# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832 Email & Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





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

#### FEATURES

- Glass passivated junction
- Ideal for printed circuit board
- Typical  $I_{\mathsf{R}}$  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

#### MECHANICAL DATA

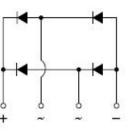
#### Case: TS4K

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 <sub>A</sub> =25°C unless otherwise noted)						
PARAMETER		SYMBOL	<b>TS4K40</b>	TS4K60	TS4K80	UNIT
Maximum repetitive peak reverse voltage		V <sub>RRM</sub>	400	600	800	V
Maximum RMS voltage		V <sub>RMS</sub>	280	420	560	V
Maximum DC blocking voltage		V <sub>DC</sub>	400	600	800	V
Maximum average forward rectified current		I <sub>F(AV)</sub>	4			А
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load		I <sub>FSM</sub>	120		A	
Rating for fusing (t<8.3ms)		l <sup>2</sup> t	60		A <sup>2</sup> s	
Maximum instantaneous forward voltag (Note 1)	e I <sub>F</sub> =2A I <sub>F</sub> =4A	V <sub>F</sub>	1.0 1.1			V
Maximum reverse current @ rated $V_R$	T <sub>J</sub> =25°C T <sub>J</sub> =125°C	I <sub>R</sub>	10 500		μA	
Typical thermal resistance		R <sub>eJC</sub>	5.5		°C/W	
Operating junction temperature range		TJ	- 55 to +150		°C	
Storage temperature range		T <sub>STG</sub>	- 55 to +150			°C

Note 1: Pulse test with PW=300µs, 1% duty cycle



Taiwan Semiconductor

#### ORDERING INFORMATION

PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX <sup>(*)</sup>	PACKAGE	PACKING
TS4Kxx	Н	D3	G	TS4K	20 / TUBE
(Note 1)	X0	9	TS4K	Forming	

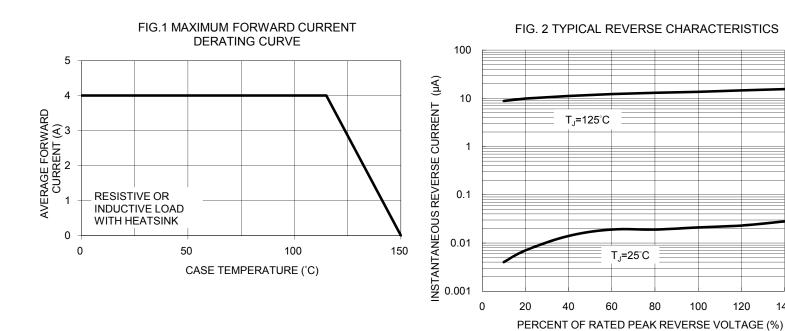
Note 1: "xx" defines voltage from 400V (TS4K40) to 800V (TS4K80)

\*: Optional available

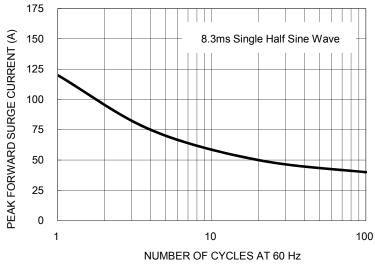
EXAMPLE						
PREFERRED P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION	
TS4K80HD3G	TS4K80	Н	D3	G	AEC-Q101 qualified Green compound	

#### **RATINGS AND CHARACTERISTICS CURVES**

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



#### FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



#### FIG. 4 TYPICAL FORWARD CHARACTERISTICS

100

120

140

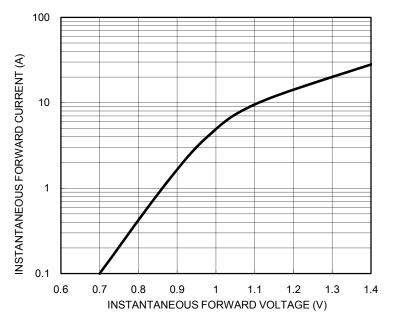
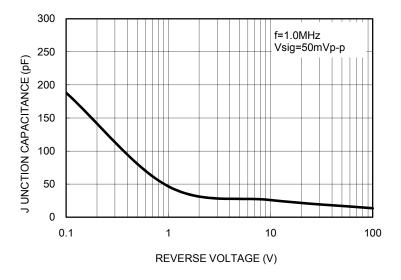
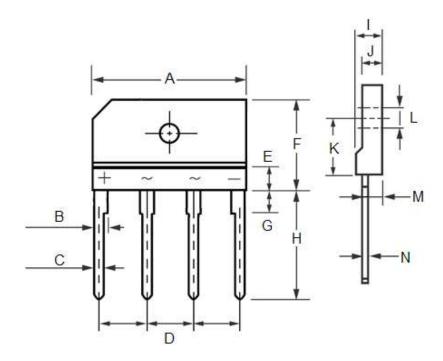




FIG. 5 TYPICAL JUNCTION CAPACITANCE



#### PACKAGE OUTLINE DIMENSIONS TS4K



DIM.	Unit	(mm)	Unit (inch)		
	Min	Мах	Min	Max	
Α	24.70	25.30	0.972	0.996	
В	2.00	2.30	0.079	0.091	
С	0.90	1.10	0.035	0.043	
D	7.30	7.70	0.287	0.303	
Е	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	
Н	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	
М	3.10	3.40	0.122	0.134	
N	0.50	0.70	0.020	0.028	

#### MARKING DIAGRAM



- = Specific Device Code
- = Green Compound
- YWW = Date Code

P/N

G

F

= Factory Code



#### Notice

Specifications of the products displayed herein are subject to change without notice. TSC or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in TSC's terms and conditions of sale for such products, TSC assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of TSC products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify TSC for any damages resulting from such improper use or sale.