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## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

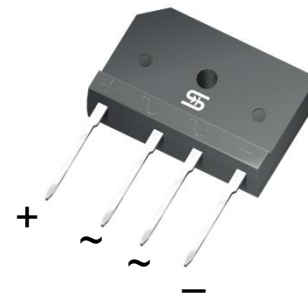
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



## 25A, 600V - 800V Low VF- Low Noise Single-Phase Single In-Line Bridge Rectifiers

### FEATURES

- Low Forward drop enhance the efficiency
- Oxide Planar chip junction
- High surge current capability
- UL Recognized File # E-326243
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21



**TS-6P**



### TYPICAL APPLICATIONS

General purpose use in AC/DC bridge full wave rectification. Especially for high efficiency desktop, telecom, server, white goods, home appliances, TV game console SMPS.

### MECHANICAL DATA

**Case:** TS-6P

Molding compound, UL flammability classification rating 94V-0

Part no. with suffix "H" means AEC-Q101 qualified

Packing code with suffix "G" means green compound (halogen-free)

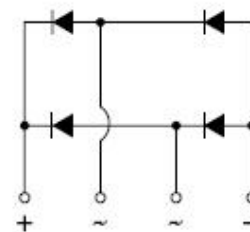
**Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test

**Polarity:** Polarity as marked on the body

**Mounting torque:** Maximum 0.8Nm; 0.5Nm is recommended

**Weight:** 7.15g (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)							
PARAMETER	SYMBOL	TS25PL05G		TS25PL06G		UNIT	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	600		800		V	
Maximum RMS voltage	V <sub>RMS</sub>	420		560		V	
Maximum DC blocking voltage	V <sub>DC</sub>	600		800		V	
Maximum average forward rectified current	I <sub>F(AV)</sub>	25				A	
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	300				A	
Rating for fusing (t<8.3ms)	I <sup>2</sup> t	373				A <sup>2</sup> s	
Peak forward surge current, 1 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	900				A	
Instantaneous forward voltage (Note 1) I <sub>F</sub> = 12.5A	V <sub>F</sub>	T <sub>J</sub> =25 °C	TYP	MAX	TYP	MAX	V
		T <sub>J</sub> =125 °C	0.87	0.92	0.92	0.95	
			0.75	-	-	-	
Maximum reverse current @ rated V <sub>R</sub>	I <sub>R</sub>	T <sub>J</sub> =25°C	10				μA
		T <sub>J</sub> =125°C	150				
Typical thermal resistance	R <sub>θJC</sub>	2				°C/W	
	R <sub>θJA</sub>	5.5					
Operating junction temperature range	T <sub>J</sub>	- 55 to +150				°C	
Storage temperature range	T <sub>STG</sub>	- 55 to +150				°C	

Note 1: Pulse test with PW=300μs, 1% duty cycle

**ORDERING INFORMATION**

PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX (*)	PACKAGE	PACKING
TS25PL0xG (Note 1)	H	D2	G	TS-6P	15 / TUBE
		X0		TS-6P	Forming

Note 1: "x" defines voltage from 600V (TS25PL05G) to 800V (TS25PL06G)

\*: Optional available

**EXAMPLE**

PREFERRED PART NO.	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
TS25PL05GHD2G	TS25PL05G	H	D2	G	AEC-Q101 qualified Green compound

**RATINGS AND CHARACTERISTICS CURVES**

( $T_A=25^\circ\text{C}$  unless otherwise noted)

FIG.1 MAXIMUM DERATING CURVE FOR OUTPUT CURRENT

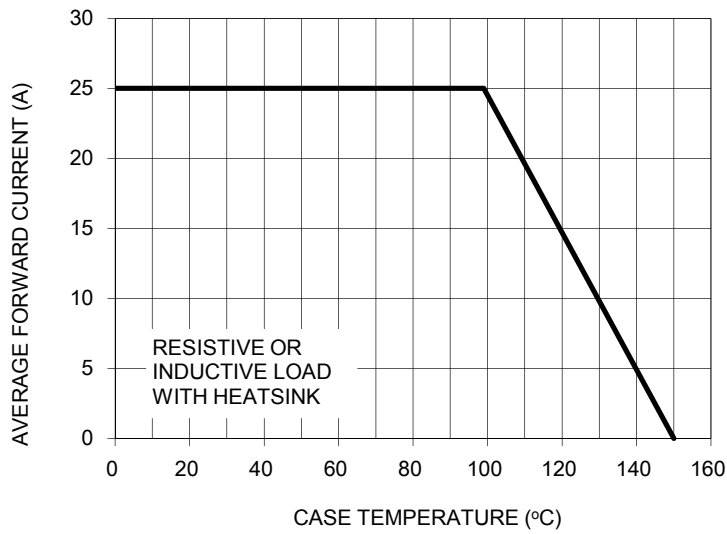


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

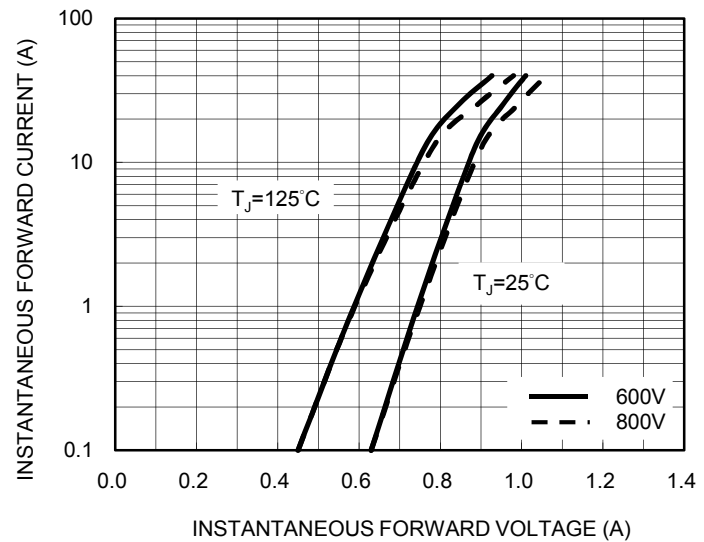


FIG. 3 MAXIMUM SURGE CURRENT

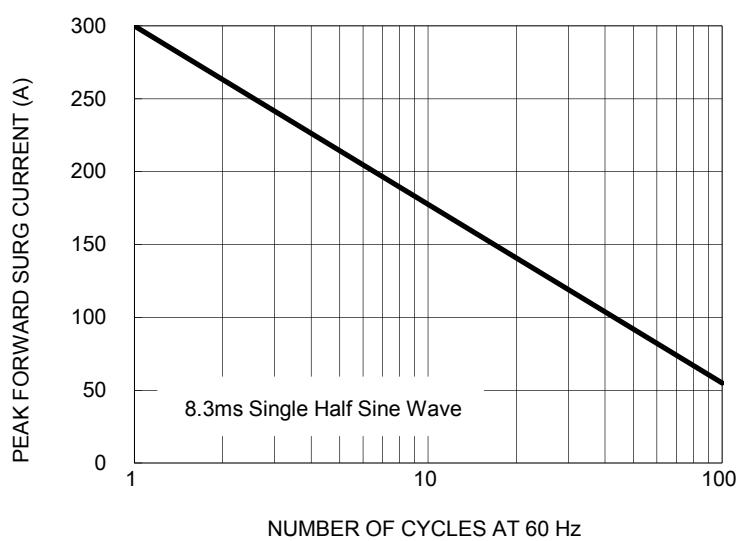


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

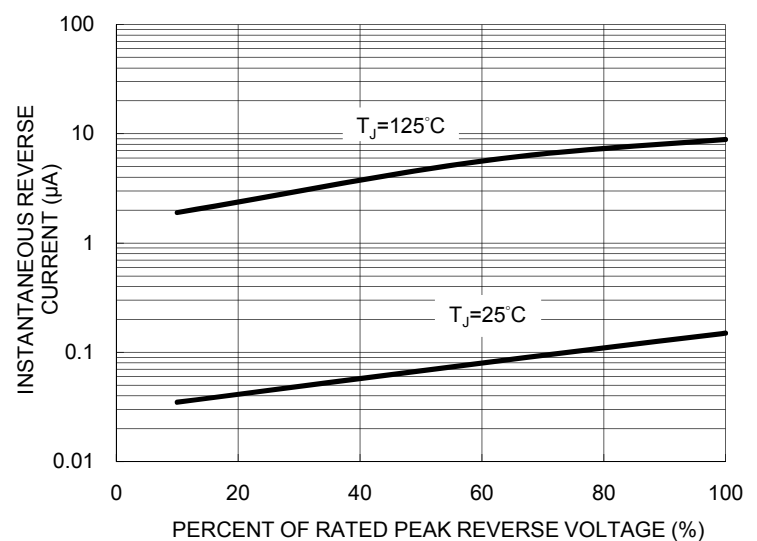
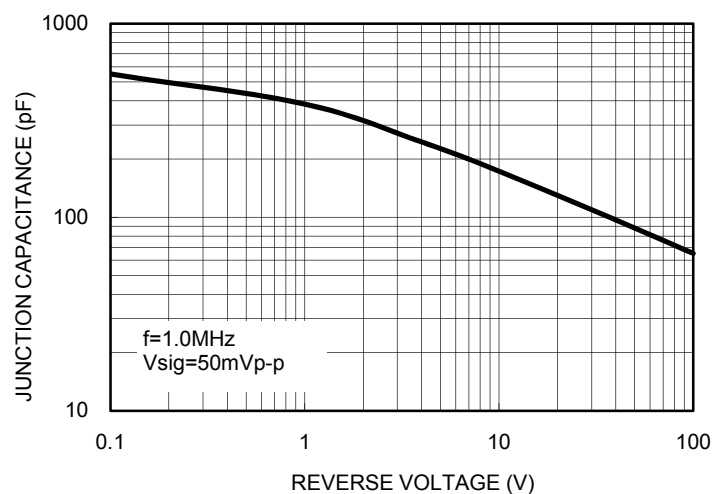
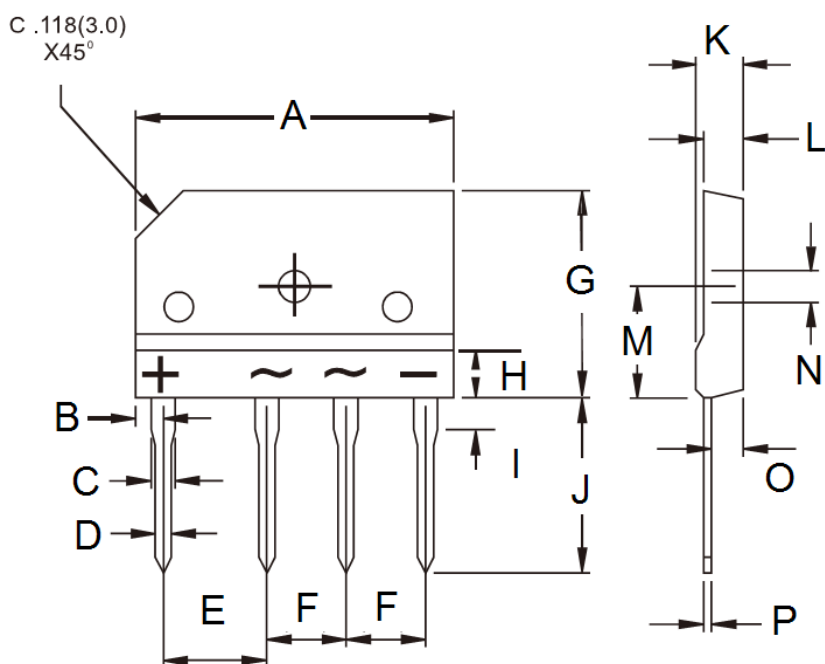


FIG. 5 TYPICAL JUNCTION CAPACITANCE



**PACKAGE OUTLINE DIMENSIONS**  
**TS-6P**



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	29.70	30.30	1.169	1.193
B	2.30	2.70	0.091	0.106
C	2.00	2.40	0.079	0.094
D	0.90	1.10	0.035	0.043
E	9.80	10.20	0.386	0.402
F	7.30	7.70	0.287	0.303
G	19.70	20.30	0.776	0.799
H	-	4.80	-	0.189
I	3.80	4.20	0.150	0.165
J	17.00	18.00	0.669	0.709
K	4.40	4.80	0.173	0.189
L	3.40	3.80	0.134	0.150
M	10.80	11.20	0.425	0.441
N	3.10	3.40	0.122	0.134
O	2.50	2.90	0.098	0.114
P	0.65	0.75	0.026	0.030

**MARKING DIAGRAM**



- P/N = Specific Device Code
- G = Green Compound
- YWW = Date Code
- F = Factory Code

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