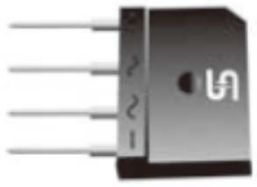
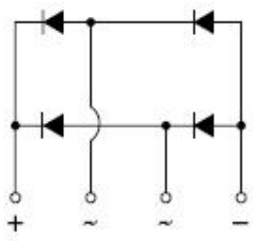
Glass Passivated Bridge Rectifiers

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 definition



TS4K



MECHANICAL DATA

Case: TS4K

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - halogen-free

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

Meet JESD 201 class 1A 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℃ 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			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 (I_F= 5 A) (Note 1) (I_F= 10 A)	V_F	1.0 1.1			V
Maximum DC reverse current (T_J=25 ℃) at rated DC blocking voltage (T_J=125℃)	I_R	10 500			μA
Typical thermal resistance	$R_{\theta JC}$	2.3			$^{O}C/W$
Operating junction temperature range	T_J	- 55 to +150			^{O}C
Storage temperature range	T_{STG}	- 55 to +150			^{O}C

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

ORDERING INFORMATION				
PART NO.	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
TS10Kxx (Note 1)	D3	Suffix "G"	TS4K	20 / TUBE
	X0		TS4K	Forming

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

EXAMPLE				
PREFERRED P/N	PART NO.	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
TS10K80 D3	TS10K80	D3		
TS10K80 D3G	TS10K80	D3	G	Green compound

RATINGS AND CHARACTERISTICS CURVES

(TA=25℃ unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

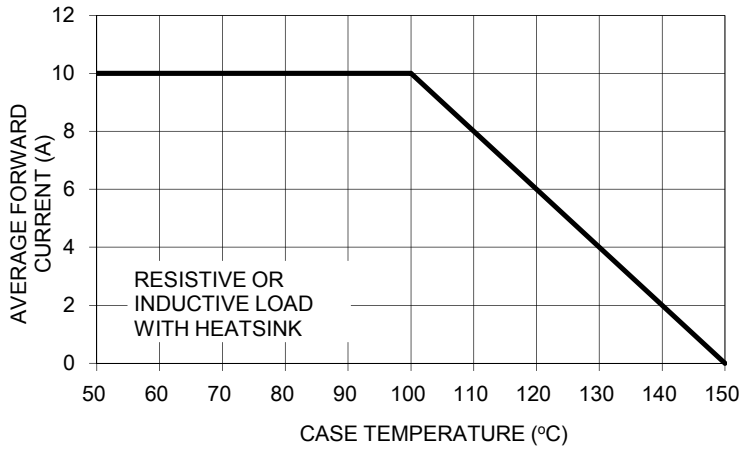


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

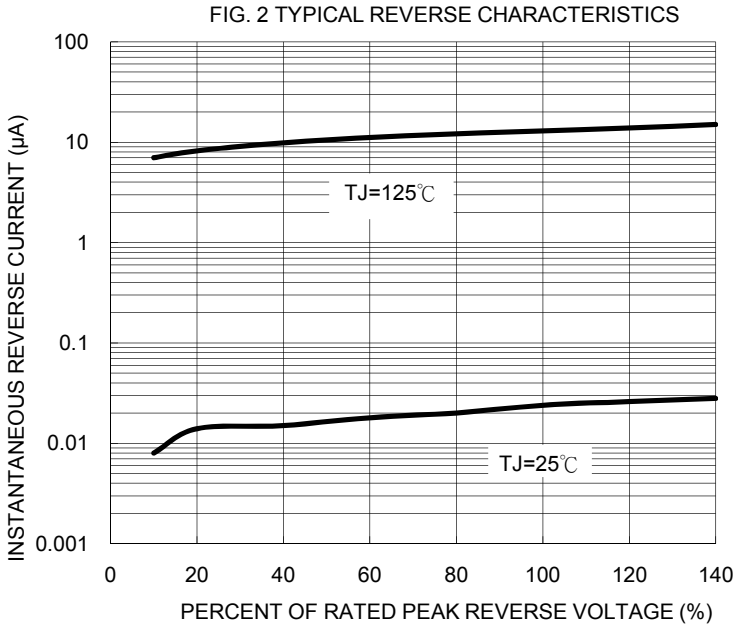


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

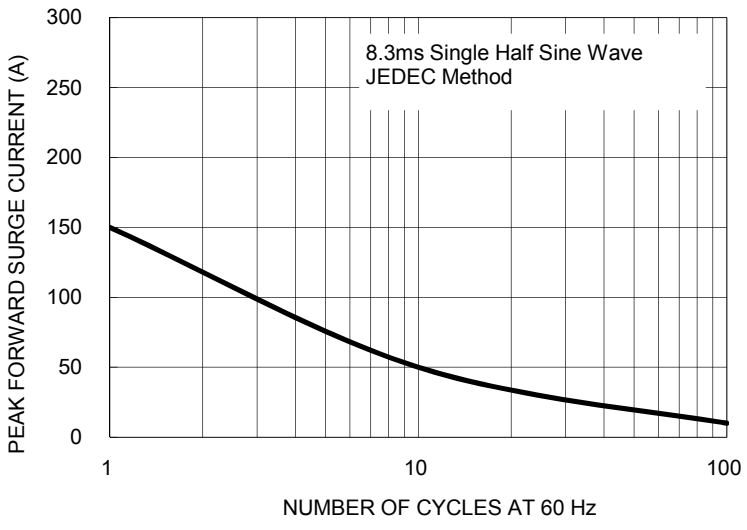


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

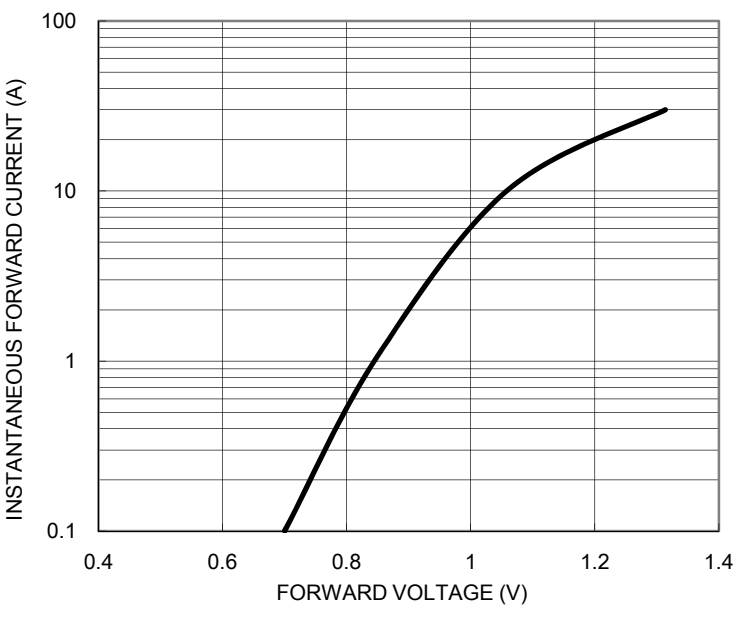
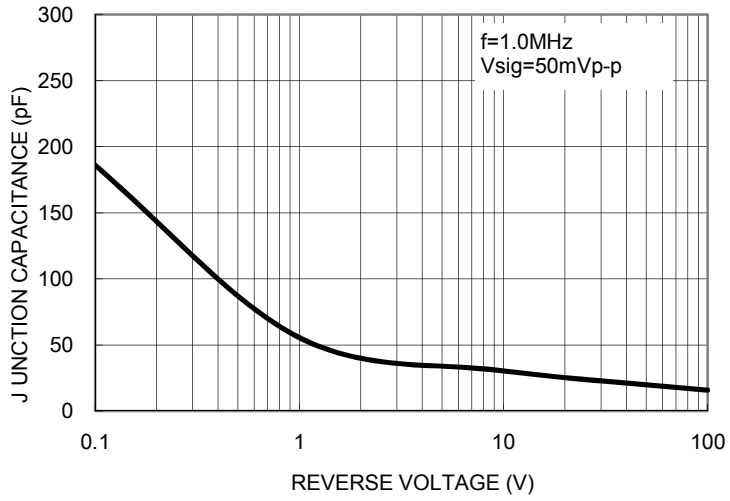
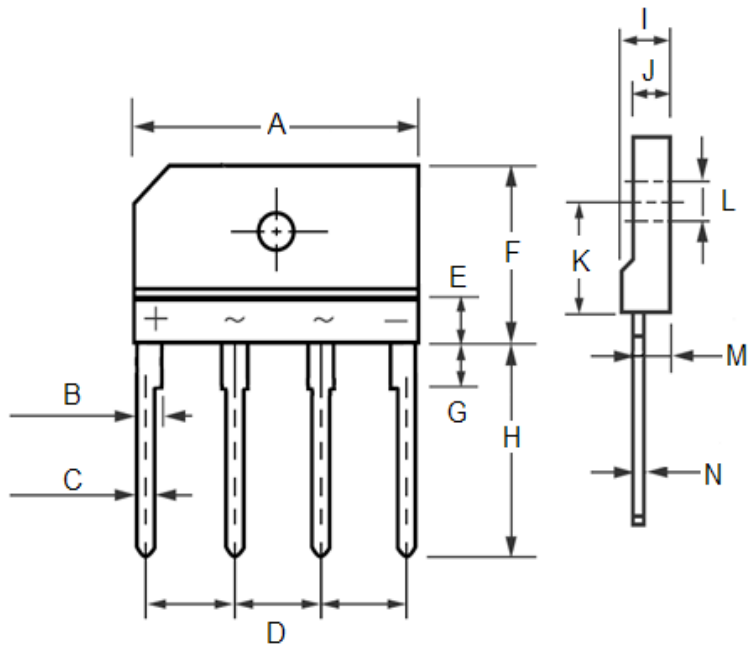


FIG. 5 TYPICAL JUNCTION CAPACITANCE



PACKAGE OUTLINE DIMENSIONS



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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