# imall

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# 6A, 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

# MECHANICAL DATA

## Case: TS4K

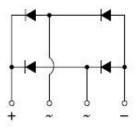
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Molding compound, UL flammability classification rating 94V-0 Part no. with suffix "H" means AEC-Q101 qualified Packing code with suffix "G" means green compound (halogen-free) **Terminal:** Matte tin plated leads, solderable per JESD22-B102 Meet JESD 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	TS6K40	TS6K60	TS6K80	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>	6			А		
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	150			А		
Rating for fusing (t<8.3ms)	l <sup>2</sup> t	93			A <sup>2</sup> s		
Maximum instantaneous forward voltage I <sub>F</sub> =3A (Note 1) I <sub>F</sub> =6A	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>	5 500		μA			
Typical thermal resistance	R <sub>eJC</sub>	3		°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 PACKING CODE PART NO. PART NO. PACKING CODE PACKAGE PACKING SUFFIX SUFFIX (\*) TS6Kxx D3 TS4K 20 / TUBE Н G (Note 1) TS4K X0 Forming

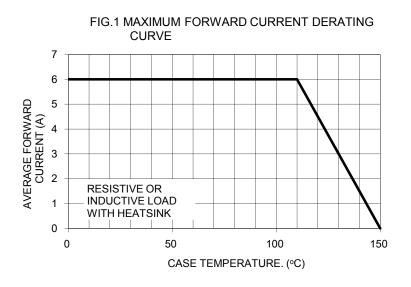
Note 1: "xx" defines voltage from 400V (TS6K40) to 800V (TS6K80)

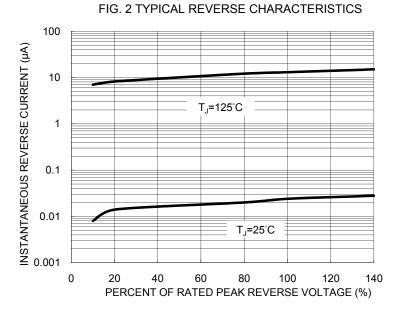
\*: Optional available

EXAMPLE								
PREFERRED P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION			
TS6K80HD3G	TS6K80	Н	D3	G	AEC-Q101 qualified Green compound			

# **RATINGS AND CHARACTERISTICS CURVES**

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

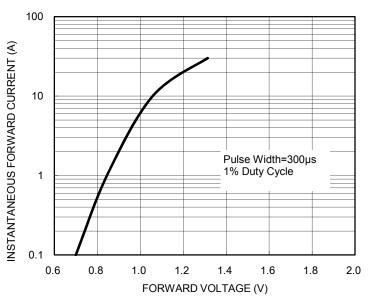




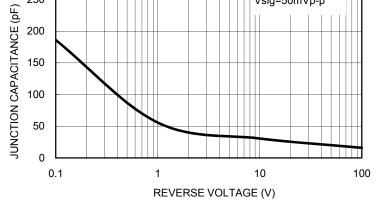
# 

NUMBER OF CYCLES AT 60Hz

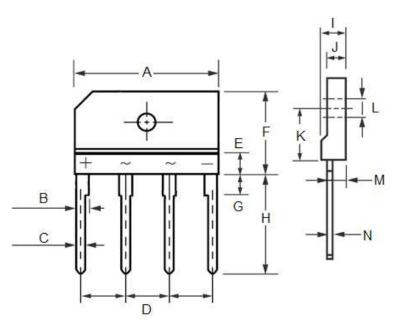
### FIG. 5 TYPICAL FORWARD CHARACTERISTICS







PACKAGE OUTLINE DIMENSIONS TS4K



P/N

YWW F

G

DIM.	Unit	(mm)	Unit (inch)		
	Min	Max	Min	Max	
А	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	
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	
Н	17.00	18.00	0.669	0.709	
l	4.40	4.80	0.173	0.189	
J	3.40	3.80	0.134	0.150	
К	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	
Ν	0.50	0.70	0.020	0.028	

# MARKING DIAGRAM



= Specific Device Code

= Green Compound

= Date Code

= Factory Code



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