imall

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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





10A, 400V - 800V Glass Passivated Bridge Rectifiers

FEATURES

- Glass passivated junction
- Ideal for printed circuit board
- Typical IR less than 0.1µA
- 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

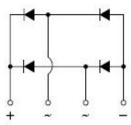
Molding compound, UL flammability classification rating 94V-0 Part no. with suffix "H" means AEC-Q101 qualified Packing code with suffix "G" means green compound (halogen-free) **Terminal:** Matte tin plated leads, solderable per JESD22-B102 Meet JESD 201 class 2 whisker test **Polarity:** Polarity as marked on the body **Mounting torque:** 8.17 in-lbs maximum **Weight:** 4 g (approximately)











MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)						
PARAMETER		SYMBOL	TS10K40	TS10K60	TS10K80	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)}	10			А
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)		l ² t	93			A ² s
Maximum instantaneous forward voltag (Note 1)	e I _F =5A I _F =10A	V _F	1.0 1.1			V
Maximum reverse current @ rated V_R	T _J =25°C T _J =125°C	I _R	10 500		μA	
Typical thermal resistance		R _{eJC}	2.3		°C/W	
Operating junction temperature range		TJ	- 55 to +150		°C	
Storage temperature range		T _{STG}	- 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 ^(*)	PACKAGE	PACKING
TS10Kxx	Ц	D3	G	TS4K	20 / TUBE
(Note 1)	X0	9	TS4K	Forming	

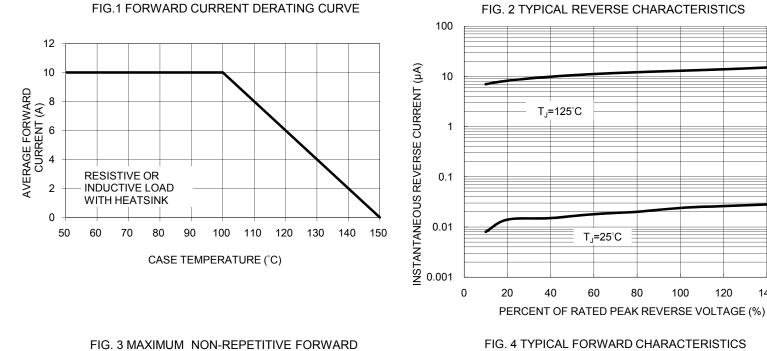
Note 1: "xx" defines voltage from 400V (TS10K40) to 800V (TS10K80)

*: Optional available

EXAMPLE						
PREFERRED P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION	
TS10K80HD3G	TS10K80	Н	D3	G	AEC-Q101 qualified Green compound	

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)



SURGE CURRENT 100 300 INSTANTANEOUS FORWARD CURRENT (A) PEAK FORWARD SURGE CURRENT (A) 8.3ms Single Half Sine Wave 250 200 10 150 100 1 50 0 100 10 1 0.1 NUMBER OF CYCLES AT 60 Hz

0.4

1.4

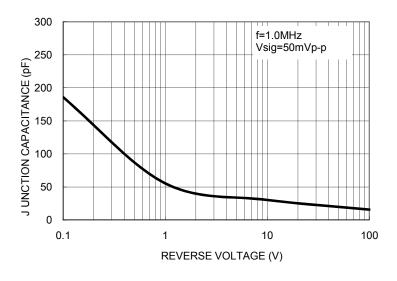
1.2

120

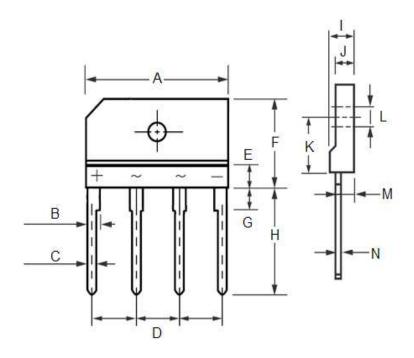
140



FIG. 5 TYPICAL JUNCTION CAPACITANCE







DIM.	Unit	(mm)	Unit (inch)		
	Min	Мах	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	
I	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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