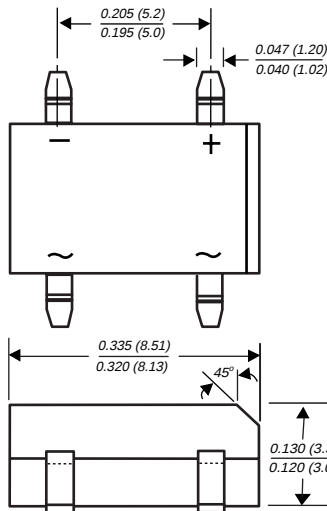




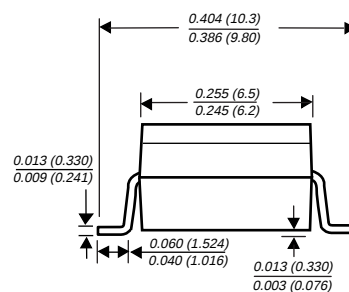
Miniature Glass Passivated Single-Phase Surface Mount Bridge Rectifiers

Case Style DFS

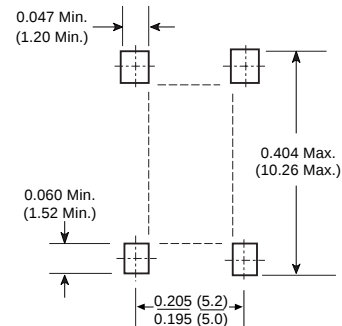
Reverse Voltage 50 to 1000V
Forward Current 1.5A



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

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_A = 25°C unless otherwise noted)

Parameter	Symbol	DF15005S	DF1501S	DF1502S	DF1504S	DF1506S	DF1508S	DF1510S	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°C ⁽²⁾	I _{F(AV)}	1.5							A
Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method) T _J = 150°C	I _{FSM}	50							A
Rating for fusing (t < 8.3ms)	I ² t	10							A ² sec
Typical thermal resistance per leg ⁽²⁾	R _{θJA} R _{θJL}	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)

Max. instantaneous forward voltage drop per leg at 1.5A	V _F	1.1	V
Maximum DC reverse current T _A = 25°C at rated DC blocking voltage per leg 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 ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 - Derating Curve Output Rectified Current

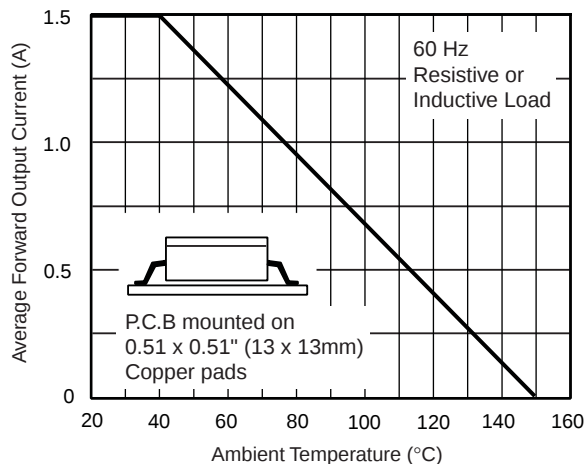


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

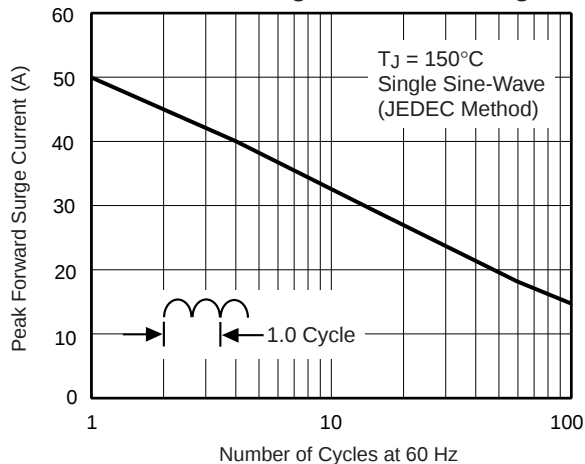


Fig. 3 - Typical Forward Characteristics Per Leg

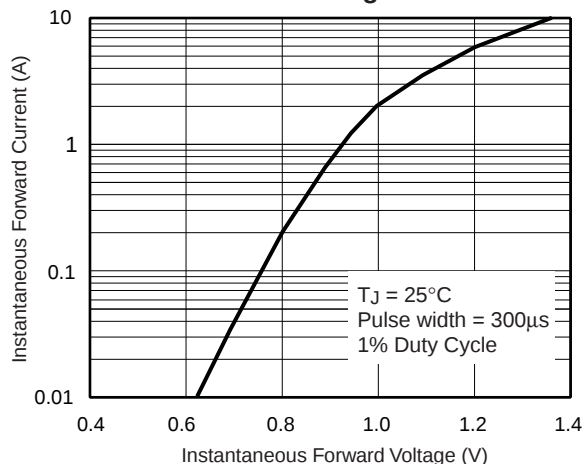


Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

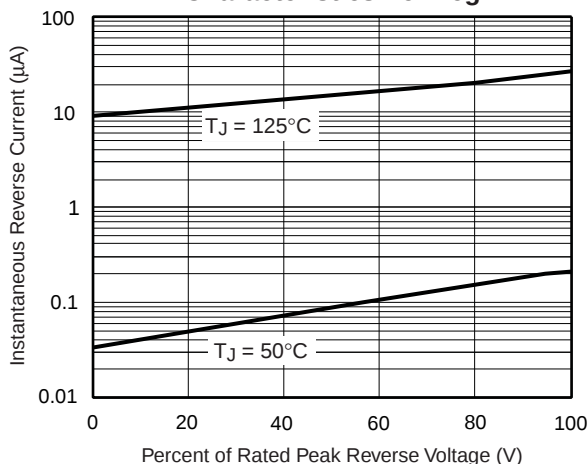


Fig. 5 - Typical Junction Capacitance Per Leg

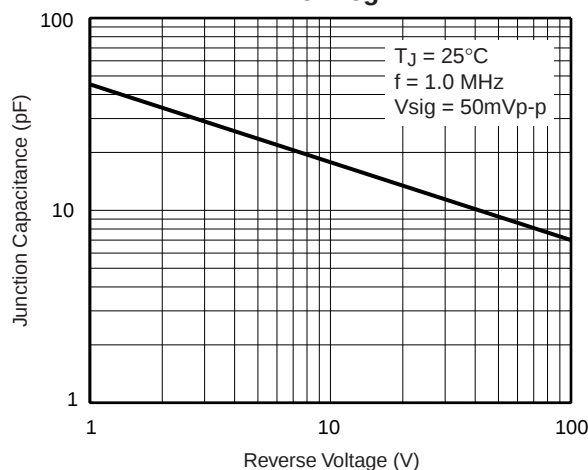


Fig. 6 - Typical Transient Thermal Impedance

