

DB151S THRU DB157S

SINGLE-PHASE GLASS PASSIVATED SILICON SURFACE MOUNT BRIDGE RECTIFIERS

Reverse Voltage – 50 to 1000 Volts

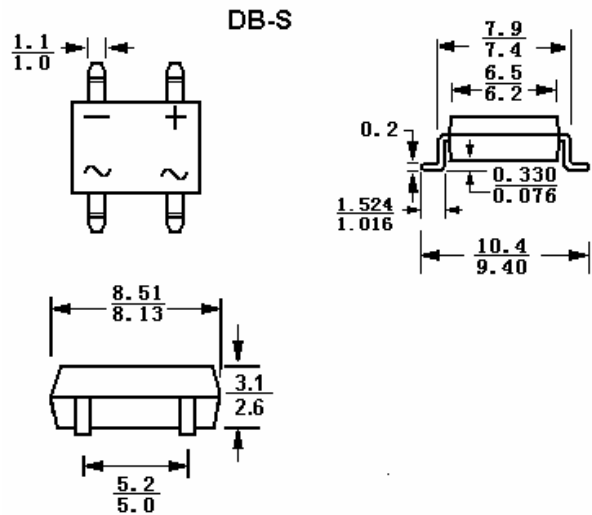
Forward Current – 1.5 Ampere

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

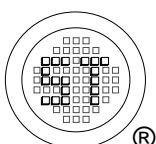
Maximum Ratings and Electrical Characteristics

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%.

	Symbols	DB	DB	DB	DB	DB	DB	DB	Units	
		151S	152S	153S	154S	155S	156S	157S		
Maximum recurrent 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 rectified current at $T_A = 40^\circ\text{C}$ (Note 2)	I_o	1.5							Amps	
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	50							Amps	
Maximum forward voltage at 1.5A DC and 25°C	V_F	1.1							Volts	
Maximum reverse current at rated DC blocking voltage	I_R	@ $T_A = 25^\circ\text{C}$	5							μAmps
		@ $T_A = 125^\circ\text{C}$	500							mAmps
Typical junction capacitance(Note 1)	C_J	25							Pf	
Typical thermal resistance(Note 2)	$R_{\theta JA}$	40							$^\circ\text{C}/\text{w}$	
Typical thermal resistance(Note 2)	$R_{\theta JL}$	15							$^\circ\text{C}/\text{w}$	
Operating and storage temperature range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$	

NOTES: 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.



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



ISO 9001:2000
Certificate No. 0506088

Dated : 10/12/2003

DB151S THRU DB157S

FIG.1-Derating curve output rectified current

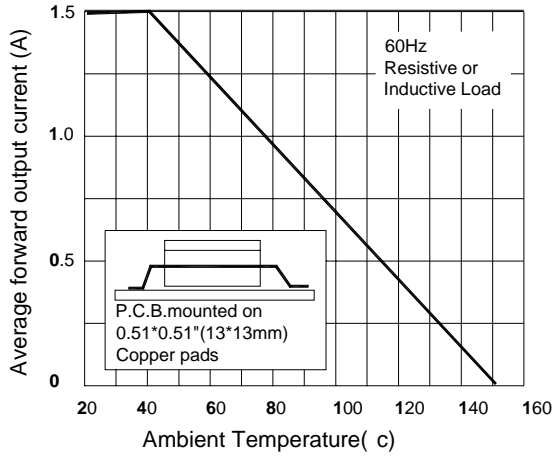


FIG.2-Maximum non-repetitive peak forward surge current per leg

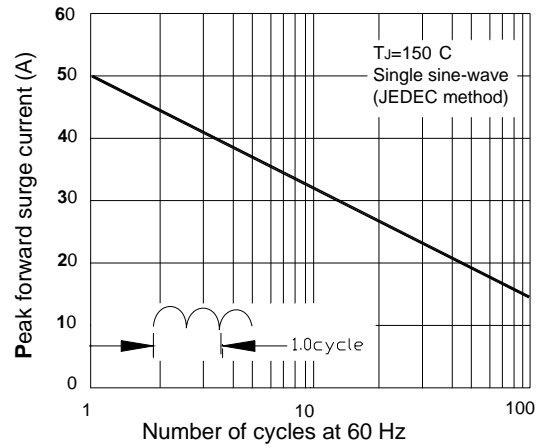


Fig.3-Typical forward characteristics per leg

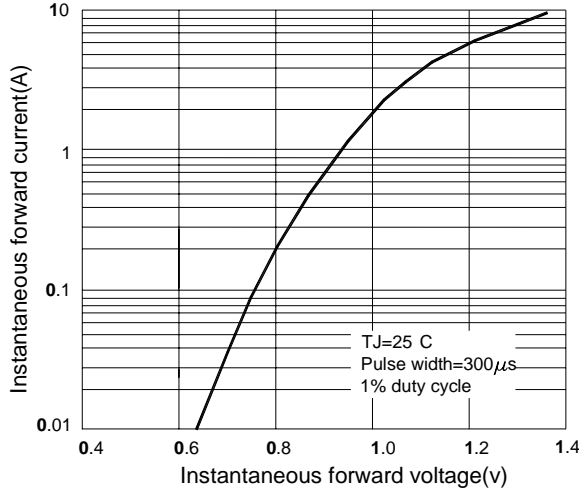


Fig.4-Typical reverse leakage characteristics per leg

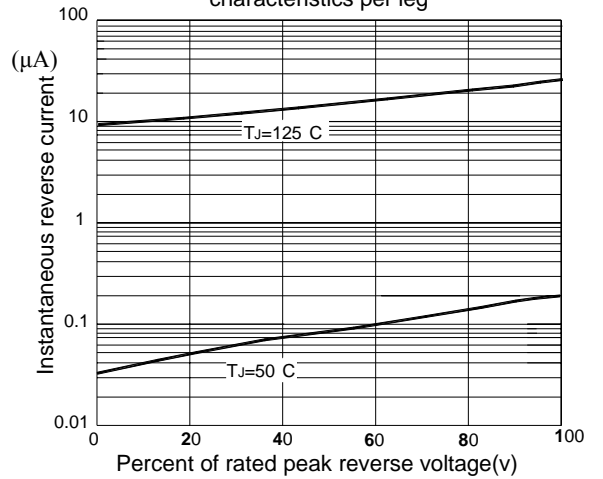


Fig.5-Typical junction capacitance per leg

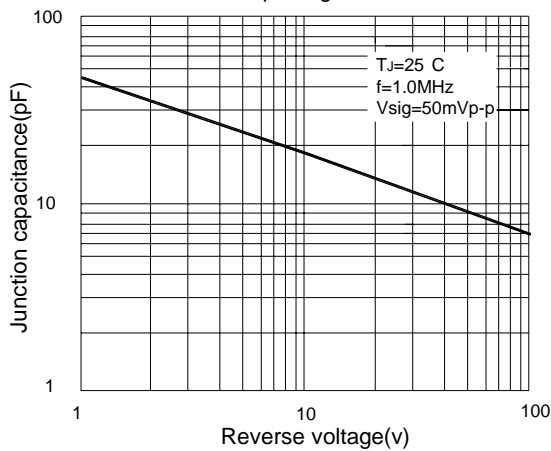
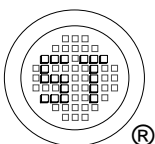
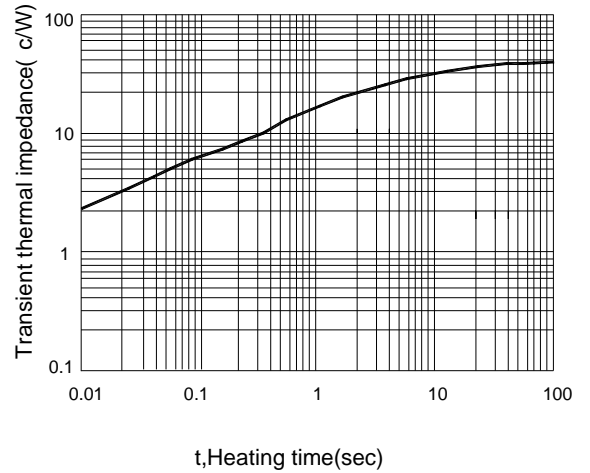


Fig.6-Typical transient thermal impedance



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



Dated : 10/12/2003