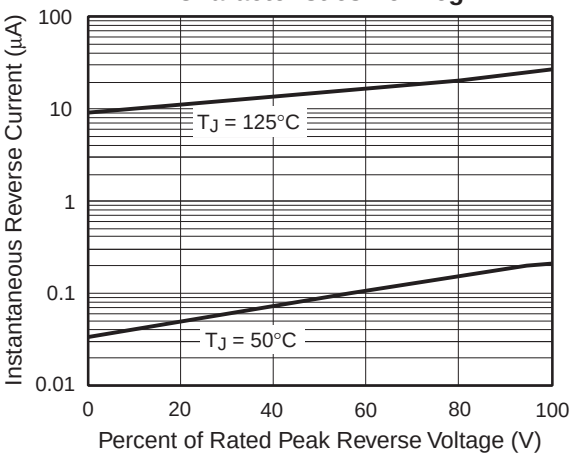


Fig. 5 - Typical Junction Capacitance Per Leg

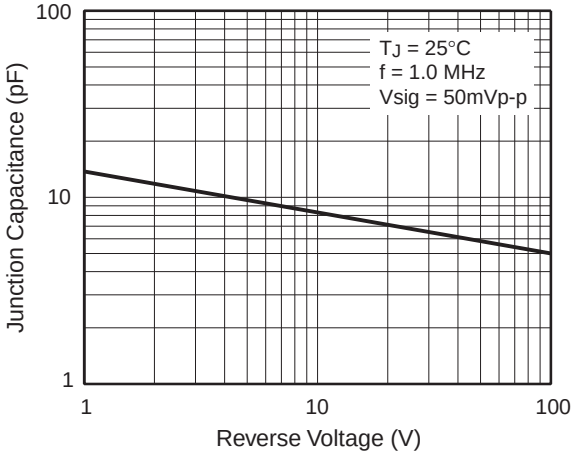


Fig. 6 - Typical Transient Thermal Impedance

