

Single Phase Glass Passivated Bridge Rectifiers

Features

- Rating to 1000V PRV
- Ideal for printed circuit board
- Low forward voltage drop, high current capability
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- The plastic material has UL flammability classification 94V-0
- Lead free in comply with EU RoHS 2011/65/EU directives



Mechanical Data

- Case: DBS
- Polarity: As marked on Body
- Approx. Weight: 0.3g
- Mounting position: Any

Ordering Information

Part Number	Shipping	Reel
DB101S THRU DB107S-TR1K5	1500PCS Tape&Reel	13 inches

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

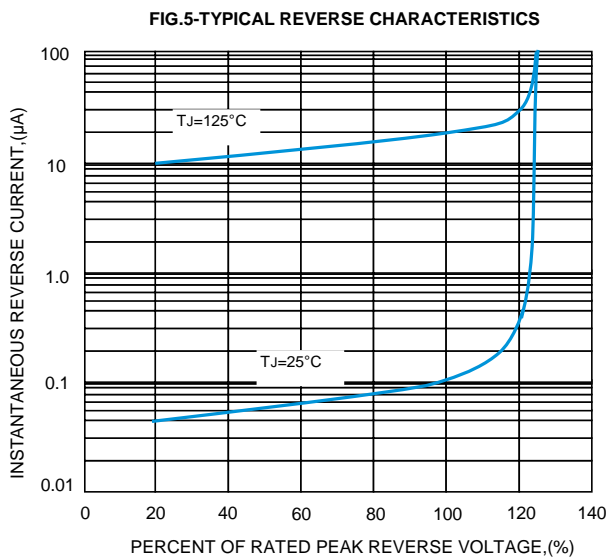
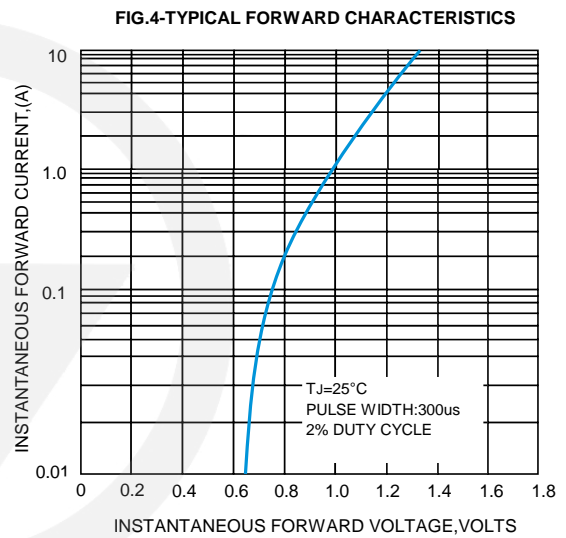
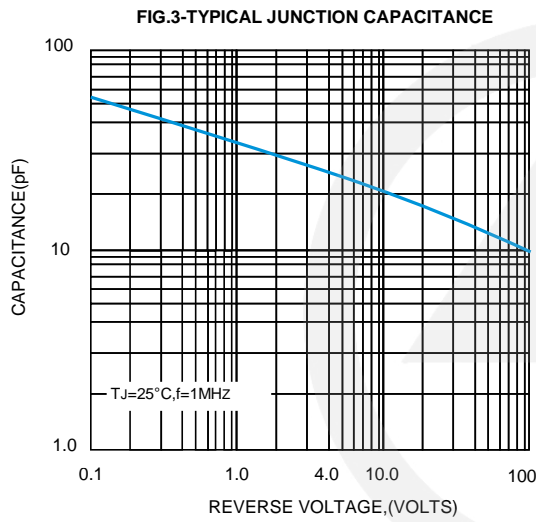
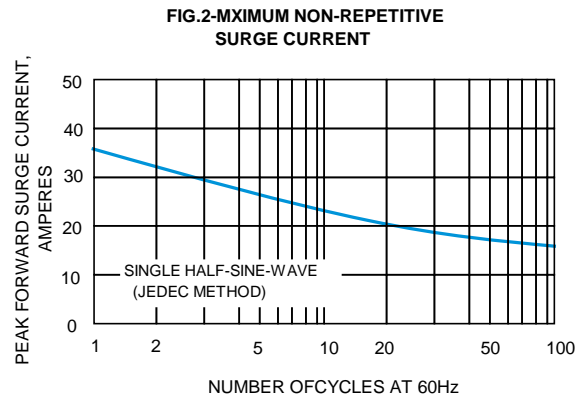
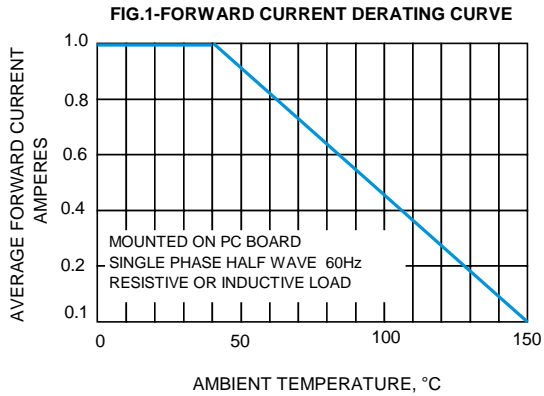
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load derate current by 20%.

Characteristics	Symbol	DB101S	DB102S	DB103S	DB104S	DB105S	DB106S	DB107S	Unit
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 @T _A =40°C	I _(AV)	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I _{FSM}	35							A
Maximum Forward Voltage at 1.0A DC	V _F	1.1							V
Maximum DC Reverse Current @T _J =25°C at Rated DC Blocking Voltage @T _J =125°C	I _R	10 500							μA
I ² t Rating for Fusing (t<8.3ms)	I ² t	5							A ² s
Typical Junction Capacitance Per Element (Note1)	C _J	25							pF
Typical Thermal Resistance (Note2)	R _{JA}	63							°C/W
Operating Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

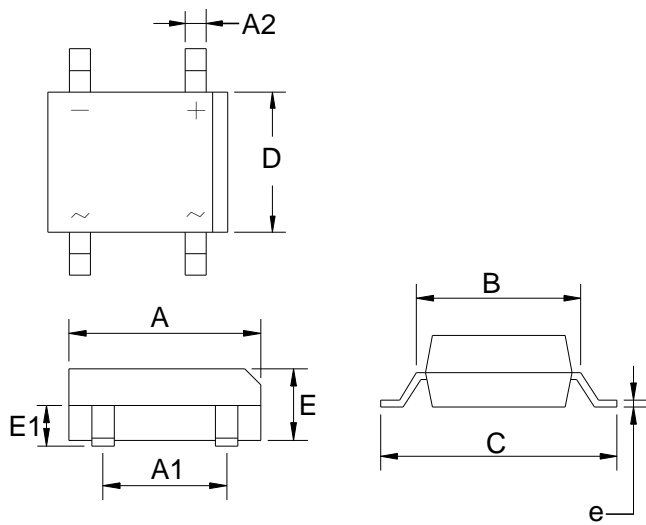
Note: DBS for surface mount package.



Characteristics Curves



DBS Package Outline



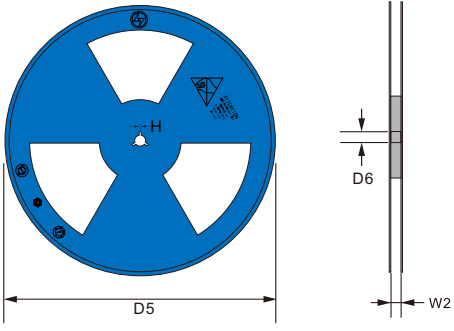
Unit : mm

SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	7.800	8.500
A1	5.000	5.200
A2	0.900	1.200
B	7.200	8.000
C	9.700	10.200
D	6.200	6.500
E	2.350	3.000
E1	1.300	1.600
e	0.200	0.350

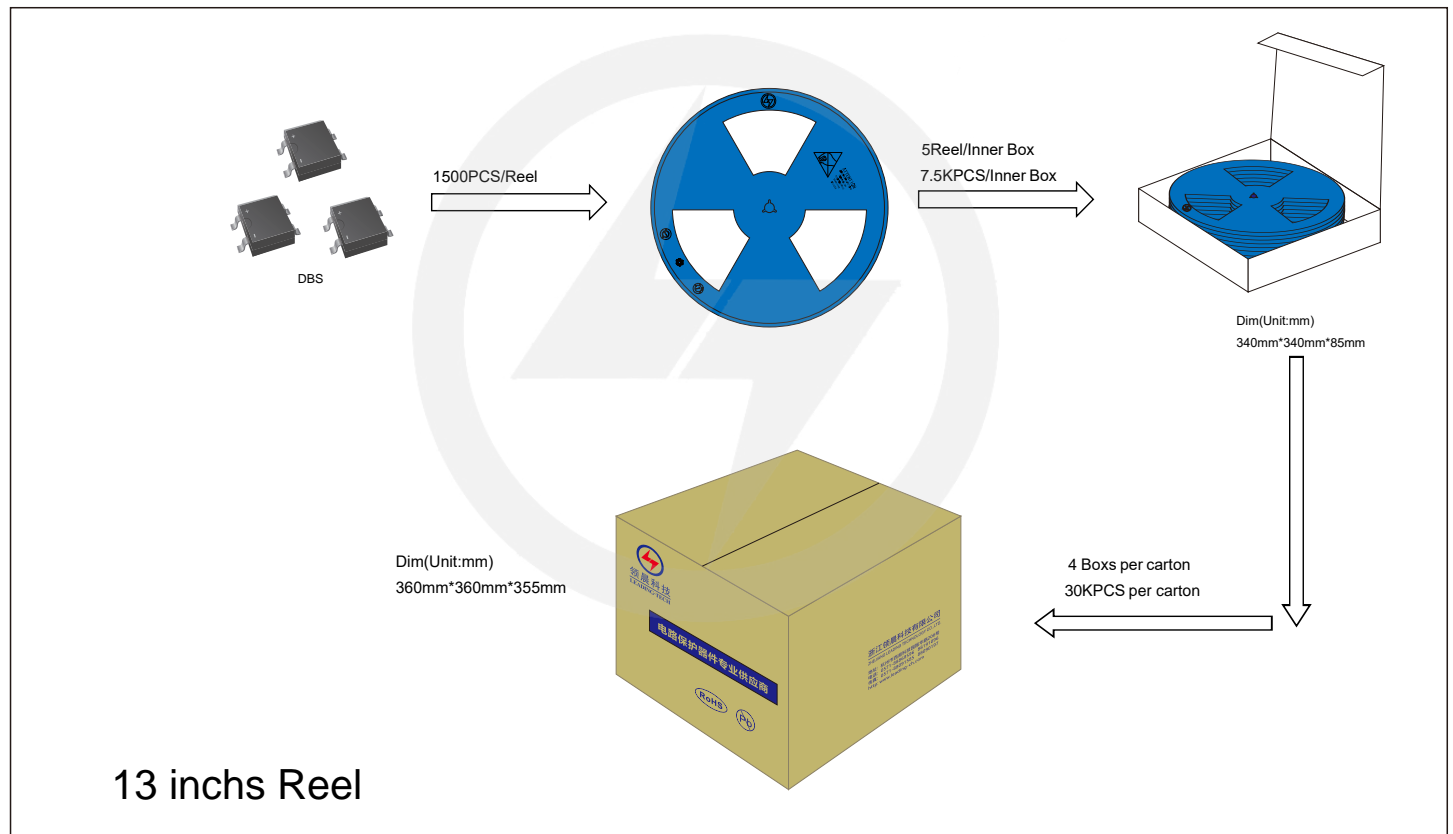


Reel Dimensions

Unit : mm

<p>13" Reel</p> 	D5	$\Phi 330.0 \pm 2.0$
	D6	$\Phi 13.5 \pm 0.5$
	H	2.5 ± 1.0
	W2	12 ± 2.0
	Quantity: 1500PCS	

Packaging





Recommended Soldering Conditions



Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate (T_L to T_P)	3°C/second max.
Preheat	
-Temperature Min ($T_{S\ min}$)	150°C
-Temperature Max ($T_{S\ max}$)	200°C
-Time (min to max) (t_s)	60-180 seconds
$T_{S\ max}$ to T_L	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
-Temperature (T_L)	217°C
-Time (t_L)	60-150 seconds
Peak Temperature (T_P)	260°C
Time within 5°C of actual Peak Temperature (t_p)	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

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Version Update Information

Series NO.	Enactment/Revision Date	Effective Date	Version	Revision content	Revision Reason	Revision Person	Note
01	2024.5.18	2024.5.18	3.0	New File	/	Ding	
02	2025.05.29	2025.05.29	3.1	Update packaging information	/	Ding	
03	2025.12.01	2025.12.01	3.2	Modify weight	/	Ding	