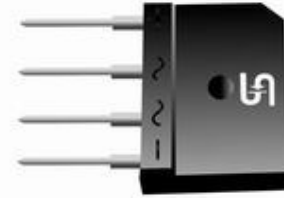


## Low VF- Low Noise Single-Phase Single In-Line Bridge Rectifiers

### FEATURES

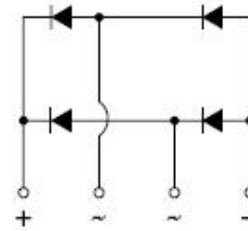
- Low Forward drop enhance the efficiency
- Oxide Planar chip junction
- High surge current capability
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



### 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.

**TS-6P**



### MECHANICAL DATA

**Case:** TS-6P

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - 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	TS15PL05G		UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	600		V
Maximum RMS voltage	V <sub>RMS</sub>	420		V
Maximum DC blocking voltage	V <sub>DC</sub>	600		V
Maximum average forward rectified current	I <sub>F(AV)</sub>	15		A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	200		A
Rating for fusing (t<8.3ms)	I <sup>2</sup> t	166		A <sup>2</sup> s
Peak forward surge current, 1 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	630		A
Instantaneous forward voltage (Note 1) I <sub>F</sub> = 7.5A	V <sub>F</sub>	TYP	MAX	V
		0.87	0.90	
		0.73	-	
Maximum DC reverse current at rated DC blocking voltage	I <sub>R</sub>	T <sub>J</sub> =25 °C	5	
		T <sub>J</sub> =125°C	150	
Typical thermal resistance	R <sub>θJC</sub>	2		°C/W
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.	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
TS15PL05G	C2	Suffix "G"	TS-6P	15 / TUBE
	X0		TS-6P	Forming
	D2		TS-6P	15 / TUBE (Auto)
	X2		TS-6P	Forming

EXAMPLE				
PREFERRED P/N	PART NO.	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
TS15PL05G C2	TS15PL05G	C2		
TS15PL05G C2G	TS15PL05G	C2	G	Green compound

**RATINGS AND CHARACTERISTICS CURVES**

(TA=25°C unless otherwise noted)

FIG. 1 MAXIMUM DERATING CURVE FOR OUTPUT CURRENT

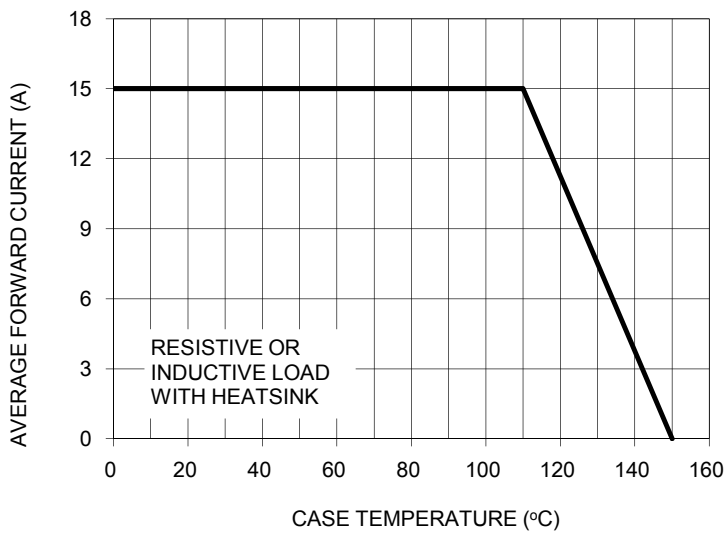


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

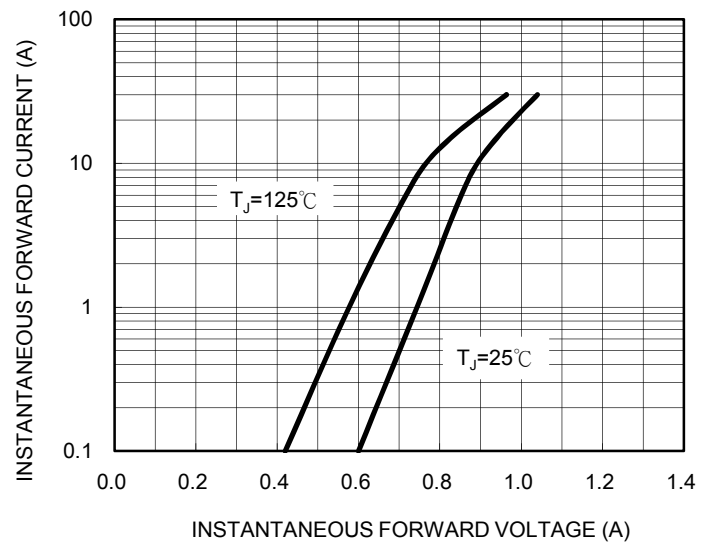


FIG. 3 MAXIMUM SURGE CURRENT

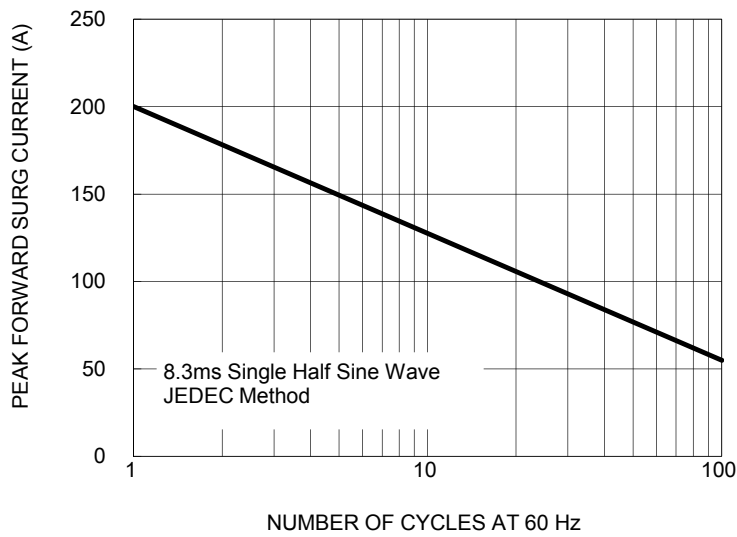


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

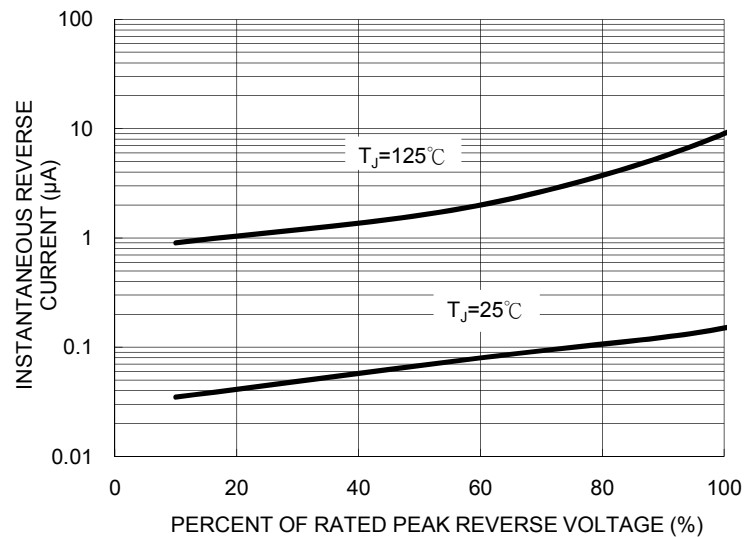
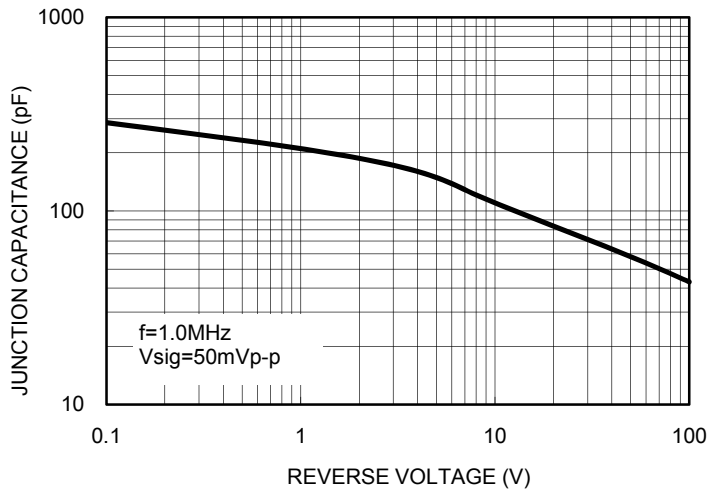
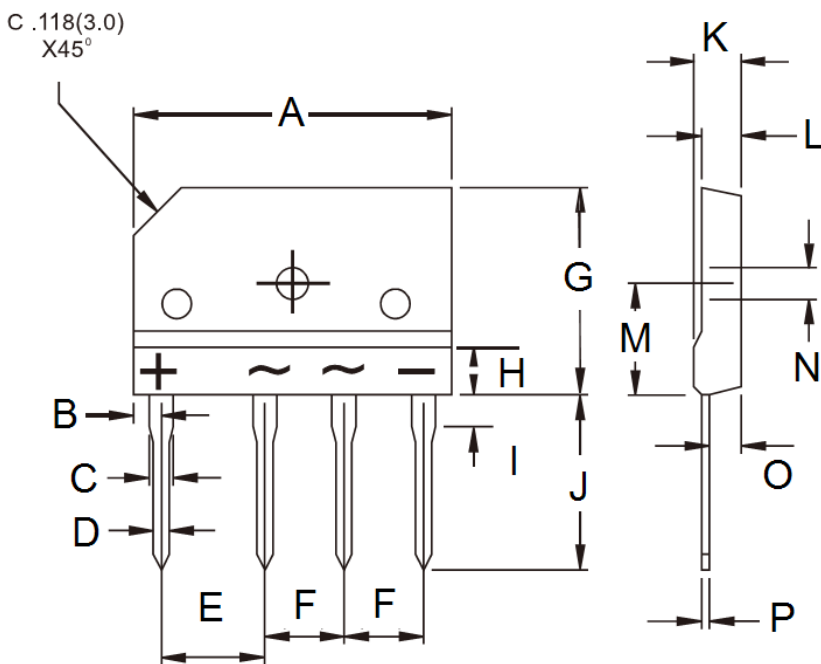


FIG. 5 TYPICAL JUNCTION CAPACITANCE



PACKAGE OUTLINE DIMENSIONS



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	0.60	0.70	0.024	0.028

MARKING DIAGRAM



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

## Notice

Specifications of the products displayed herein are subject to change without notice. TSC or anyone on its behalf, assumes no responsibility or liability for any errors inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in TSC's terms and conditions of sale for such products, TSC assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of TSC products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify TSC for any damages resulting from such improper use or sale.