

# RKR0503AKH

Silicon Schottky Barrier Diode for Rectifying

REJ03G1740-0100  
Rev.1.00  
Nov 17, 2008

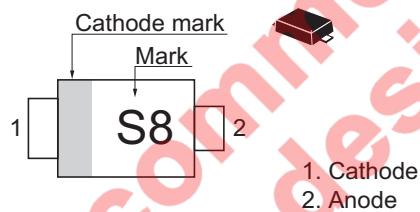
## Features

- Low forward voltage drop and suitable for high efficiency rectifying.
- Thin Ultra small Resin Package (TURP) is suitable for compact and high-density surface mount design.

## Ordering Information

Part No.	Laser Mark	Package Name	Package Code
RKR0503AKH	S8	TURP	PUSF0002ZC-A

## Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Repetitive peak reverse voltage	V <sub>RRM</sub>	30	V
Reverse voltage	V <sub>R</sub>	30	V
Average rectified current	I <sub>o</sub> <sup>*1 *2</sup>	0.5	A
Non-Repetitive peak forward surge current	I <sub>FSM</sub> <sup>*3</sup>	3	A
Junction temperature	T <sub>j</sub>	125	°C
Storage temperature	T <sub>stg</sub>	-55 to +125	°C

Notes: 1. See from Fig.6 with Glass epoxy board.

2. Ta = 62°C, With Glass epoxy board (board size: 50 mm × 50 mm, Land size 6 mm × 6 mm)  
Short form wave (θ180°C), V<sub>R</sub> = 10 V.

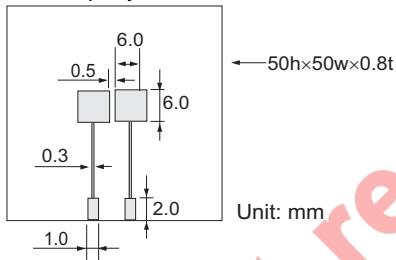
3. 10 ms sine wave 1 pulse.

## Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V <sub>F</sub>	—	—	0.37	V	I <sub>F</sub> = 500 mA
Reverse current	I <sub>R</sub>	—	—	500	μA	V <sub>R</sub> = 30 V
Thermal resistance	R <sub>th(j-a)</sub>	—	200	—	°C/W	Glass epoxy board <sup>*1</sup>

Notes: 1. Glass epoxy board



3. TURP is the structure which radiates heat to a substrate, please perform mounting to a substrate by reflow.

## Main Characteristic

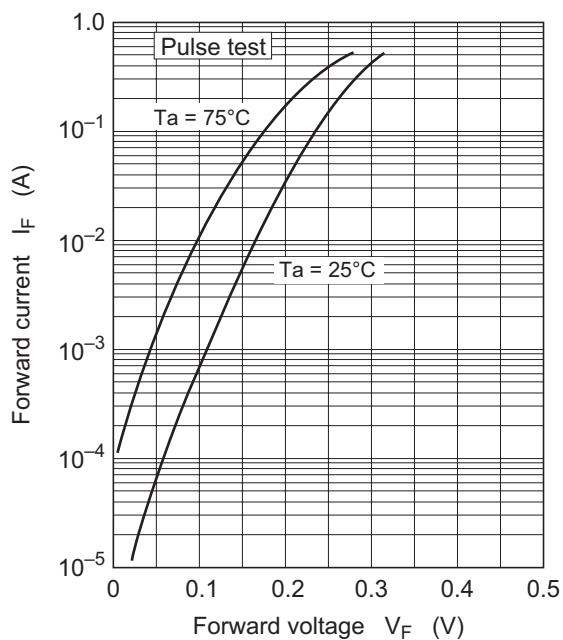


Fig.1 Forward current vs. Forward voltage

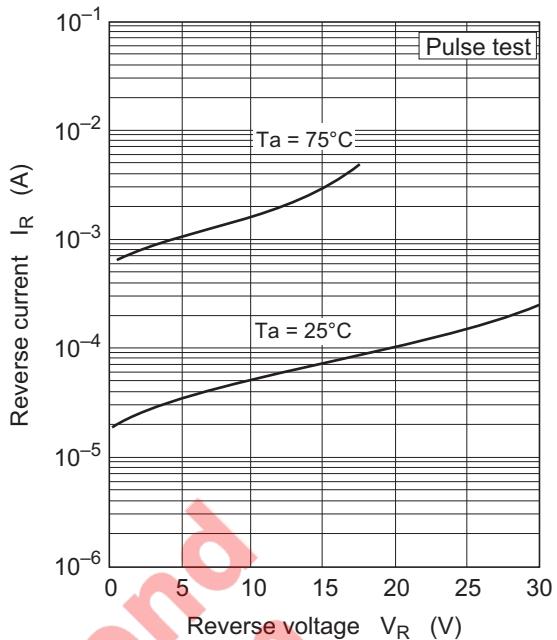


Fig.2 Reverse current vs. Reverse voltage

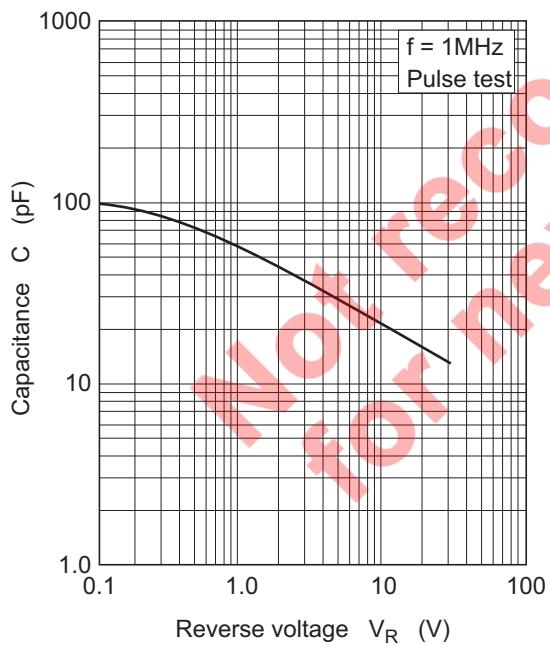


Fig.3 Capacitance vs. Reverse voltage

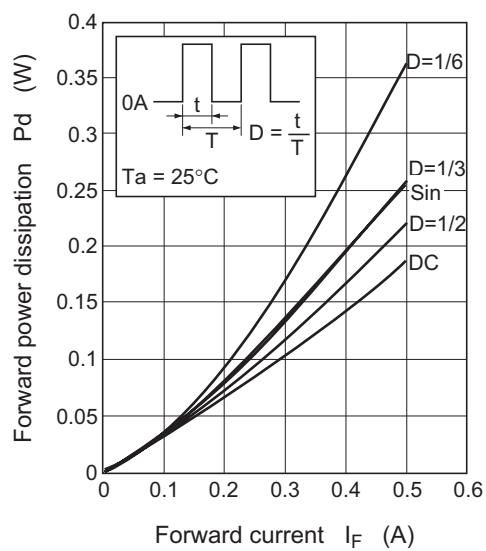


Fig.4 Forward power dissipation vs. Forward current

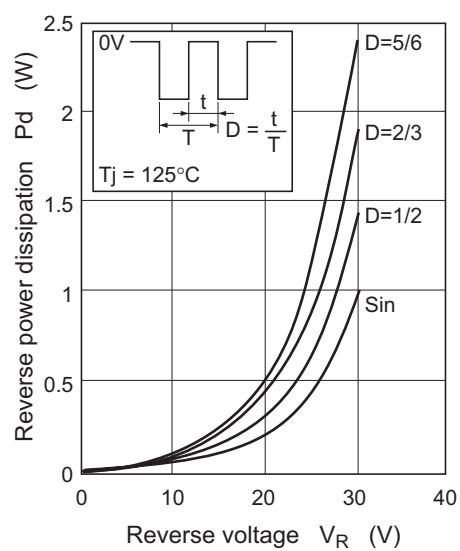


Fig.5 Reverse power dissipation vs. Reverse voltage

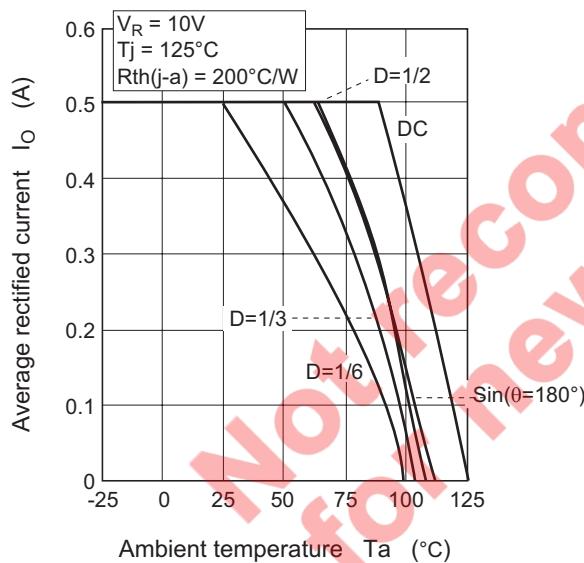
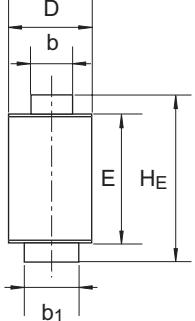
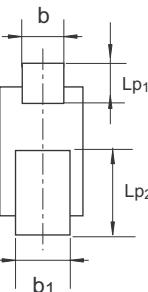


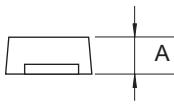
Fig.6 Average rectified current vs. Ambient temperature

## Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
TURP	—	PUSF0002ZC-A	TURP/TURPV	0.004g







Pattern of terminal position areas

Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A	—	—	0.55
b	0.55	0.60	0.65
b <sub>1</sub>	0.75	0.80	0.85
c	0.08	0.13	0.18
D	1.15	1.25	1.45
E	1.80	1.90	2.00
H <sub>E</sub>	2.40	2.50	2.60
Lp <sub>1</sub>	0.40	0.50	0.60
Lp <sub>2</sub>	1.30	1.40	1.50
b <sub>2</sub>	—	0.8	—
b <sub>3</sub>	—	1.1	—
e <sub>1</sub>	—	0.5	—
l <sub>1</sub>	—	0.8	—
l <sub>2</sub>	—	2.0	—

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