

# STSB302 thru STSB307

## low Profile Surface Mount Single Phase Bridge Rectifiers

### Reverse Voltage 100 to1000V 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



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

#### Typical Applications

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

#### 1. Maximum Ratings at 25°C unless otherwise noted

Parameter Symbol	symbol	STSB302	STSB303	STSB304	STSB305	STSB306	STSB307	Unit
device marking code		STSB302	STSB303	STSB304	STSB305	STSB306	STSB307	
Maximum repetitive peak reverse voltage	$V_{RRM}$	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	100	200	400	600	800	1000	V
Maximum average forward rectified current	$I_F(AV)$	3.0						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	120						A
Rating for fusing ( $t < 8.3ms$ )	$I^2t$	60						A <sup>2</sup> sec
Typical thermal resistance (Note 1)	R $\theta$ JC	15						°C/W
	R $\theta$ JA	75						
Operating junction and storage temperature range	TJ, TSTG	-55 to +150						°C

#### Electrical Characteristics at 25°C unless otherwise noted

Parameter Symbol	symbol	STSB302	STSB303	STSB304	STSB305	STSB306	STSB307	Unit
Maximum Instantaneous Forward Voltage (IF =3.0Amps, TJ = 25°C)	$V_F$	1.05						V
Maximum DC reverse current at rated DC blocking voltage	IR							$\mu$ A
Typical junction capacitance at 4.0V, 1MHz	CJ	32						PF

#### NOTES:

1. 16.0mm<sup>2</sup> (.013mm thick) land areas

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## 2. Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

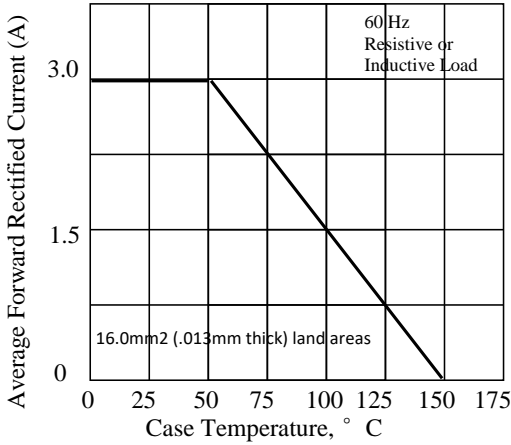


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

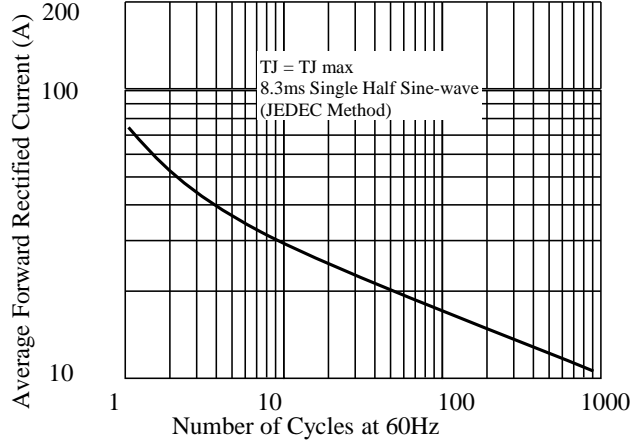


Fig. 3 - Typical Instantaneous Forward Characteristics

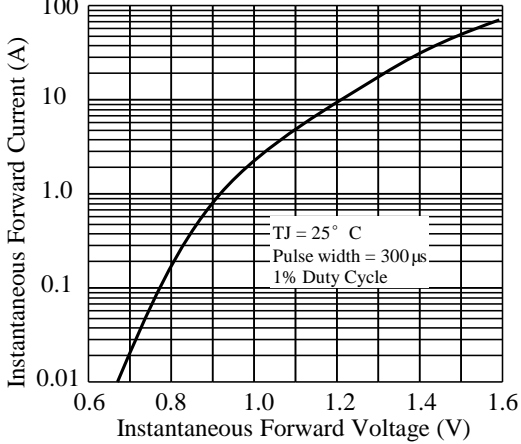


Fig. 4 - Typical Reverse Characteristics

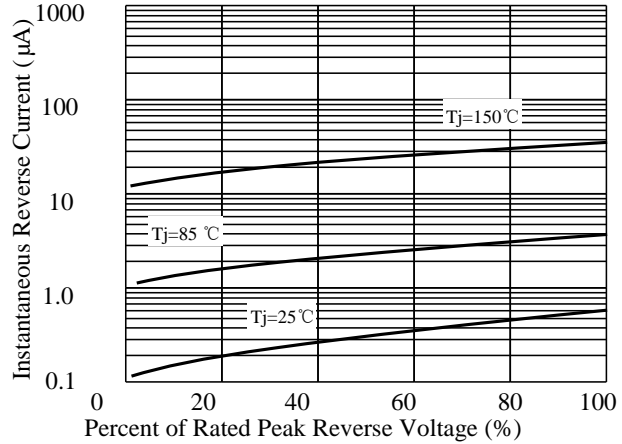


Fig. 5 - typical transient thermal impedance

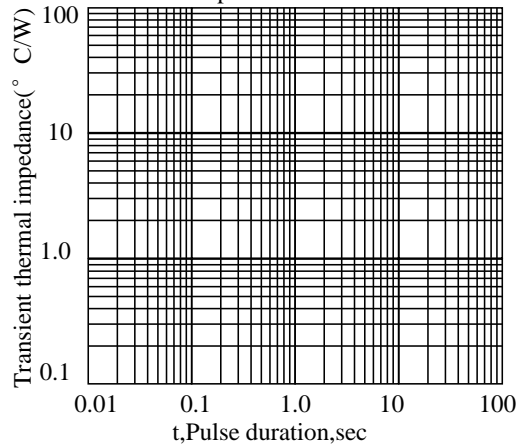
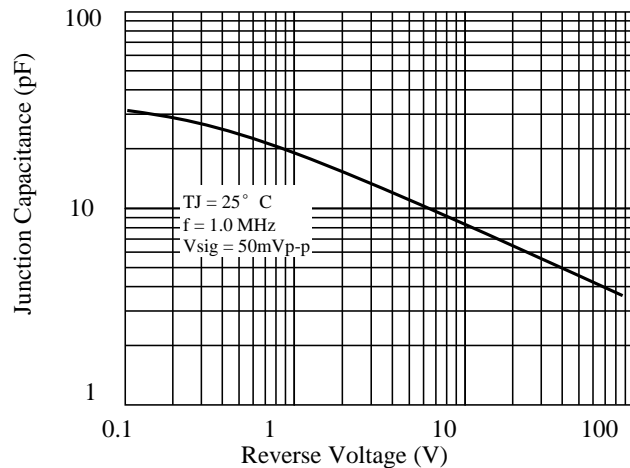


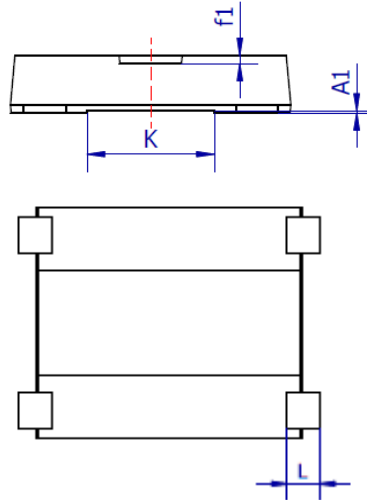
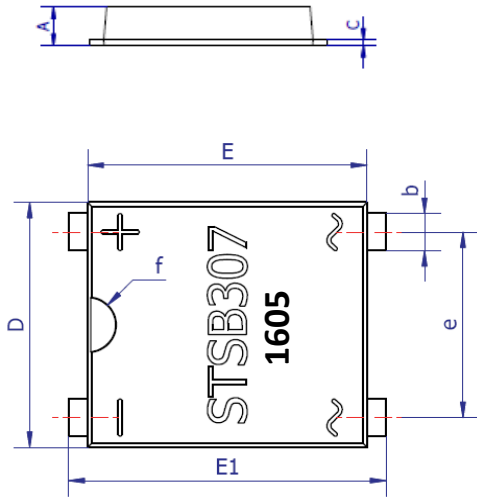
Fig. 6 - Typical Junction Capacitance



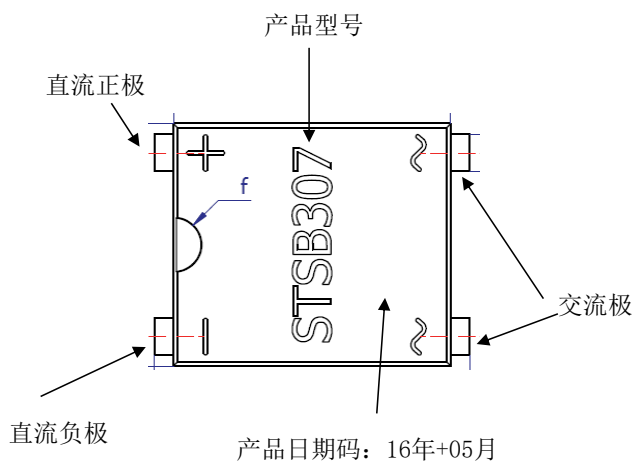
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### 3. dimension:

### STSB

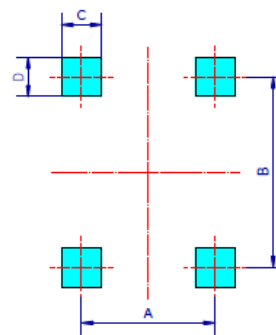


Dim	unit:mm	
	MIN	MAX
A	1.20	1.60
b	0.90	1.10
C	0.15	0.25
D	6.35	6.85
E	7.05	7.55
E1	8.05	8.55
e	4.75	5.25
f	TYP	R0.75
f1	TYP	0.2
A1	TYP	0.5
K	2.75	3.25
L	0.75	1.05



1605

### 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;7--VR=1000V;

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

## STSB302 thru STSB307

### 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

单击下面可查看定价，库存，交付和生命周期等信息

[>>LRC\(乐山无线电\)](#)