4A, 50V - 400V Glass Passivated Bridge Rectifiers

FEATURES

- Glass passivated junction
- Ideal for printed circuit board
- High case dielectric strength of $2000V_{RMS}$
- Reliable low cost construction
- 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

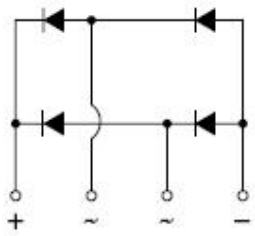
TS4B

Pb-Free

RoHS COMPLIANT

MECHANICAL DATA

Case: TS4B
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 2 whisker test
Polarity: Polarity as marked on the body
Mounting torque: 5 in-lbs maximum
Weight: 4 g (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)						
PARAMETER	SYMBOL	TSS4B 01G	TSS4B 02G	TSS4B 03G	TSS4B 04G	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	V
Maximum average forward rectified current	$I_{F(AV)}$	4				A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	150				A
Rating for fusing (t<8.3ms)	I^2t	93				A^2s
Maximum instantaneous forward voltage (Note 1) @ 4 A	V_F	0.98			1.3	V
Maximum reverse current @ rated V_R T_J=25°C T_J=125°C	I_R	5 500				μA
Maximum reverse recovery time (Note 2)	t_{rr}	35			50	ns
Typical thermal resistance	$R_{\theta JC}$	5.5				°C/W
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
Note 2: Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A.

ORDERING INFORMATION

PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX (*)	PACKAGE	PACKING
TSS4B0xG (Note 1)	H	C2	G	TS4B	20 / Tube
		X0		TS4B	Forming
		D2		TS4B	20 / Tube

Note 1: "x" defines voltage from 50V (TSS4B01G) to 400V (TSS4B04G)

*: Optional available

EXAMPLE

PREFERRED P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
TSS4B01GHC2G	TSS4B01G	H	C2	G	AEC-Q101 qualified Green compound

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

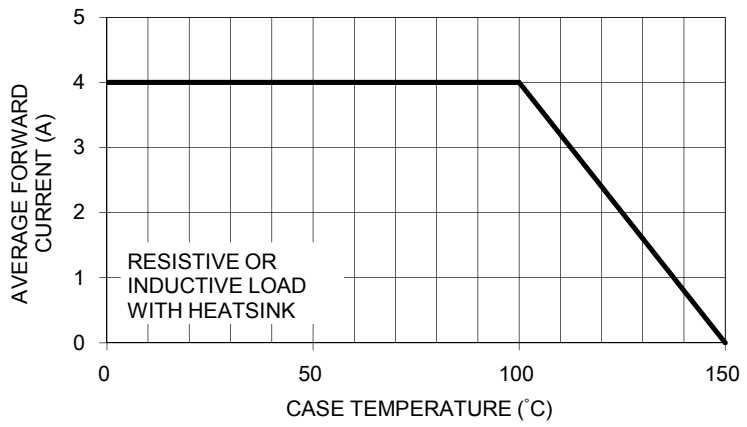


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

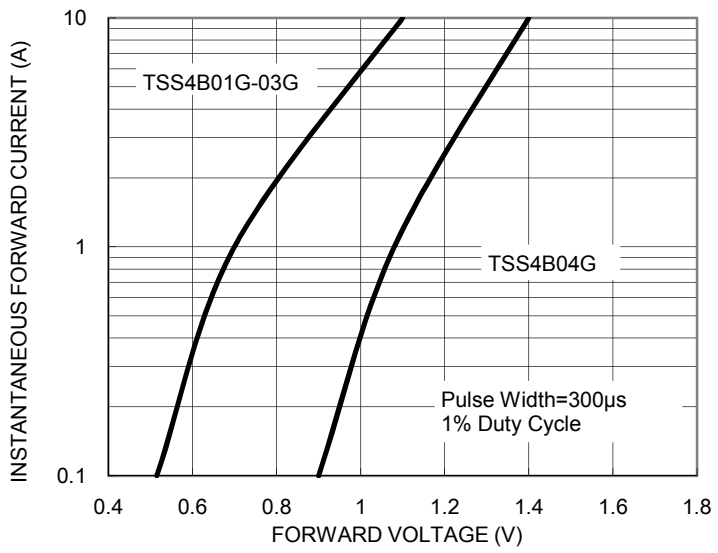


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

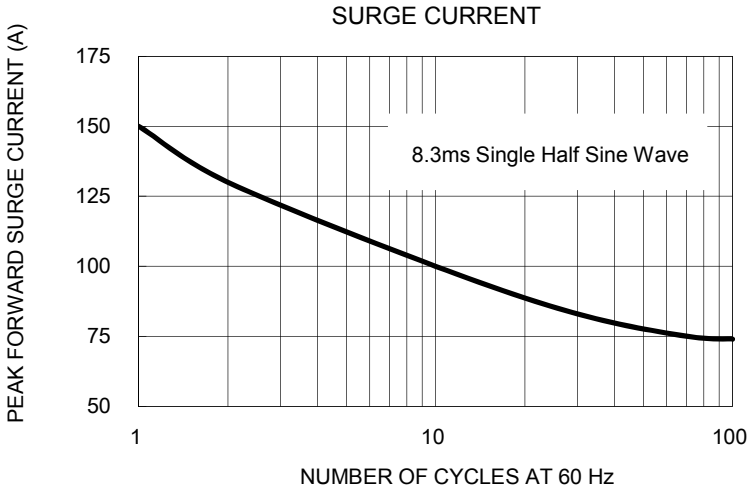


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

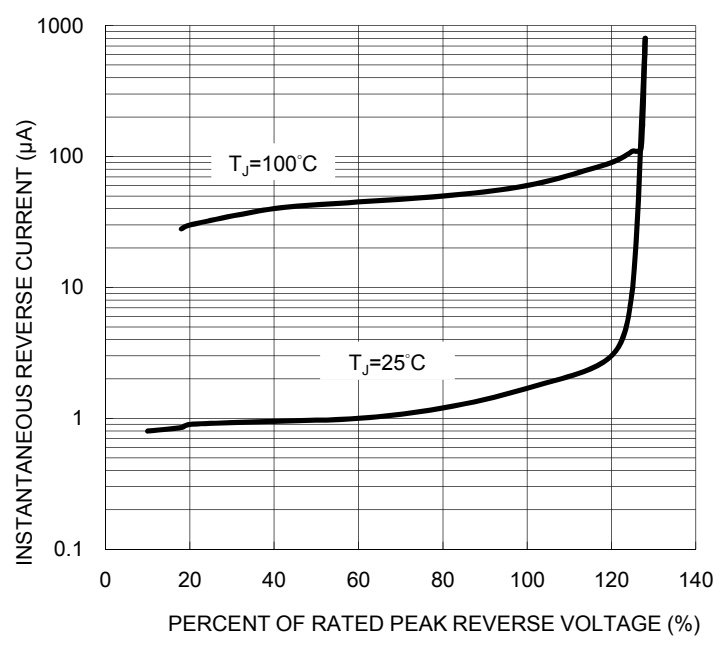


FIG. 5 TYPICAL JUNCTION CAPACITANCE

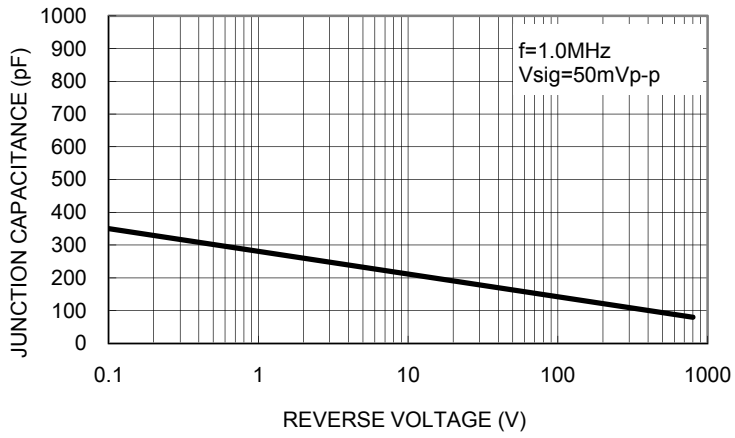
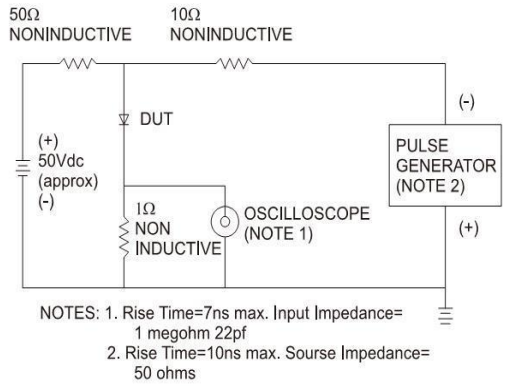
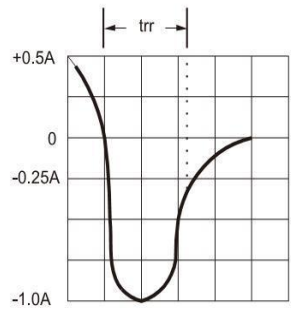


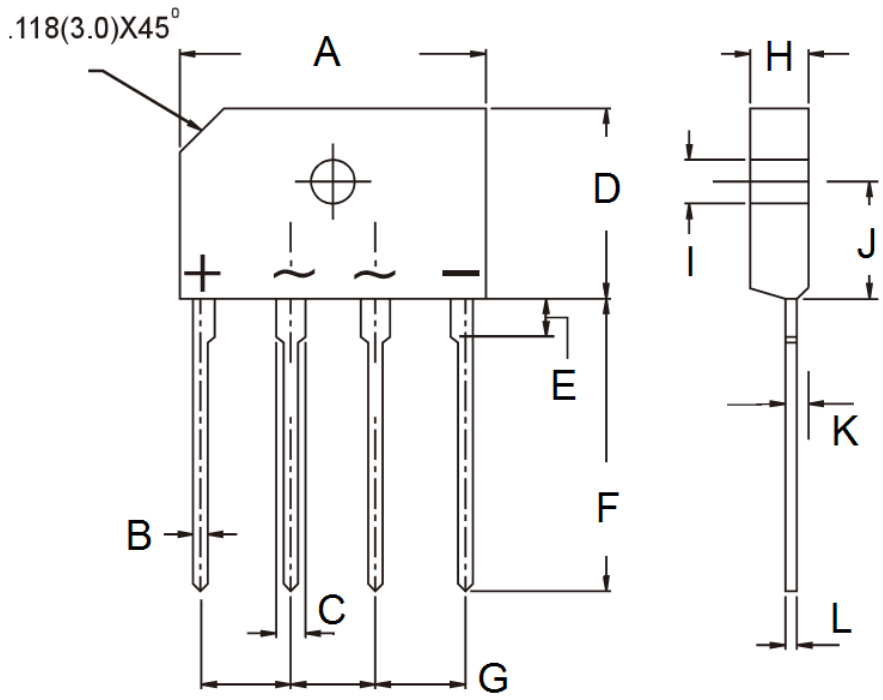
FIG.6 REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM





PACKAGE OUTLINE DIMENSIONS

TS4B



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	24.70	25.30	0.972	0.996
B	0.90	1.10	0.035	0.043
C	1.80	2.20	0.071	0.087
D	14.70	15.30	0.579	0.602
E	3.96	4.37	0.156	0.172
F	17.00	18.00	0.669	0.709
G	7.30	7.70	0.287	0.303
H	3.30	3.70	0.130	0.146
I	3.10	3.40	0.122	0.134
J	9.30	9.70	0.366	0.382
K	1.52	1.73	0.060	0.068
L	0.55	0.75	0.022	0.030

MARKING DIAGRAM

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

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