25A, 600V - 1000V Standard Bridge Rectifier

FEATURES

- Glass passivated chip junction
- Ideal for printed circuit board
- Typical IR less than 0.1μA
- High surge current capability
- UL Recognized File # E-326243
- RoHS Compliant
- Halogen-free according to IEC 61249-2-21

APPLICATIONS

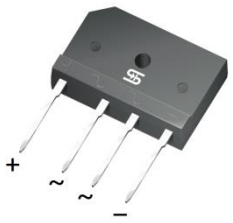
- Switching mode power supply (SMPS)
- Adapters
- Lighting application

MECHANICAL DATA

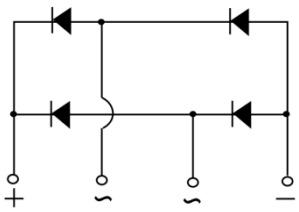
- Case: TS-6P
- Molding compound meets UL 94V-0 flammability rating
- Terminal: Matte tin plated leads, solderable per J-STD-002
- Mounting torque: 0.92 N·m maximum
- Polarity: As marked
- Weight: 6.50g (approximately)

KEY PARAMETERS		
PARAMETER	**VALUE**	**UNIT**
I_F	25	A
V_{RRM}	600 - 1000	V
I_{FSM}	350	A
$T_{J\ MAX}$	150	°C
Package	TS-6P	
Configuration	Quad	

Pb-Free RoHS COMPLIANT HALOGEN FREE



TS-6P



ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)					
PARAMETER	**SYMBOL**	**TS25P05G-K**	**TS25P06G-K**	**TS25P07G-K**	**UNIT**
Marking code on the device		TS25P05G	TS25P06G	TS25P07G	
Repetitive peak reverse voltage	V_{RRM}	600	800	1000	V
Reverse voltage, total rms value	$V_{R(RMS)}$	420	560	700	V
Forward current	I_F	25			A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	350			A
Rating of fusing (t<8.3ms)	I^2t	508.37			A^2s
Junction temperature	T_J	- 55 to +150			°C
Storage temperature	T_{STG}	- 55 to +150			°C

THERMAL PERFORMANCE

PARAMETER	SYMBOL	TYP	UNIT
Junction-to-case thermal resistance	$R_{\Theta JC}$	1.3	°C/W

ELECTRICAL SPECIFICATIONS (T_A = 25°C unless otherwise noted)

PARAMETER	CONDITIONS	SYMBOL	TYP	MAX	UNIT
Forward voltage per diode(1)	I_F = 12.5A, T_J = 25°C	V_F	-	1.1	V
	I_F = 12.5A, T_J = 125°C		-	1.0	V
Reverse current @ rated V_R per diode(2)	T_J = 25°C	I_R	-	10	μA
	T_J = 125°C		-	500	μA
Junction capacitance per diode	1MHz, V_R = 4.0V	C_J	119	-	pF

Notes:

1. Pulse test with PW = 0.3ms
2. Pulse test with PW = 30ms

ORDERING INFORMATION

ORDERING CODE(1)	PACKAGE	PACKING
TS25PxG-K	TS-6P	15 / Tube

Notes:

1. "x" defines voltage from 600V(TS25P05G-K) to 1000V(TS25P07G-K)

CHARACTERISTICS CURVES

(T_A = 25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

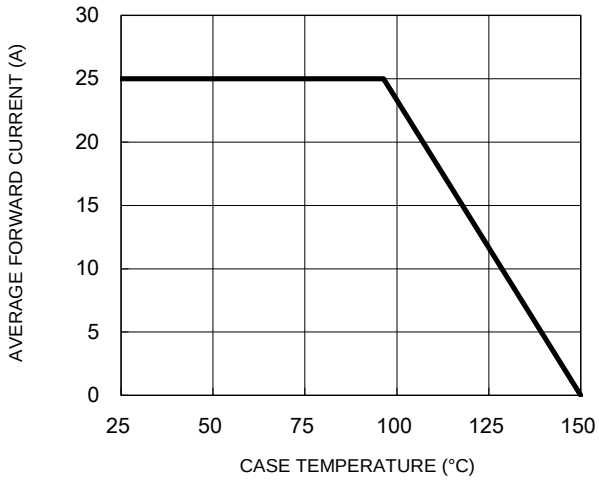


Fig.2 Typical Junction Capacitance

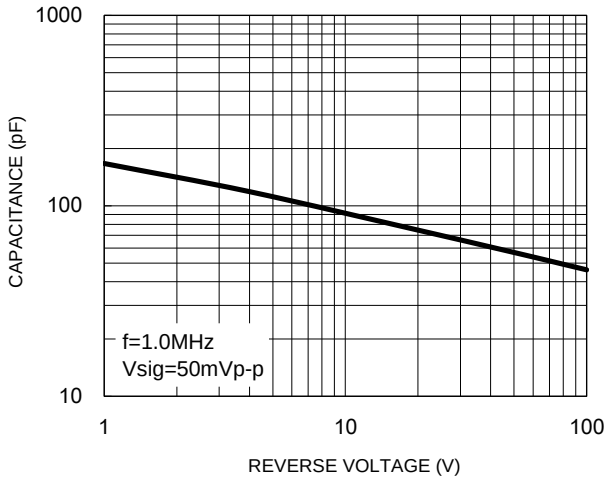


Fig.3 Typical Reverse Characteristics

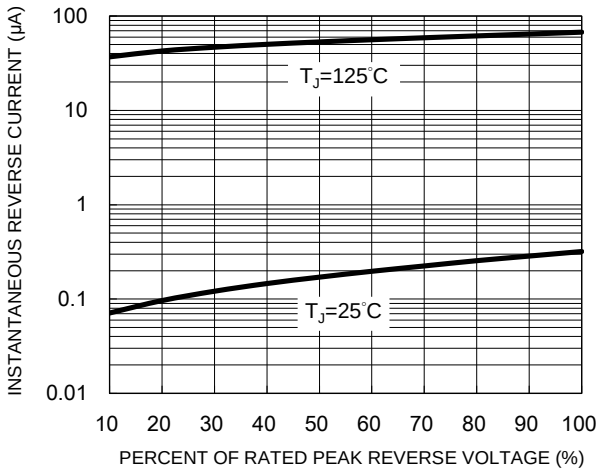
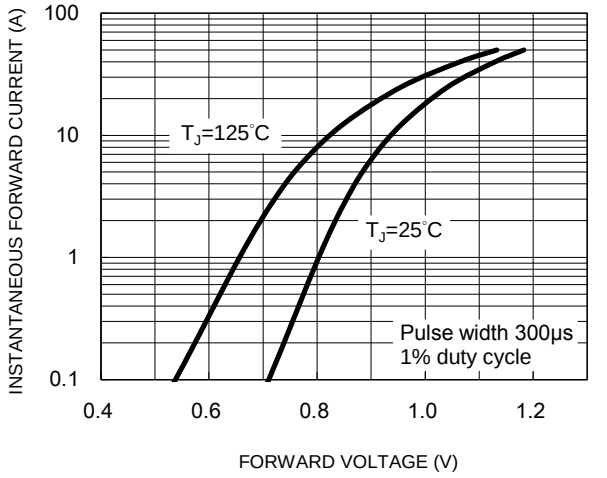
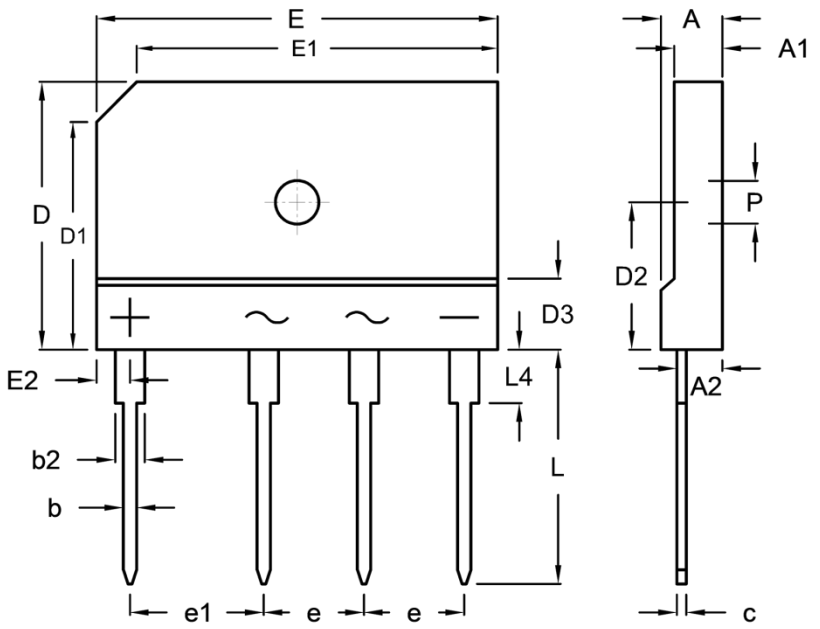


Fig.4 Typical Forward Characteristics



PACKAGE OUTLINE DIMENSIONS

TS-6P



DIM.	Unit (mm)		Unit (inch)	
	Min.	Max.	Min.	Max.
A	4.40	4.80	0.173	0.189
A1	3.40	3.80	0.134	0.150
A2	3.10	3.70	0.122	0.146
b	0.90	1.10	0.035	0.043
b2	2.00	2.40	0.079	0.094
c	0.60	0.80	0.024	0.031
D	19.70	20.30	0.776	0.799
D1	16.50	17.50	0.650	0.689
D2	10.80	11.20	0.425	0.441
D3	4.80	5.80	0.189	0.228
E	29.70	30.30	1.169	1.193
E1	26.50	27.50	1.043	1.083
E2	2.30	2.70	0.091	0.106
e	7.30	7.70	0.287	0.303
e1	9.80	10.20	0.386	0.402
L	17.00	18.00	0.669	0.709
L4	3.80	4.20	0.150	0.165
P	3.10	3.40	0.122	0.134

MARKING DIAGRAM

P/N = Marking Code
G = Green Compound
YWW = Date Code
F = Factory Code

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