

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

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)

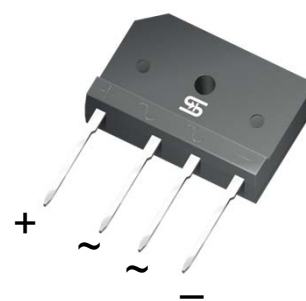
Terminal: Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test

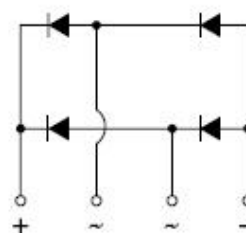
Polarity: Polarity as marked on the body

Mounting torque: Maximum 0.8Nm; 0.5Nm is recommended

Weight: 7.15g (approximately)



TS-6P



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

FIG.1 MAXIMUM DERATING CURVE FOR OUTPUT CURRENT

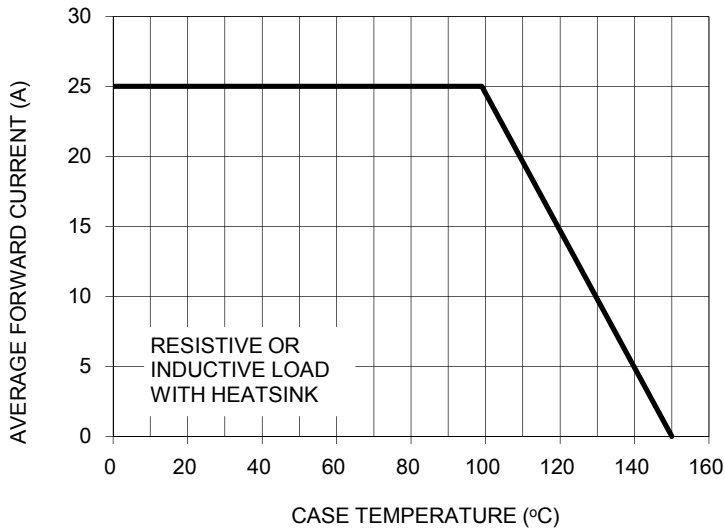


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

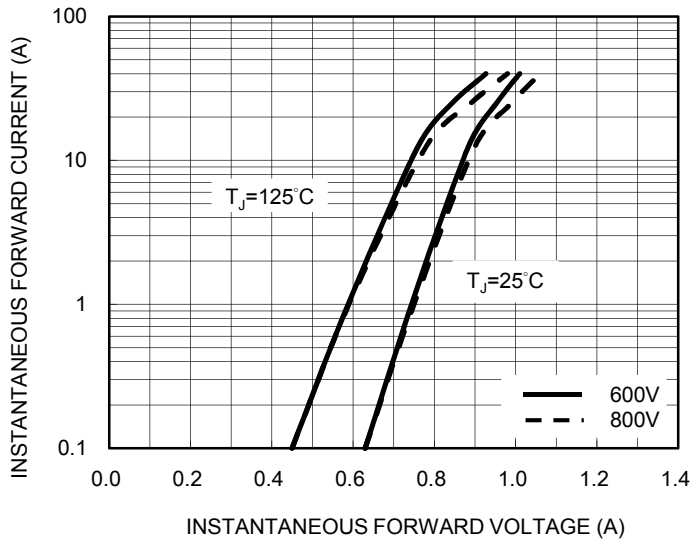


FIG. 3 MAXIMUM SURGE CURRENT

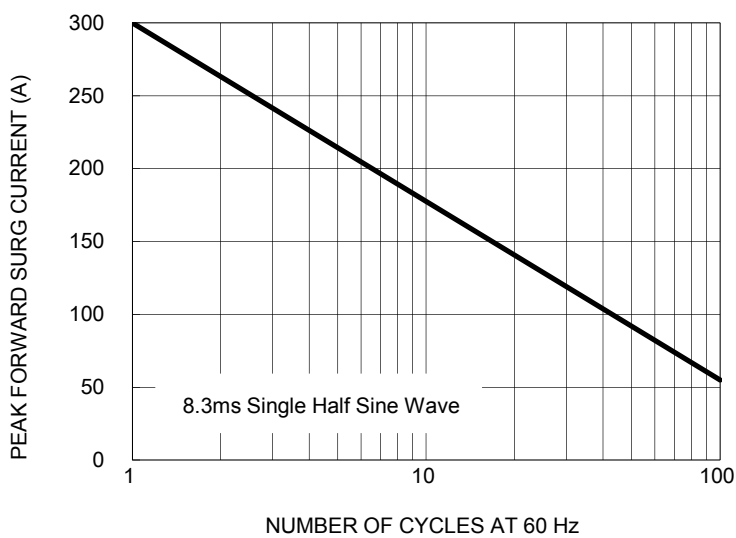


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

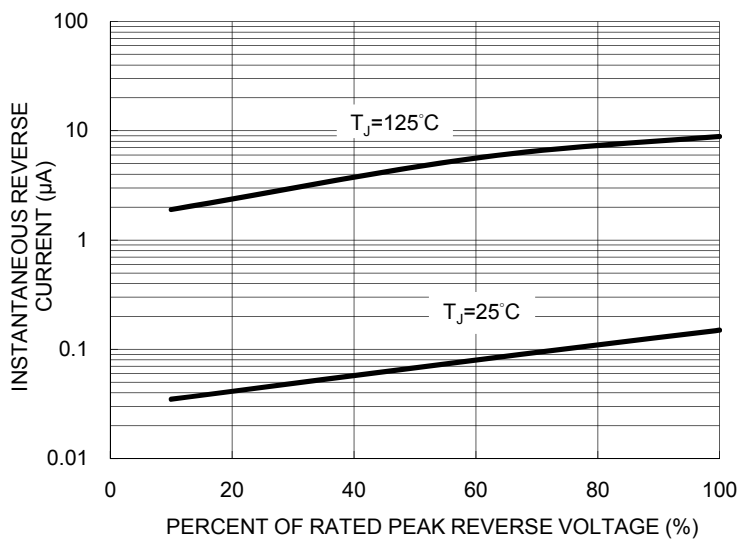
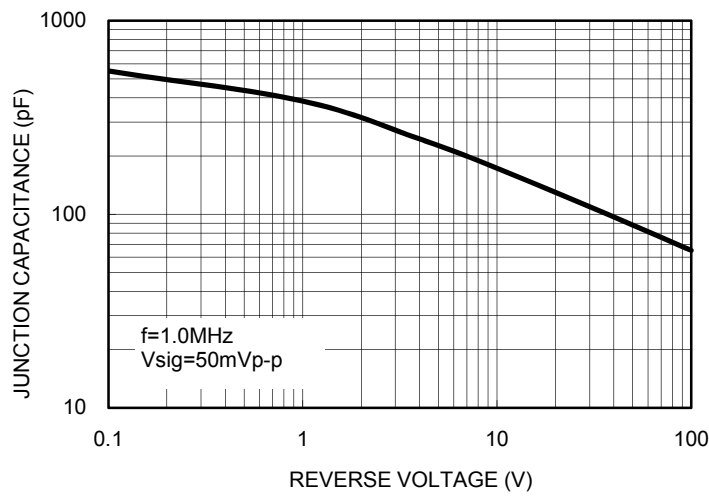
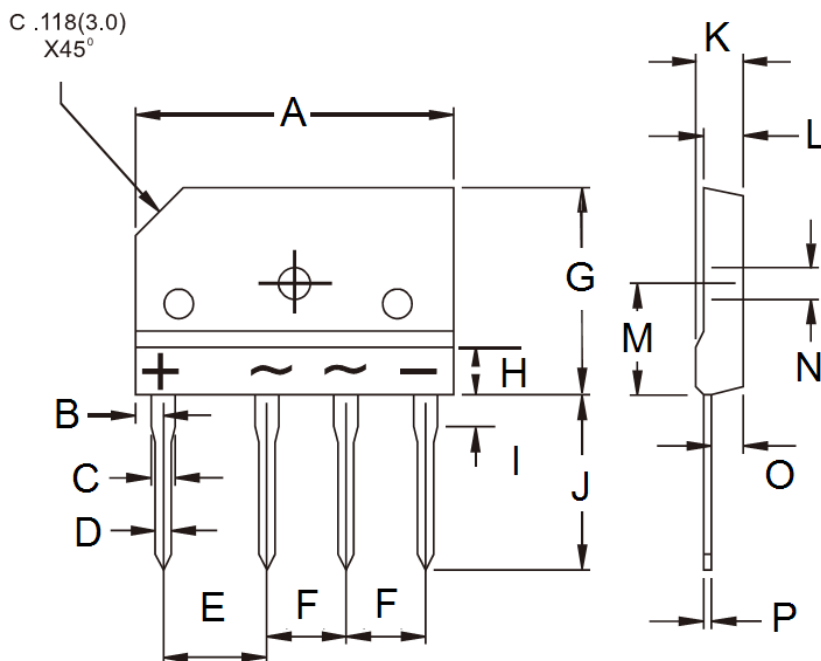


FIG. 5 TYPICAL JUNCTION CAPACITANCE



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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