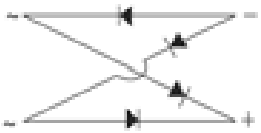
DF005S thru DF10S

Miniature Glass Passivated Single-Phase Surface Mount Bridge Rectifiers
Reverse Voltage 50 to 1000 Volts Forward Current 1.0 Ampere

Features

- Ideal for printed circuit boards
- Applicable for automative insertion
- High surge current capability
- Solder Dip 260°C, 40 seconds

DFS



Schematic Diagram

Mechanical Data

- Case: DFS
- Epoxy meets UL-94V-0 Flammability rating
- Terminals: Matte tin plated (E3 Suffix) leads, solderable per J-STD-002B and JESD22-B102D
- Polarity: As marked on body

Applications

General purpose use in ac-to-dc bridge full wave rectification for SMPS, Lighting Ballaster, Adapter, Battery Charger, Home Appliances, Office Equipment, and Telecommunication application

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

Parameter		Symbols	DF005S DBS101	DF01S DBS102	DF02S DBS103	DF04S DBS104	DF06S DBS105	DF08S DBS106	DF10S DBS107	Units
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)		I_{FSM}	30.0							A
Rating For Fusing (t < 8.3ms)		I^2t	10							A^2sec
Maximum Instantaneous Forward Voltage Drop Per Leg At 0.5A		V_F	1.1							V
Maximum DC Reverse Current At Rated DC Blocking Voltage Per Leg	T_A=25°C	I_R	5.0							uA
	T_A=125°C		500							
Typical Junction Capacitance Per Leg[1]		C_J	25							pF
Typical Thermal Resistance Per Leg[2]		$R_{\theta JA}$	40							°C/W
		$R_{\theta JL}$	15							°C/W
Operating Junction Temperature		T_J	-55 to +150							°C
Storage Temperature Range		T_{STG}	-55 to +150							°C

Notes: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volt
2. Units mounted on P.C.B. with 0.51 x 0.51" (13 x 13mm) copper pads

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Ratings and Characteristics Curves (T_A = 25°C unless otherwise noted)

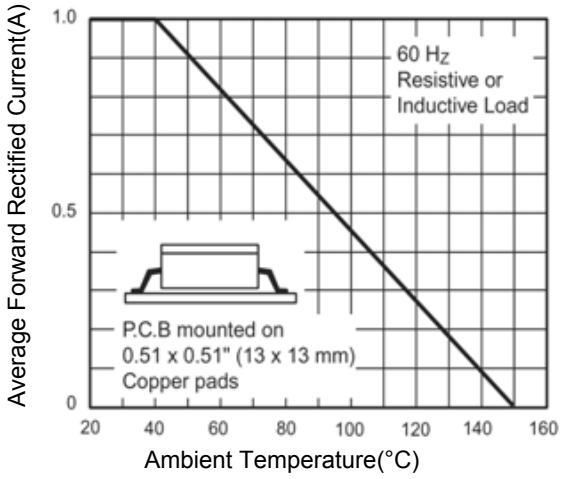

Figure 1. Derating Curve For Output Rectified Current

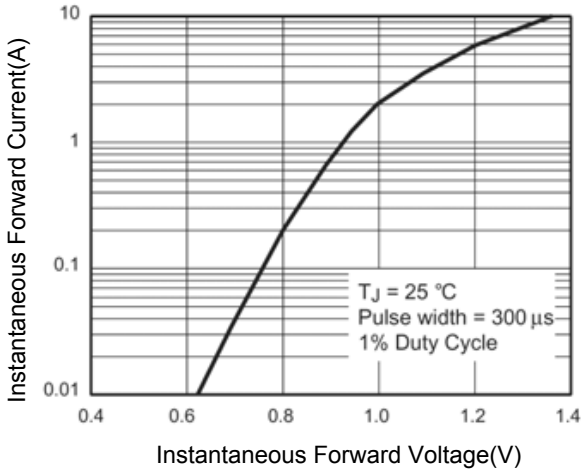

Figure 2. Typical Forward Characteristics Per Leg

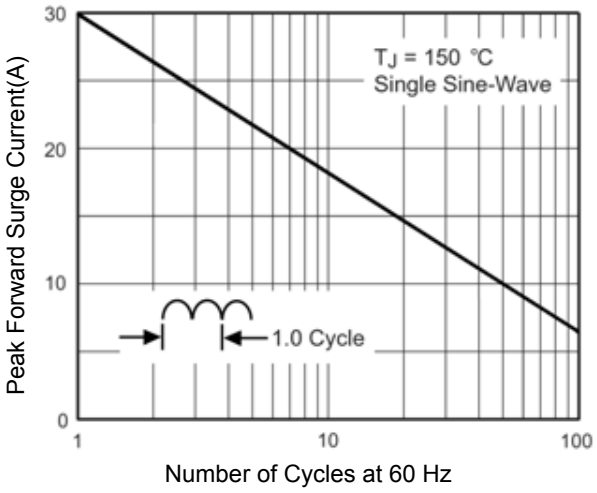

Figure 3. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

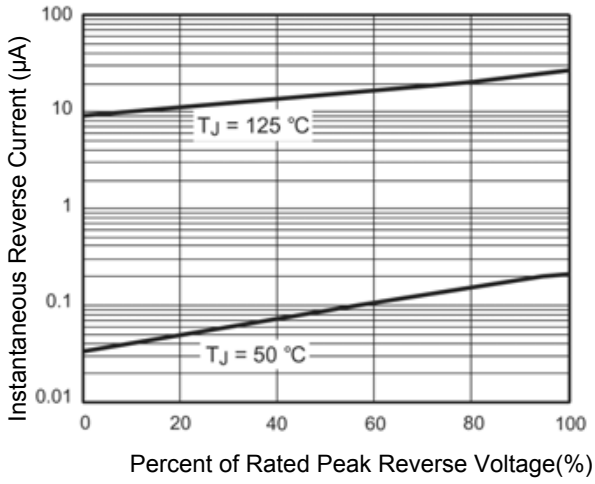

Figure 4. Typical Reverse Leakage Characteristics Per Leg

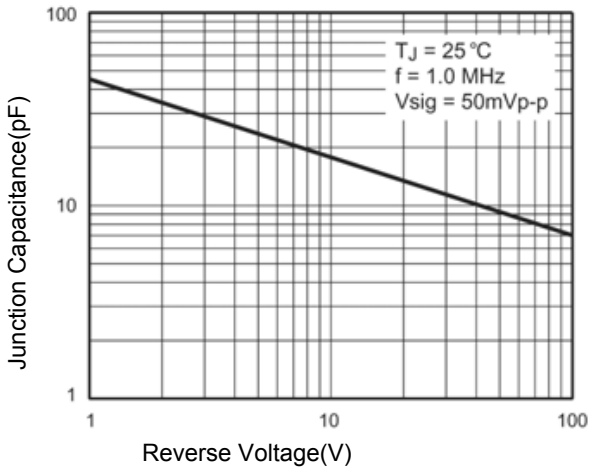

Figure 5.Typical Junction Capacitance Per Leg

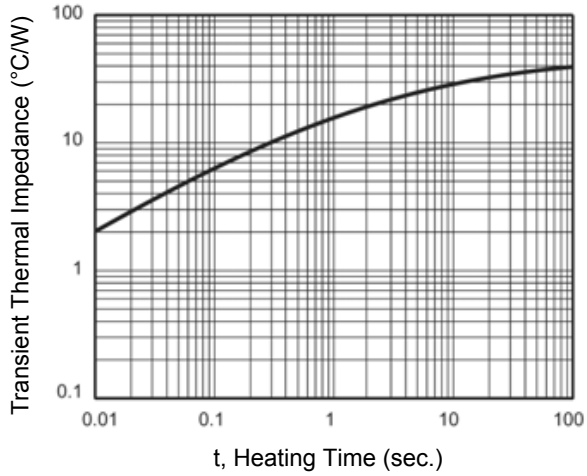

Figure 6. Typical Transient Thermal Impedance

Package Outline Dimensions

DFS