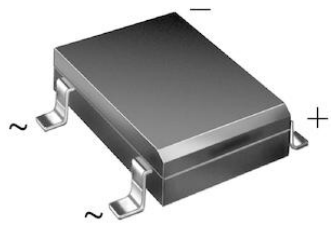
Technical Data
Data Sheet N1476, Rev. C

DB151S THRU DB157S SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIERS

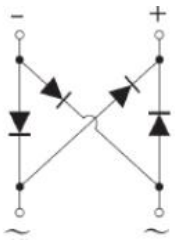


DB-S

Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Designed for surface mount application
- Plastic material-UL flammability 94V-0
- This is a Pb − Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: DB-S, molded plastic
- Terminals: plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting position: Any
- Lead Free: For RoHS / Lead Free Version,

Maximum Ratings @T_A=25°C unless otherwise specified

Single Phase half wave 60Hz, resistive or inductive load. For capacitive load current derate by 20%.

Characteristic	Symbol	DB 151S	DB 152S	DB 153S	DB 154S	DB 155S	DB 156S	DB 157S	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Forward Output Current (Note 1) @ T_C =100°C	$I_{F(AV)}$	1.5							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	55							A
I^2t Rating for Fusing (t < 8.3ms)	I^2t	12.6							A^2s

DB151S THRU DB157S

Technical Data
Data Sheet N1476, Rev. C

Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	DB 151S	DB 152S	DB 153S	DB 154S	DB 155S	DB 156S	DB 157S	Units
Maximum Forward Voltage Drop* per Bridge Element @I_F =1.5A, T_J=25°C	V_F	1.0							V
Peak Reverse Current* @T_A = 25°C At Rated DC Blocking Voltage* @T_A = 125°C	I_R	5 100							μA
Typical Junction Capacitance (Note 2)	C_J	20							pF

* Pulse width < 300 μs, duty cycle < 2%

Thermal-Mechanical Specifications @T_A=25°C unless otherwise specified

Characteristic	Symbol	DB 151S	DB 152S	DB 153S	DB 154S	DB 155S	DB 156S	DB 157S	Units
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	40							°C/W
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	15							°C/W
Operating Junction and Storage Temperature Range	T_J ,T_{STG}	-55 to + 150							°C

Note: 1. Mounted on glass epoxy PC board with 1.3mm^2 solder pad.
2. Measured at 1.0 MHZ and applied reverse voltage of 4.0 VDC

Ratings and Characteristics Curves

Fig. 1 Output Current Derating Curve

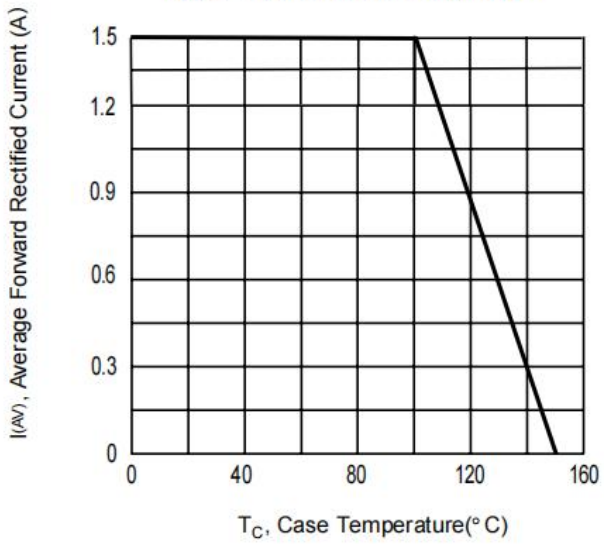


Fig. 2 Typical Forward Characteristics

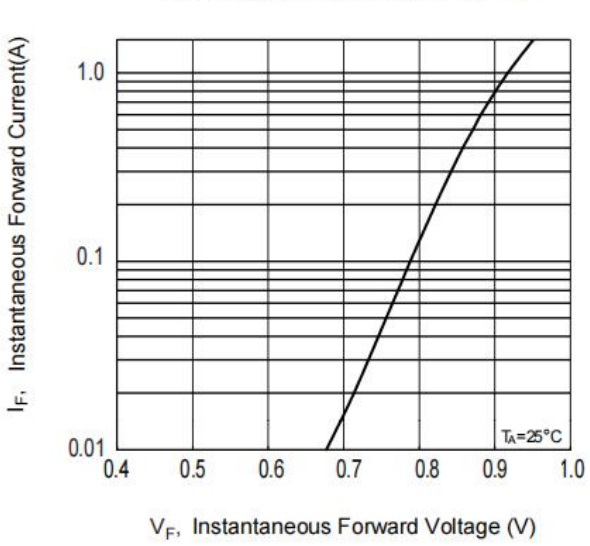


Fig.3 Maximum Peak Forward Surge Current

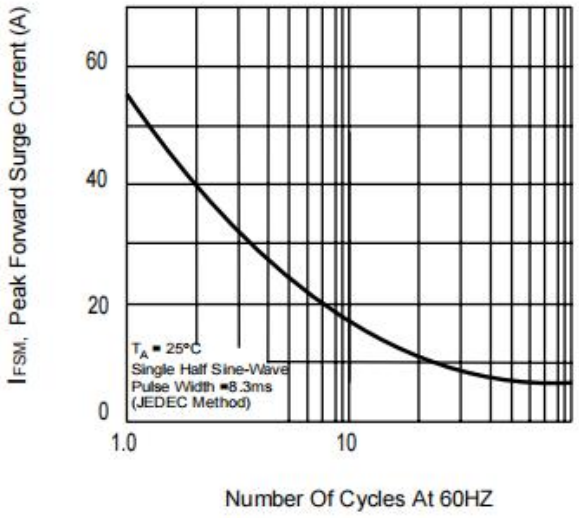


Fig.4 Typical Reverse Characteristics

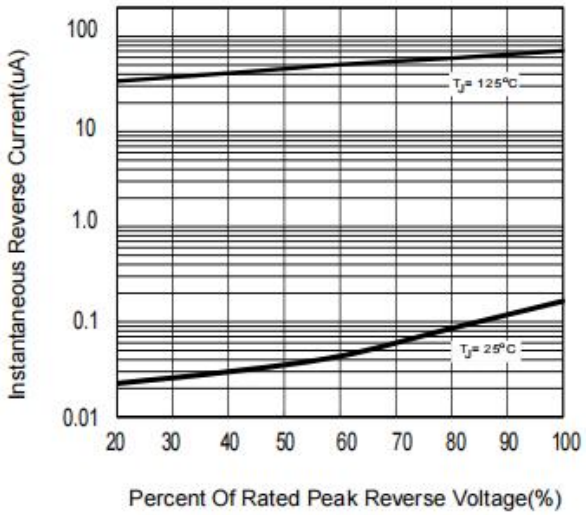
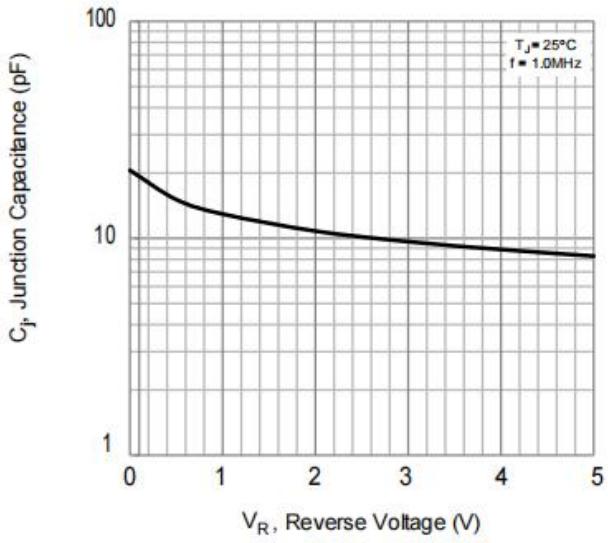
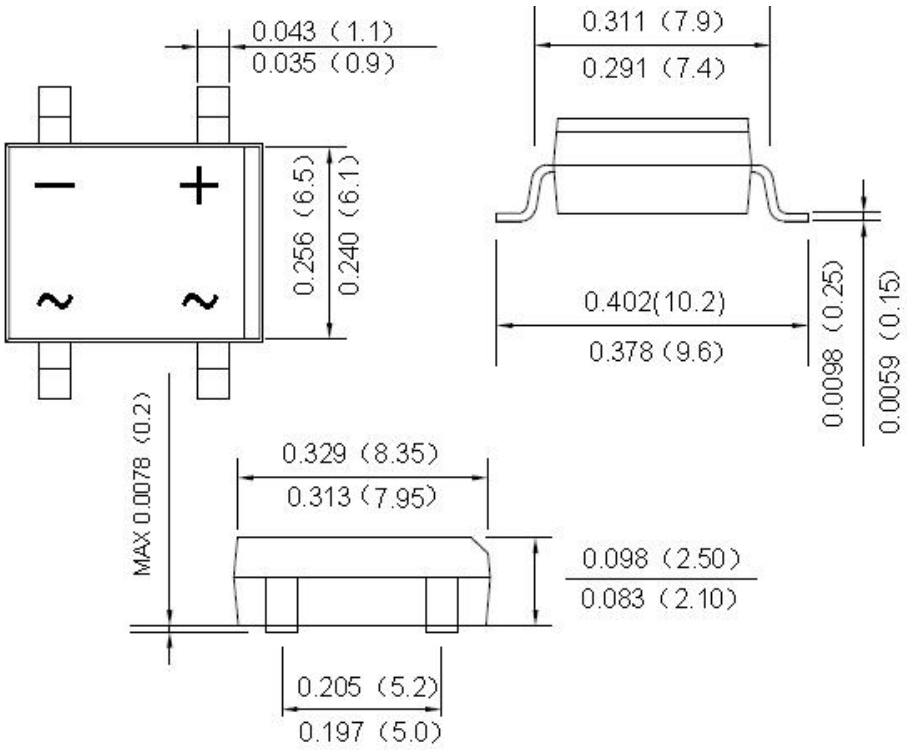


Fig. 5 Typical Junction Capacitance



Mechanical Dimensions DB-S(Inches/Millimeters)



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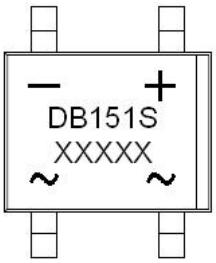
Technical Data
Data Sheet N1476, Rev. C

Ordering Information

Device	Package	Plating	Shipping
DB151S THRU DB157S	DB-S (Pb-Free)	Pure Sn	1500pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram

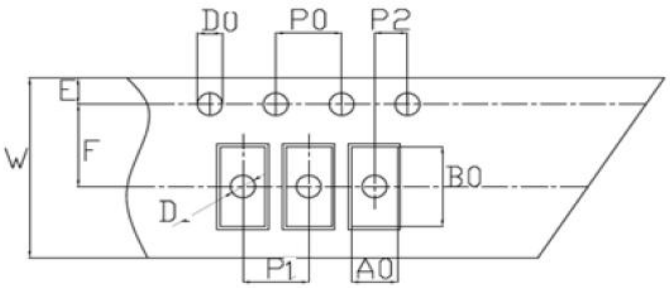


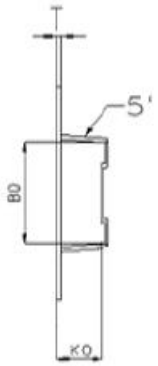
Where XXXXX is YYWWL

DB151S = Type Number
YY = Year
WW = Week
L = Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Carrier Tape Specification DB-S





SYMBOL	Millimeters	
	Min.	Max.
A0	8.65	8.95
B0	10.31	10.51
D0	1.50	1.60
D1	1.40	1.60
P0	3.90	4.10
P1	11.90	12.10
P2	1.90	2.10
E	1.65	1.85
K0	3.21	3.41
F	7.40	7.60
W	15.70	16.30
T	0.30	0.40
10P0	39.80	40.20

Technical Data
Data Sheet N1476, Rev. C

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