DF15005S THRU DF1510S

SINGLE PHASE GLASS PASSIVATED SURFACE MOUNT BRIDGE RECTIFIER

VOLTAGE:50 TO 1000V CURRENT:1.5A

GULF SBMI

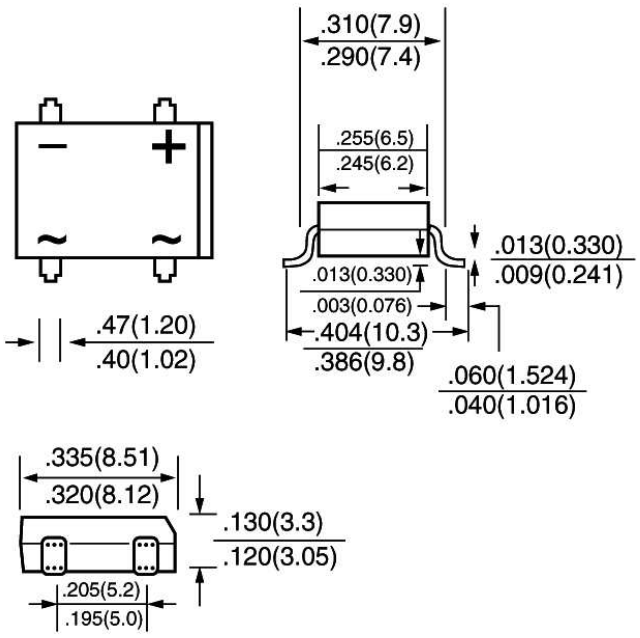
FEATURE

For surface mount application
Reliable low cost construction utilizing molded plastic Technique
Surge overload rating:50 A peak

MECHANICAL DATA

Terminal: Plated leads solderable per MIL-STD 202E, method 208C
Case: UL-94 Class V-0 recognized Flame Retardant Epoxy
Polarity: Polarity symbol marked on body
Mounting position: any

DBS



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated, for capacitive load, derate current by 20%)

	SYMBOL	DF15 005S	DF 1501S	DF 1502S	DF 1504S	DF 1506S	DF 1508S	DF 1510S	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	Vrms	35	70	140	280	420	560	700	V
Maximum DC blocking Voltage	Vdc	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at Ta =40°C	If(av)	1.5							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	Ifsm	50.0							A
Maximum Instantaneous Forward Voltage at forward current per leg 1.5A	Vf	1.1							V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	Ir	10.0 500.0							µA uA
Typical Junction Capacitance (1)	Cj	25.0							Pf
Typical thermal resistance per leg (2)	$R_{\theta JA}$ $R_{\theta JL}$	40 15							°C/w
Operating Temperature Range	Tj	-55 to +150							°C
Storage and Operating Junction Temperature	Tstg	-55 to +150							°C

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

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Fig. 1 - Derating Curve Output Rectified Current

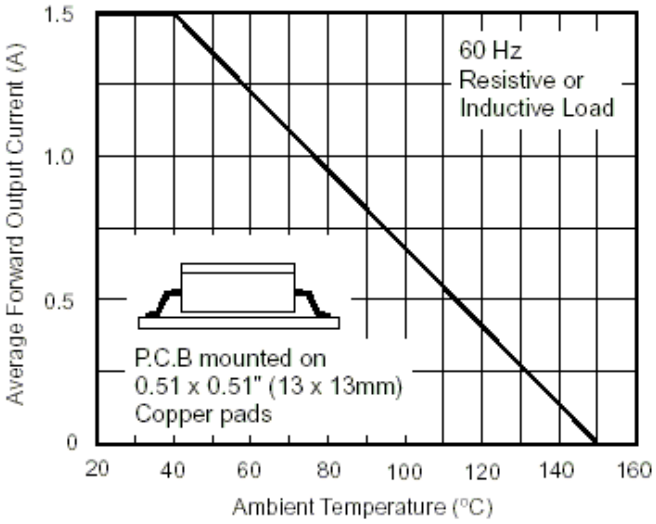

Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

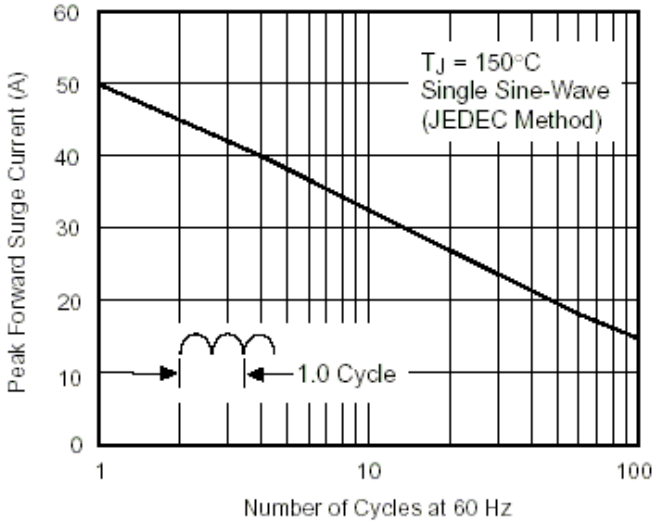

Fig. 3 - Typical Forward Characteristics Per Leg

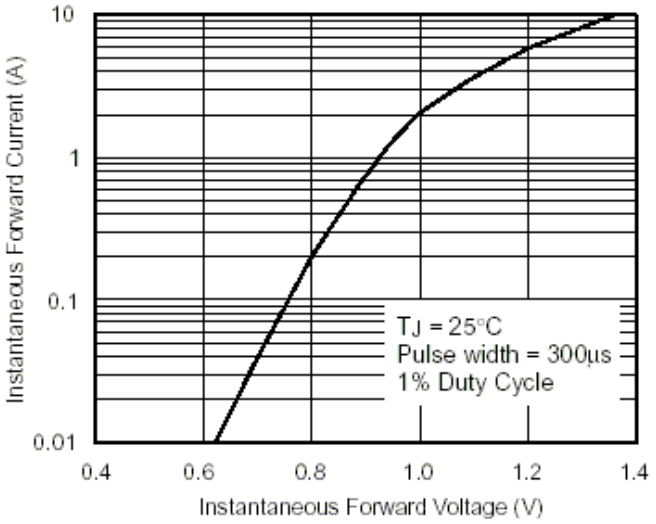

Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

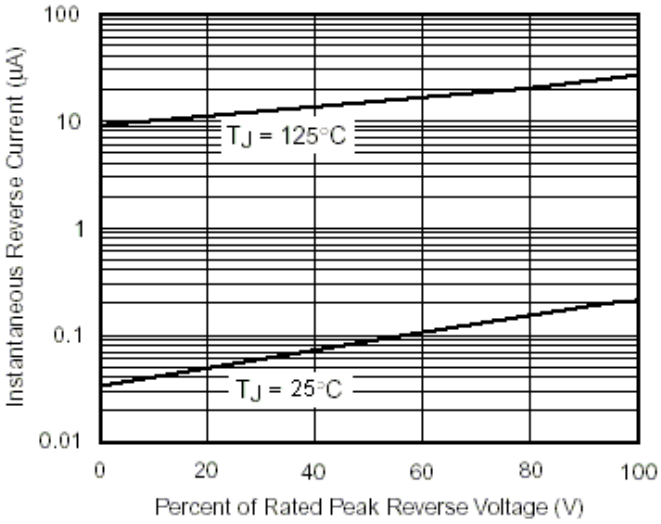

Fig. 5 - Typical Junction Capacitance Per Leg

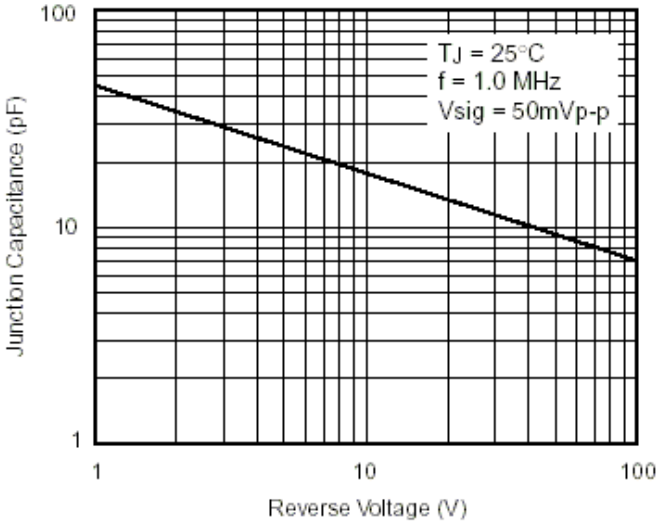

Fig. 6 - Typical Transient Thermal Impedance