

15A, 600V - 1000V Standard Bridge Rectifier

FEATURES

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

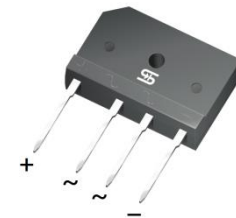
APPLICATIONS

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

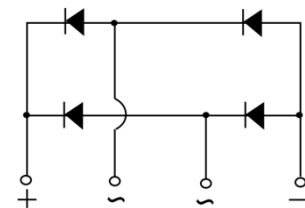
MECHANICAL DATA

- 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	15	A
V_{RRM}	600 - 1000	V
I_{FSM}	240	A
$T_{J\ MAX}$	150	°C
Package	TS-6P	
Configuration	Quad	



TS-6P



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

PARAMETER	SYMBOL	TS15P05G-K	TS15P06G-K	TS15P07G-K	UNIT
Marking code on the device		TS15P05G	TS15P06G	TS15P07G	
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	15			A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	240			A
Rating of fusing ($t < 8.3\text{ms}$)	I^2t	239.04			A ² s
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 ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	SYMBOL	TYP	MAX	UNIT
Forward voltage per diode ⁽¹⁾	$I_F = 7.5\text{A}, T_J = 25^\circ\text{C}$	V_F	-	1.0	V
	$I_F = 7.5\text{A}, T_J = 125^\circ\text{C}$		-	0.9	V
Reverse current @ rated V_R per diode ⁽²⁾	$T_J = 25^\circ\text{C}$	I_R	-	10	μA
	$T_J = 125^\circ\text{C}$		-	500	μA
Junction capacitance per diode	1MHz, $V_R = 4.0\text{V}$	C_J	73	-	pF

Notes:

- Pulse test with $PW = 0.3\text{ms}$
- Pulse test with $PW = 30\text{ms}$

ORDERING INFORMATION

ORDERING CODE ⁽¹⁾	PACKAGE	PACKING
TS15PxG-K	TS-6P	15 / Tube

Notes:

- "x" defines voltage from 600V(TS15P05G-K) to 1000V(TS15P07G-K)

CHARACTERISTICS CURVES

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

Fig.1 Forward Current Derating Curve

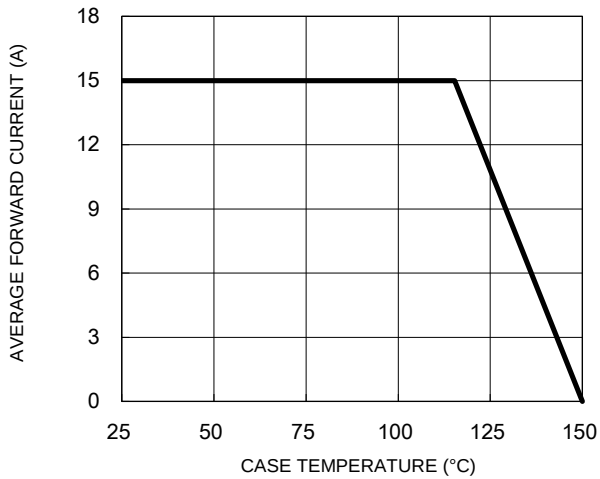


Fig.2 Typical Junction Capacitance

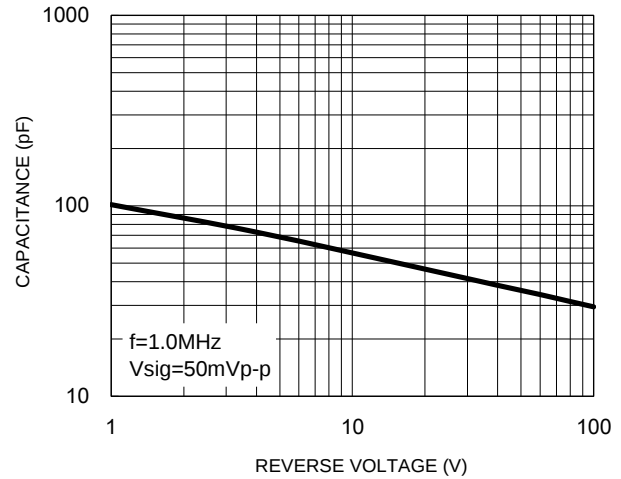


Fig.3 Typical Reverse Characteristics

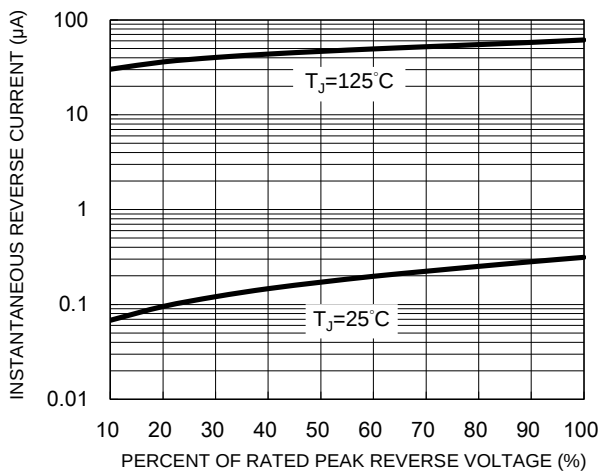
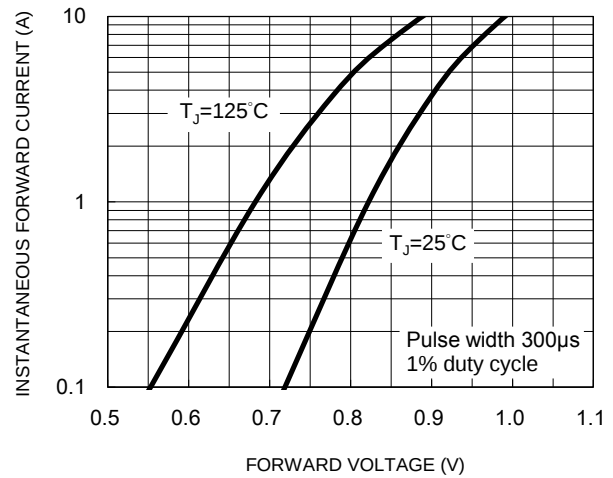
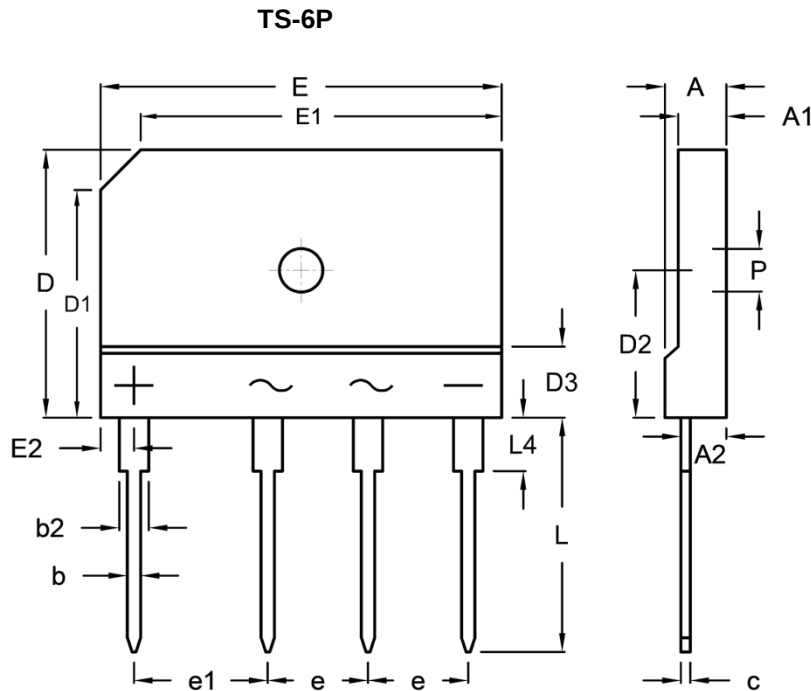


Fig.4 Typical Forward Characteristics



PACKAGE OUTLINE DIMENSIONS



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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