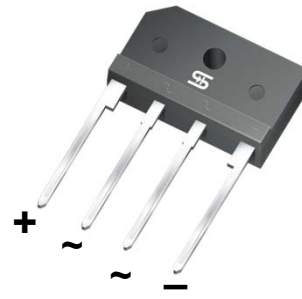


## 4A, 400V - 800V Glass Passivated Bridge Rectifiers

### FEATURES

- Glass passivated junction
- Ideal for printed circuit board
- Typical  $I_R$  less than 0.1 $\mu$ A
- 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



TS4K



### MECHANICAL DATA

**Case:** TS4K

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)

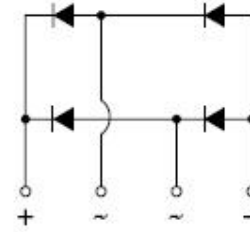
**Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

**Polarity:** Polarity as marked on the body

**Mounting torque:** 8.17 in-lbs maximum

**Weight:** 4 g (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ( $T_A=25^{\circ}\text{C}$ unless otherwise noted)					
PARAMETER	SYMBOL	TS4K40	TS4K60	TS4K80	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	400	600	800	V
Maximum RMS voltage	$V_{RMS}$	280	420	560	V
Maximum DC blocking voltage	$V_{DC}$	400	600	800	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	$I_{FSM}$	120			A
Rating for fusing ( $t < 8.3\text{ms}$ )	$I^2t$	60			$\text{A}^2\text{s}$
Maximum instantaneous forward voltage (Note 1)	$V_F$	$I_F=2\text{A}$	1.0		V
		$I_F=4\text{A}$	1.1		
Maximum reverse current @ rated $V_R$	$I_R$	$T_J=25^{\circ}\text{C}$	10		$\mu\text{A}$
		$T_J=125^{\circ}\text{C}$	500		
Typical thermal resistance	$R_{\theta JC}$	5.5			$^{\circ}\text{C/W}$
Operating junction temperature range	$T_J$	- 55 to +150			$^{\circ}\text{C}$
Storage temperature range	$T_{STG}$	- 55 to +150			$^{\circ}\text{C}$

Note 1: Pulse test with  $PW=300\mu\text{s}$ , 1% duty cycle

**ORDERING INFORMATION**

PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX (*)	PACKAGE	PACKING
TS4Kxx (Note 1)	H	D3	G	TS4K	20 / TUBE
		X0		TS4K	Forming

Note 1: "xx" defines voltage from 400V (TS4K40) to 800V (TS4K80)

\*: Optional available

**EXAMPLE**

PREFERRED P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
TS4K80HD3G	TS4K80	H	D3	G	AEC-Q101 qualified Green compound

**RATINGS AND CHARACTERISTICS CURVES**

(T<sub>A</sub>=25°C unless otherwise noted)

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

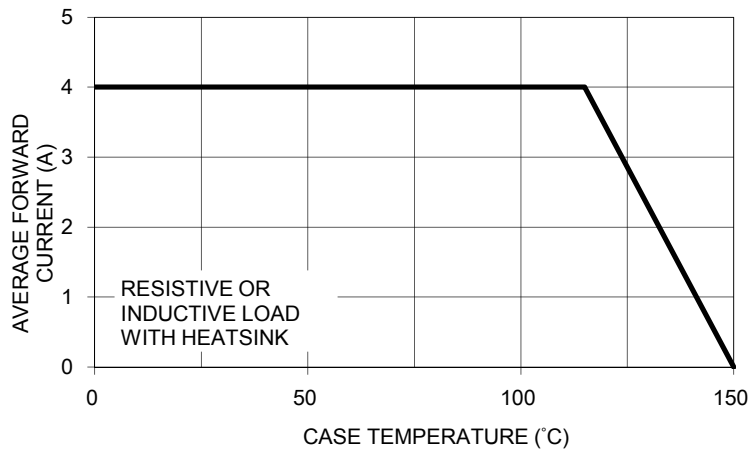


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

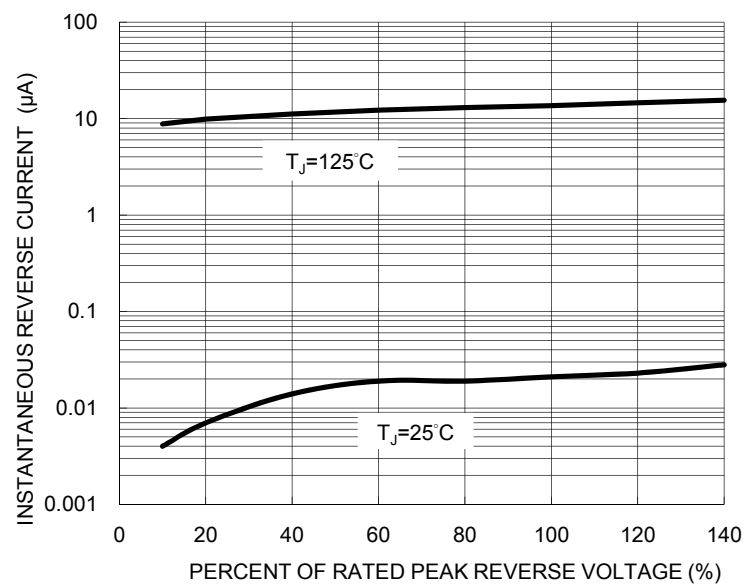


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

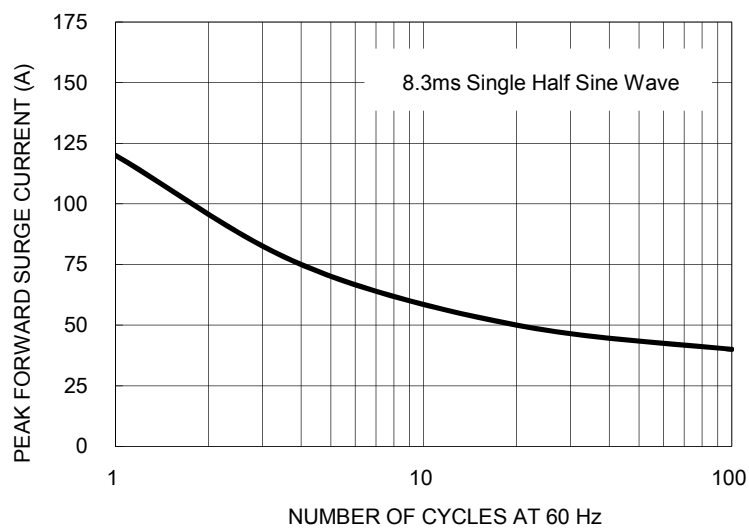


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

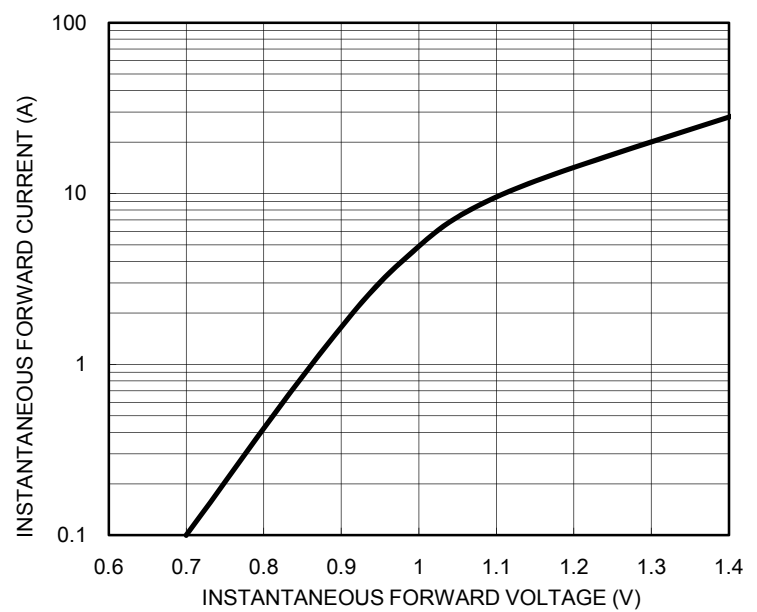
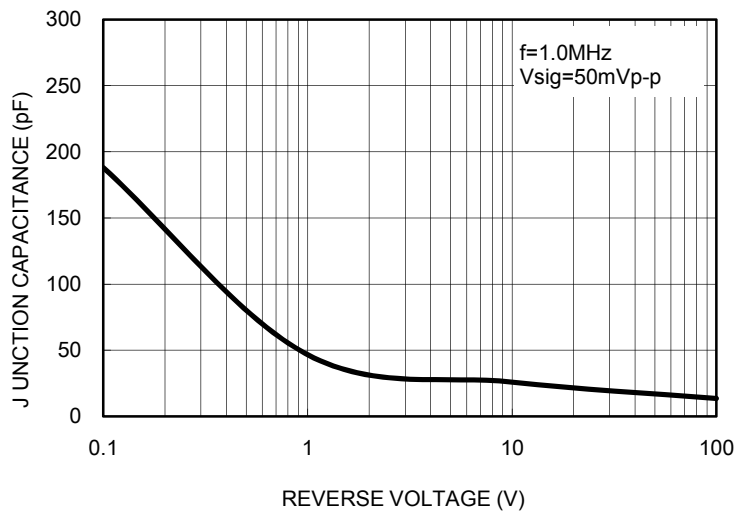
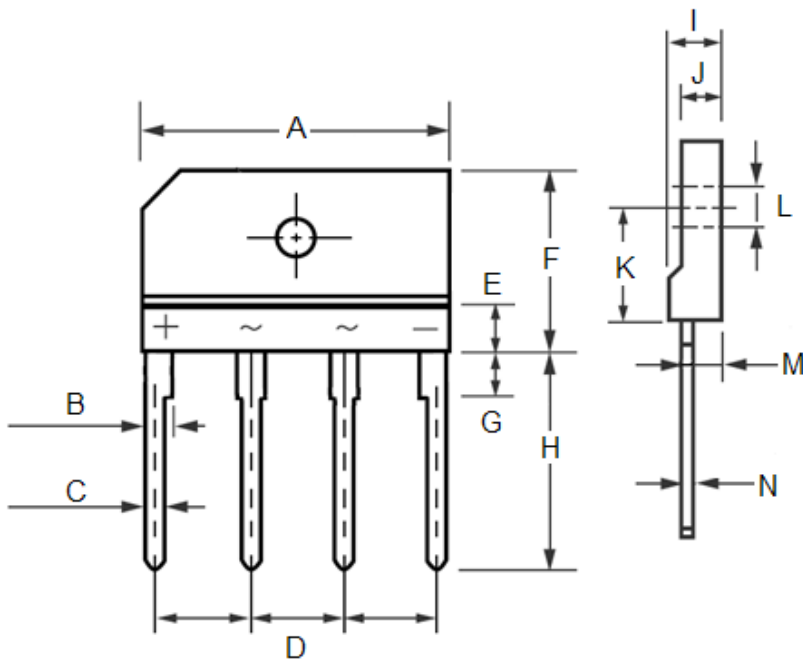


FIG. 5 TYPICAL JUNCTION CAPACITANCE



PACKAGE OUTLINE DIMENSIONS

**TS4K**



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	24.70	25.30	0.972	0.996
B	2.00	2.30	0.079	0.091
C	0.90	1.10	0.035	0.043
D	7.30	7.70	0.287	0.303
E	3.00	5.00	0.118	0.197
F	14.70	15.30	0.579	0.602
G	3.30	3.70	0.130	0.146
H	17.00	18.00	0.669	0.709
I	4.40	4.80	0.173	0.189
J	3.40	3.80	0.134	0.150
K	9.30	9.60	0.366	0.378
L	3.10	3.60	0.122	0.142
M	3.10	3.40	0.122	0.134
N	0.50	0.70	0.020	0.028

MARKING DIAGRAM



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

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