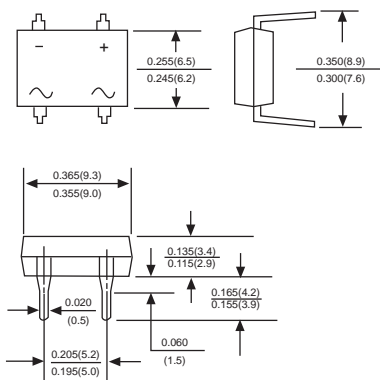


# DF1505 THRU DF1510 AND DB151 THRU DB157

## SILICON BRIDGE RECTIFIERS

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.5 Ampere

**DB-1**



Dimensions in inches and (millimeters)

### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Ideal for printed circuit boards
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 260°C/10 seconds, 5 lbs. (2.3kg) tension

### MECHANICAL DATA

**Case:** Molded plastic body

**Terminals:** Plated leads solderable per MIL-STD-750, Method 2026

**Polarity:** Polarity symbols marked on case

**Mounting Position:** Any

**Weight:** 0.04 ounce, 1.0 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for current capacitive load derate by 20%.

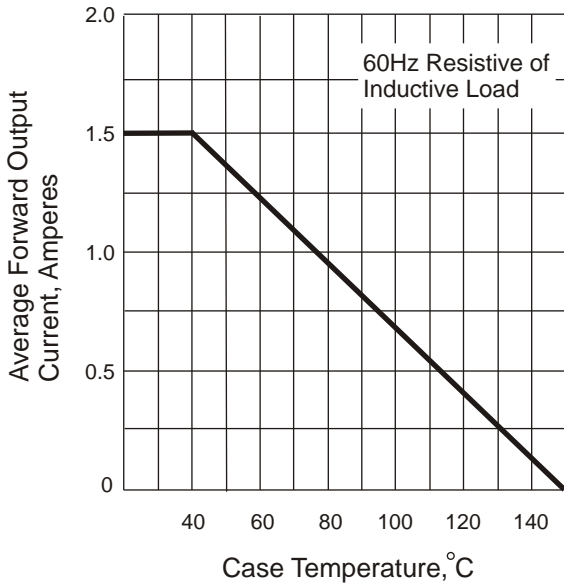
	SYMBOLS	DF1505 DB151	DF1501 DB152	DF1502 DB153	DF1504 DB154	DF1506 DB155	DF1508 DB156	DF1510 DB157	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	VOLTS
Maximum average forward output rectified current 0.06" (1.5mm) lead length at $T_A=40^\circ\text{C}$ (Note 2)	$I_{(AV)}$	1.5							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50.0							Amps
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	10							$\text{A}^2\text{s}$
Maximum instantaneous forward voltage drop per bridge element at 1.5A	$V_F$	1.1							Volts
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	$I_R$	10							$\mu\text{A}$
		0.5							mA
Typical Junction Capacitance (Note 1)	$C_J$	25							pF
Typical Thermal Resistance (Note 2)	$R_{qJA}$	40							$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_J$	-65 to +150							$^\circ\text{C}$
storage temperature range	$T_{STG}$	-65 to +150							$^\circ\text{C}$

NOTES:

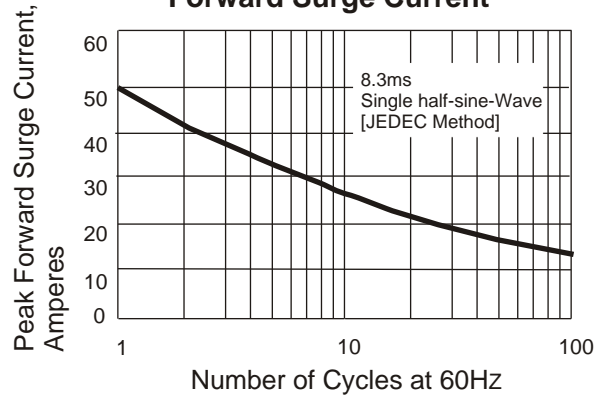
1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.

2. Unit mounted on P.C. board with 0.51" x 0.51" (13x13mm) copper pads.

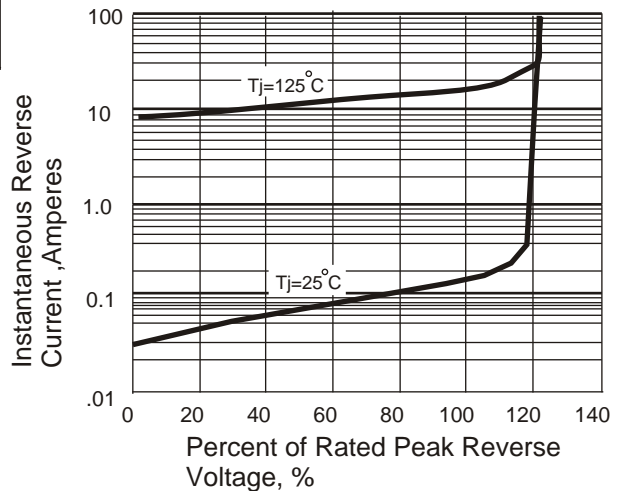
**Fig. 1 Derating Curve for Output Rectified Current**



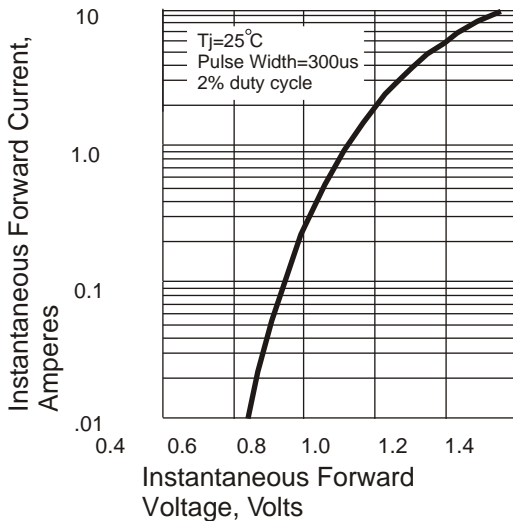
**Fig. 2 Maximum Non-repetitive Peak Forward Surge Current**



**Fig. 4 Typical Revers Characteristics**



**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 5 Typical Junction Capacitance**

