DF15005S thru DF1510S

Miniature Glass Passivated Single-Phase Surface Mount Bridge Rectifiers
Voltage Range 50 to 1000 Volts Forward Current 1.5 Amperes

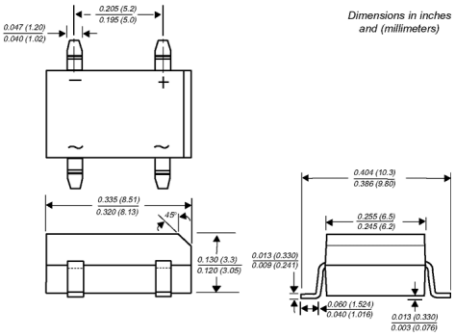
Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junctions
- High surge overload rating of 50 Amperes peak
- Ideal for printed circuit boards

DFS

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: 0.014oz., 0.38g



Maximum Ratings and Electrical Characteristics

(T_A=25°C unless otherwise noted)

Parameter	Symbols	DF 15005S	DF 1501S	DF 1502S	DF 1504S	DF 1506S	DF 1508S	DF 1510S	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward output rectified current at T_A=40°C (2)	$I_{F(AV)}$	1.5							Amps
Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method) T_J=150°C	I_{FSM}	50.0							Amps
Rating for fusing (t < 8.3ms)	I^2t	10							A^2sec
Max. instantaneous forward voltage drop per leg at 1.5A	V_F	1.1							Volts
Maximum DC reverse current T_A=25°C at rated DC blocking voltage per leg T_A=125°C	I_R	5.0 500							uA
Typical junction capacitance per leg (1)	C_J	25							pF
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

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

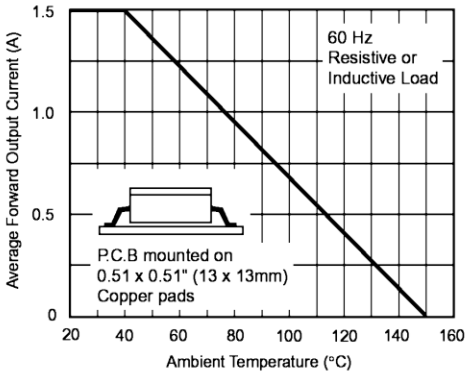


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

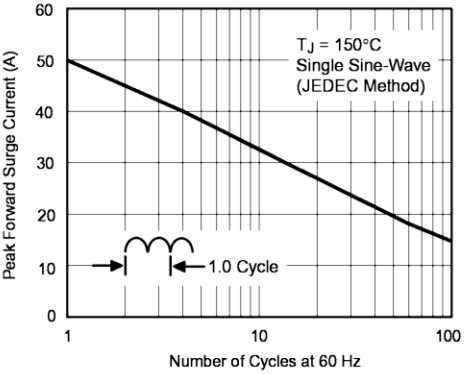


Fig. 3 - Typical Forward Characteristics Per Leg

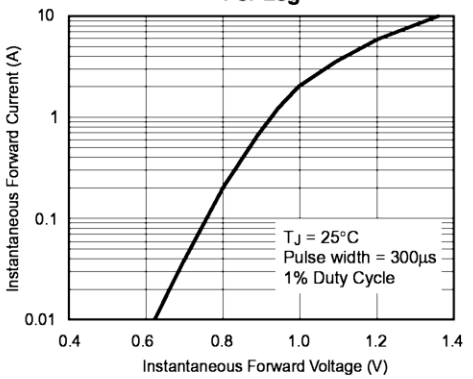


Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

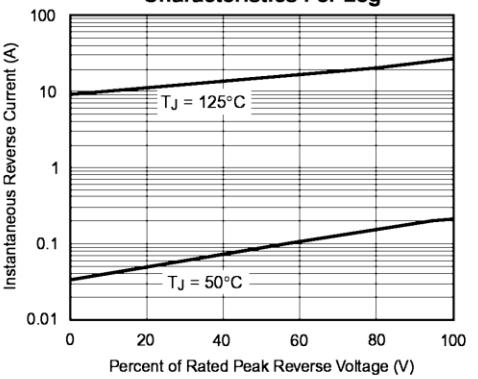


Fig. 5 - Typical Junction Capacitance Per Leg

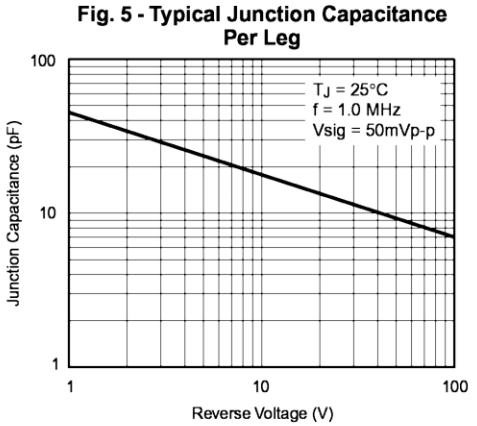


Fig. 6 - Typical Transient Thermal Impedance