

STSB302L thru STSB306L

low Profile Surface Mount Single Phase Bridge Rectifiers

Reverse Voltage 100 to 800V Forward Current 3.0A

FEATURES

- * Low forward voltage drop
- * Low leakage current
- * Ideal for automated placement
- * Glass passivated standard bridge rectifiers
- * Moisture sensitivity: level 1
- * Low profile, Typical Height 1.4mm
- * High temperature soldering guaranteed:
260°C/10 seconds
- * Weight: 0.195g

Typical Applications

For use of general purpose AC to DC bridge rectification in power supply, charger, office appliance, home appliance and telecom device



We declare that the material of product is Halogen free (green epoxy compound)

1. Maximum Ratings at 25°C unless otherwise noted

Parameter Symbol	symbol	STSB302L	STSB303L	STSB304L	STSB305L	STSB306L	Unit
device marking code		STSB302L	STSB303L	STSB304L	STSB305L	STSB306L	
Maximum repetitive peak reverse voltage	V _{RRM}	100	200	400	600	800	V
Maximum RMS voltage	V _{RMS}	70	140	280	420	560	V
Maximum DC blocking voltage	V _{DC}	100	200	400	600	800	V
Maximum average forward rectified current	IF(AV)	3.0					A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	140.0					A
Rating for fusing (t<8.3ms)	I ² t	60.0					A ² sec
Typical thermal resistance (Note 1)	RθJC	15					°C/W
	RθJA	75					
Operating junction and storage temperature range	TJ, TSTG	-55 to +150					°C

Electrical Characteristics at 25°C unless otherwise noted

Parameter Symbol	symbol	STSB302L	STSB303L	STSB304L	STSB305L	STSB306L	Unit
Maximum Instantaneous Forward Voltage (IF =3.0Amps, TJ = 25°C)	VF	0.92					V
Maximum DC reverse current at rated DC blocking voltage TA= 25°C TA =125°C	IR	5 500					μA
Typical junction capacitance at 4.0V, 1MHz	CJ	32.0					PF

NOTES:

1. 16.0mm² (.013mm thick) land areas

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2. Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

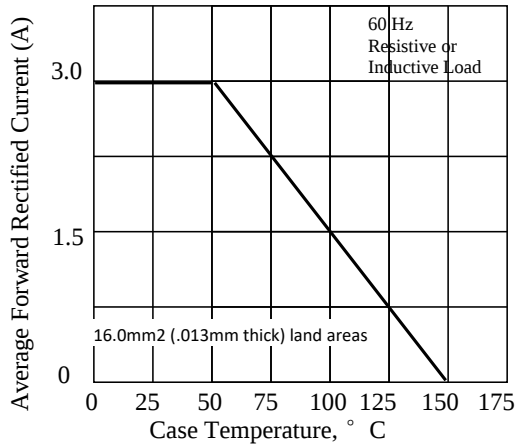


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

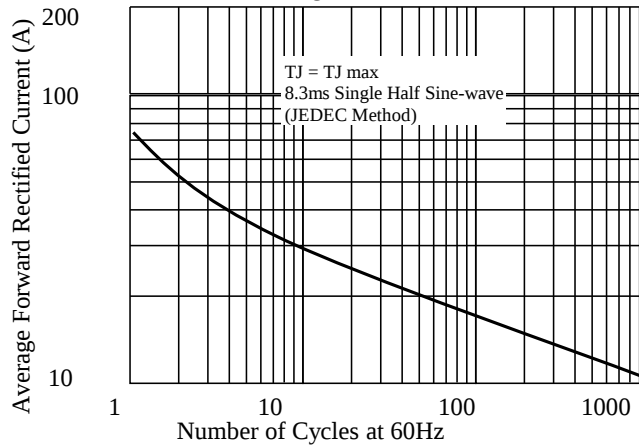


Fig 3. - Typical Instantaneous Forward Characteristics

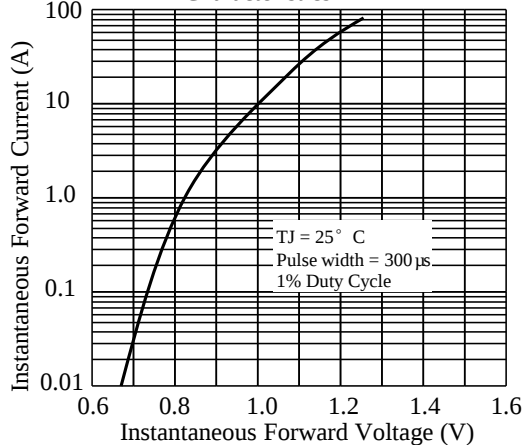


Fig 4. - Typical Reverse Characteristics

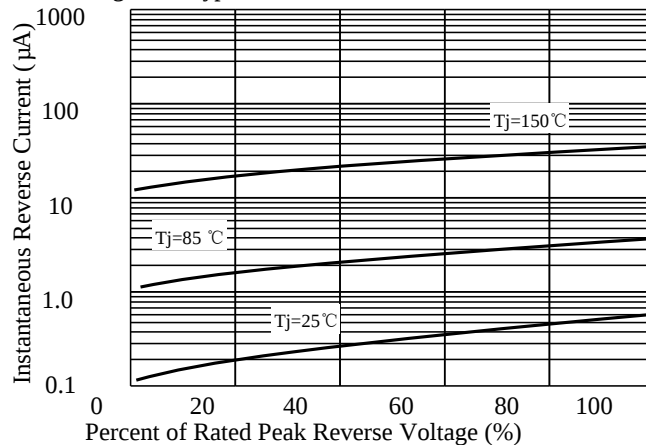


Fig 5. - typical transient thermal impedance

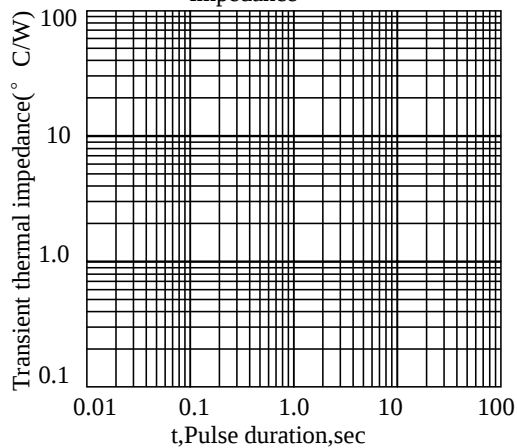
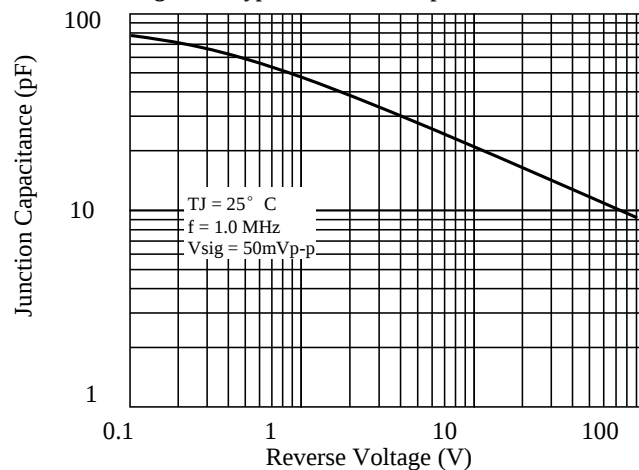


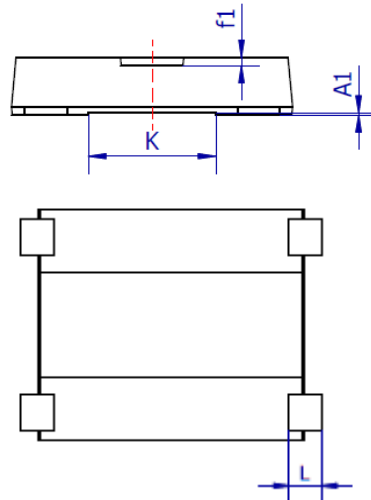
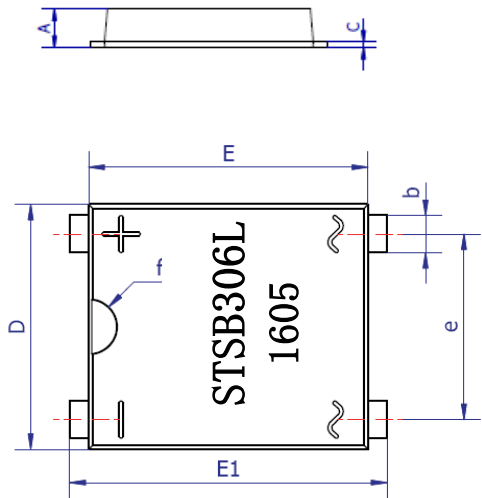
Fig 6. - Typical Junction Capacitance



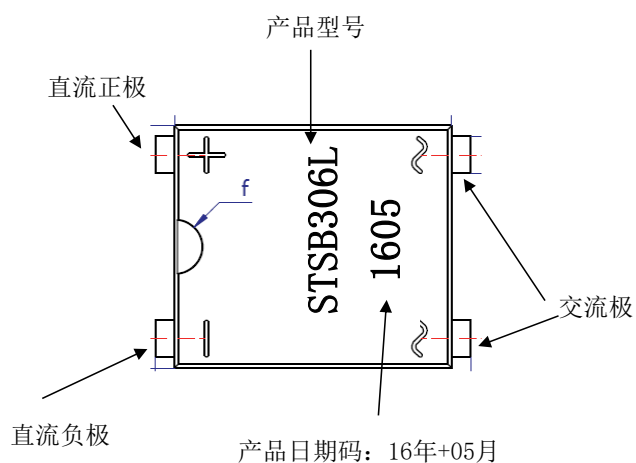
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3. dimension:

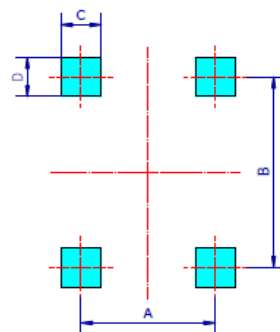
STSB



unit:mm		
Dim	MIN	MAX
A	1.20	1.60
b	0.90	1.10
C	0.15	0.25
D	6.35	6.85
E	7.05	7.55
E1	8.05	8.55
e	4.75	5.25
f	TYP	R0.75
f1	TYP	0.2
A1	TYP	0.5
K	2.75	3.25
L	0.75	1.05



Mounting PAD layout



产品型号说明: ST--小型薄形管体; S---贴片;
B---桥; 30--IF=3.0A; 6--VR=800V; L---LOW VF;

Dim	MIN	MAX
A	4.75	5.25
B	7.15	7.65
C	1.50	2.50
D	1.50	2.50

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4、版式次更新记录

版次	更新记录	更新作者	更新日期
1	第一版	谭志伟	2016.06.13