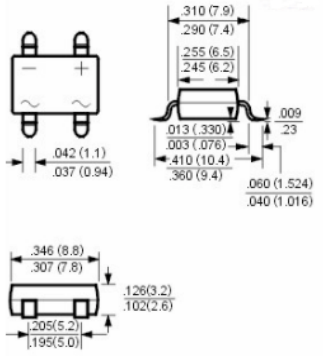
DF005S THRU DF10S

SINGLE-PHASE GLASS PASSIVATED SILICON SURFACE MOUNT BRIDGE RECTIFIER

Reverse Voltage - 50 to 1000 V
Forward Current - 1 A

DB-S



Dimensions in inches and (millimeters)

Features

- High surge overload rating of 50 A peak
- Ideal for printed circuit board
- Low forward voltage drop
- Glass passivated chip junction

Mechanical Data

- Case: Molded plastic, DB-S
- Epoxy: UL 94V-0 rate flame retardant
- Terminal: Leads solderable per MIL-STD-202, method 208 guaranteed
- Mounting position: Any

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	Units
Maximum Recurrent 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 Rectified Current at T_A = 40 °C [2]	$I_{(AV)}$	1							A
Peak Forward Surge Current 8.3 ms Single Half-sine -wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50							A
Maximum Forward Voltage at 1 A DC	V_F	1.1							V
Maximum Reverse Current T_A = 25 °C at Rated DC Blocking Voltage T_A = 125 °C	I_R	5 500							µA
Typical Junction Capacitance [1]	C_J	25							pF
Typical Thermal Resistance [2]	$R_{\theta JA}$	40							°C/W
Typical Thermal Resistance [2]	$R_{\theta JL}$	15							°C/W
Operating and Storage Temperature Range	T_j ,T_{stg}	- 55 to + 150							°C

[1] Measured at 1 MHz and applied reverse voltage of 4 V DC.

[2] Units mounted P.C.B. with 0.5 X 0.5" (13 X 13 mm) copper pads.

Fig. 1 - Derating Curve Output Rectified Current

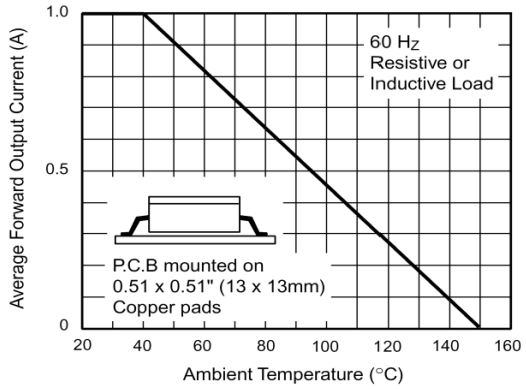


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

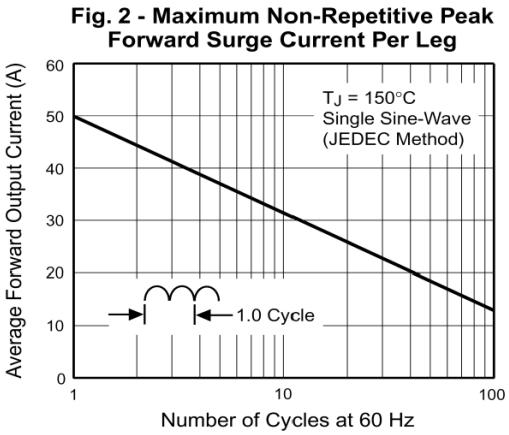


Fig. 3 - Typical Forward Characteristics Per Leg

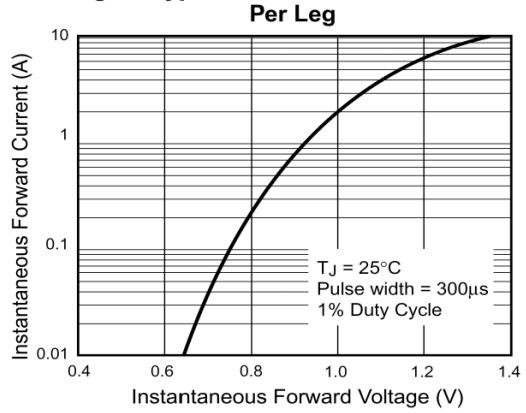


Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

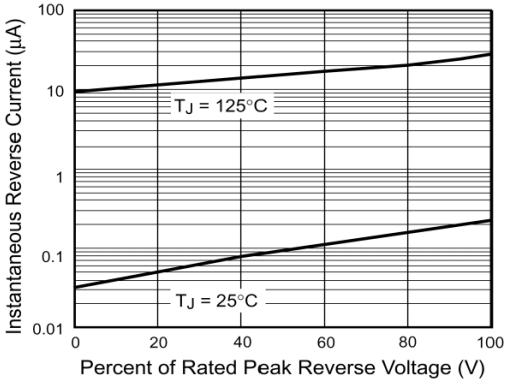


Fig. 5 - Typical Junction Capacitance Per Leg

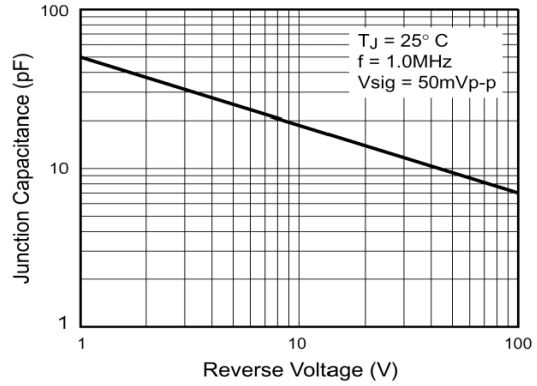


Fig. 6 - Typical Transient Thermal Impedance