DB151S THRU DB157S

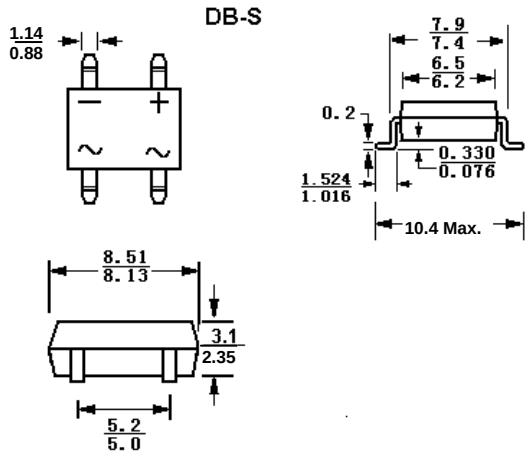
SINGLE-PHASE GLASS PASSIVATED SILICON SURFACE MOUNT BRIDGE RECTIFIERS
Reverse Voltage – 50 to 1000 V
Forward Current – 1.5 A

Features

- High surge overload rating of 50 amperes peak
- Ideal for printed circuit board
- Plastic material has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated chip junction

Mechanical data

- Case Molded plastic, DB-S
- Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed
- Mounting position: Any



Dimensions in mm

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	DB 151S	DB 152S	DB 153S	DB 154S	DB 155S	DB 156S	DB 157S	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℃ [2]	I_O	1.5							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	50							A
Maximum forward voltage at 1.5 A DC and 25℃	V_F	1.1							V
Maximum reverse current at rated DC blocking voltage T_A = 25℃ / T_A =125℃	I_R	5 / 500							μA / mA
Typical junction capacitance [1]	C_J	25							PF
Typical thermal resistance [2]	$R_{\theta JA}$	40							℃/W
Typical thermal resistance [2]	$R_{\theta JL}$	15							℃/W
Operating and storage temperature range	T_J , T_{Stg}	-55 to +150							℃

[1] Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

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

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FIG.1-Derating curve output rectified current

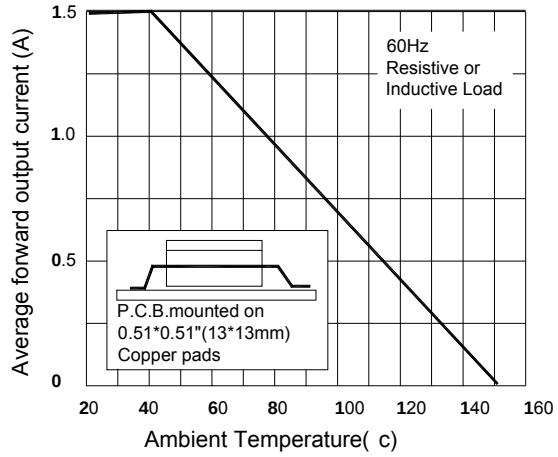


FIG.2-Maximum non-repetitive peak forward surge current per leg

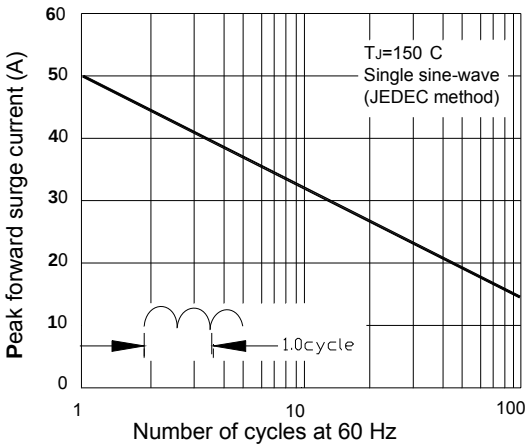


Fig.3-Typical forward characteristics per leg

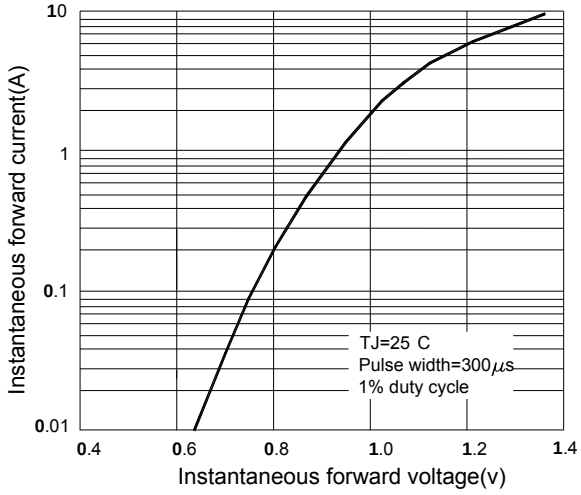


Fig.4-Typical reverse leakage characteristics per leg

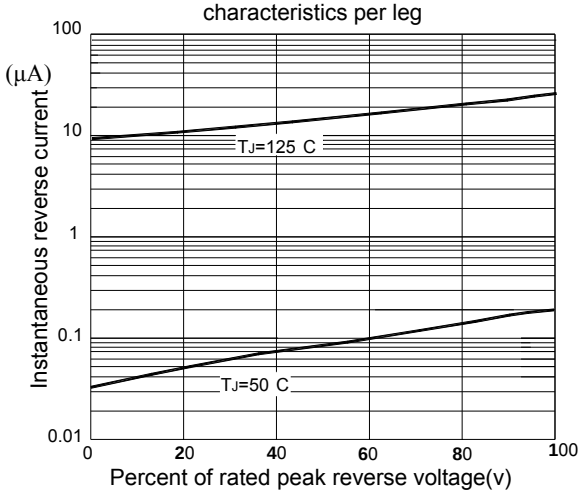


Fig.5-Typical junction capacitance per leg

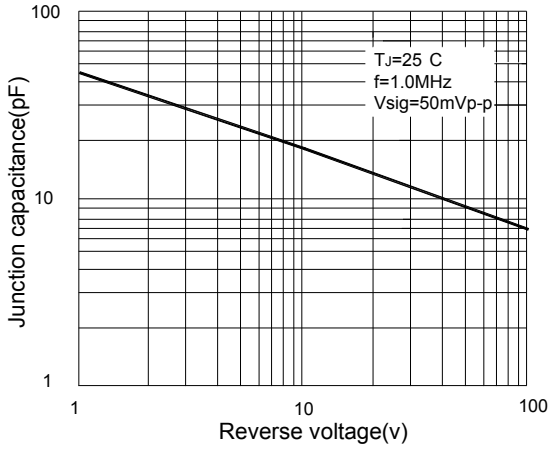
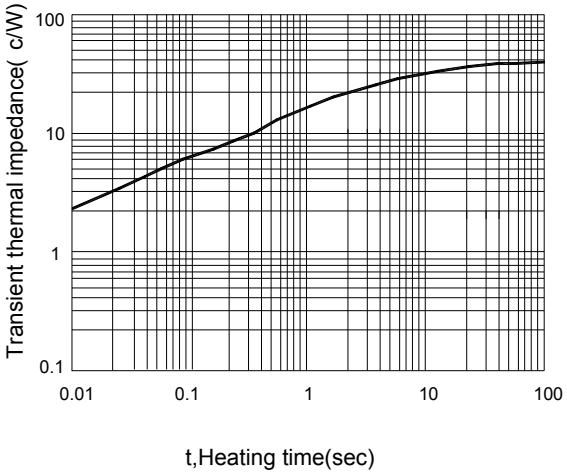


Fig.6-Typical transient thermal impedance



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