Voltage Range - 50 to 1000 V Forward Current - 1 Ampere

1.0A SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS

FEATURES

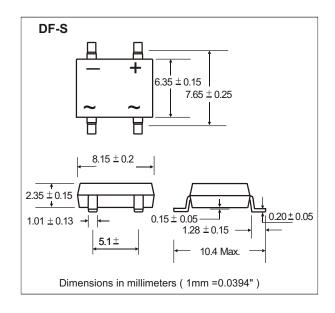
- The plastic material used carries Underwriters
- Laboratory flammability recognition 94V-0
- Surge overload ratings to 30 amperes
- Ideal for printed circuit board application
- High temperature soldering guaranteed 260 C/5 seconds at 5 lbs (2.3kg) tension

MECHANICAL DATA

■ Case: Molded plastic

■ Terminals: Plated leads solderable per MIL-

STD-202, Method 208
Polarity: Marked on body
Mounting Position: Any
Weight: 0.33 grams (approx)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

■ Ratings at 25°C ambient temperature unless otherwise specified Single Phase, half wave, 60Hz, resistive or inductive load For capacitive load derate current by 20%.

PARAMETER	SYMBOLS	DF005S	DF01S	DF02S	DF04S	DF06S	DF08S	DF10S	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS bridge input 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 rectified output current at TA=40°C	$I_{F(AV)}$	1.0							Amps
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							Amps
Rating for Fusing (t < 8.3ms)	I^2t	10							A^2s
Typical thermal resistance per element (1)	$R_{\Theta JA}$	110							°C/W
Typical junction capacitance per element (2)	C_{J}	25.0							pF
Operating junction and storage temperature range	T_{J} , T_{STG}	(-55 to +150)							$^{\circ}\!\mathbb{C}$

ELECTRICAL CHARACTERISTICS

• Ratings at 25° ambient temperature unless otherwise specified Single Phase, half wave, 60Hz, resistive or inductive load For capacitive load derate current by 20%.

Parameter	Symbol	DF005S	DF01S	DF02S	DF04S	DF06S	DF08S	DF10S	UNIT
Maximum instantaneous forward voltage drop per leg at 1.0A	VF	1.1							V
Maximum DC reverse current at rated TA =25 C DC blocking voltage per element TA =125°C	IR	10 500						μΑ	

Notes: (1) Thermal resistance from Junction to Ambemt on P.C. board mounting.

(2)Measured at 2.0MHz and applied reverse voltage of 4.0 volts.

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RATING AND CHARACTERISTIC CURVES (TA=25 C Unless otherwise noted)

Fig. 1 Derating Curve for Output Rectified Current

1.0

60Hz Resistive of Inductive Load

0.5

0.5

Ambient Temperature, C

60 Hz Resistive of Inductive Load

1.0

40 60 80 100 120 140

Fig. 2 Maximum Non-repetitive Peak
Forward Surge Current

60
50
8.3ms
Single half-sine-Wave
[JEDEC Method]

10
Number of Cycles at 60Hz

Fig. 3 Typical Instantaneous Forward Characteristics

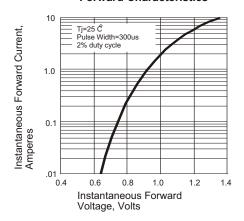


Fig. 4 Typical Revers Characteristics

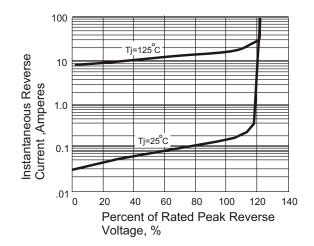
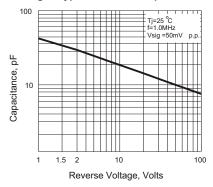


Fig. 5 Typical Junction Capacitance



Disclaimer

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.

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