

RKR0505AKH

Silicon Schottky Barrier Diode for Rectifying

REJ03G1493-0100

Rev.1.00

Jan 09, 2007

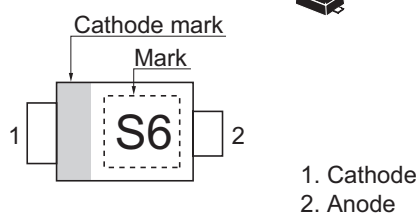
Features

- Low forward voltage drop and suitable for high efficiency rectifying.
- Thin Ultra small Resin Package (TURP) is suitable for high density surface mounting and high speed assembly.

Ordering Information

Type No.	Laser Mark	Package Name	Package Code
RKR0505AKH	S6	TURP	PUSF0002ZC-A

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Repetitive peak reverse voltage	V_{RRM}	50	V
Reverse voltage	V_R	20	V
Average rectified current	I_O^{*1*2}	0.5	A
Non-Repetitive peak forward surge current	I_{FSM}^{*3}	3	A
Junction temperature	T_J	125	°C
Storage temperature	T_{stg}	-55 to +125	°C

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

2. Ta = 40°C, With Glass epoxy board (board size: 50mm × 50 mm, Land size 6mm × 6 mm)
Short form wave (θ180°C), $V_R = 10$ V.

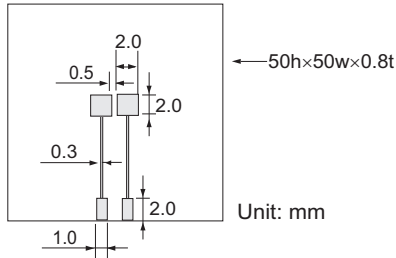
3. 10 ms sine wave 1 pulse.

Electrical Characteristics

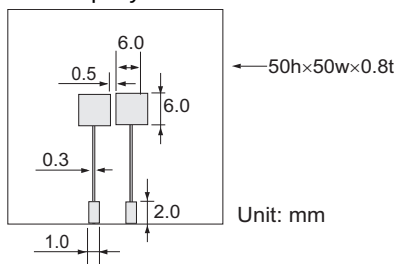
(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_{F1}	—	—	0.25	V	$I_F = 10$ mA
	V_{F2}	—	—	0.46		$I_F = 500$ mA
Reverse current	I_{R1}	—	—	200	μA	$V_R = 10$ V
	I_{R2}	—	—	400		$V_R = 30$ V
Capacitance	C	—	—	20	pF	$V_R = 10$ V, f = 1 MHz
Thermal resistance	$R_{th(j-a)}$	—	100	—	°C/W	Ceramics board ^{*1}
		—	200	—		Glass epoxy board ^{*2}

Notes: 1. Ceramics board



2. Glass epoxy board



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

Main Characteristic

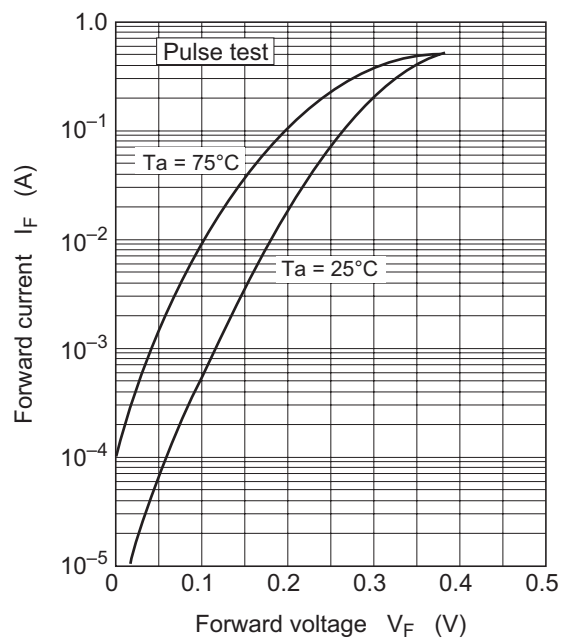


Fig.1 Forward current vs. Forward voltage

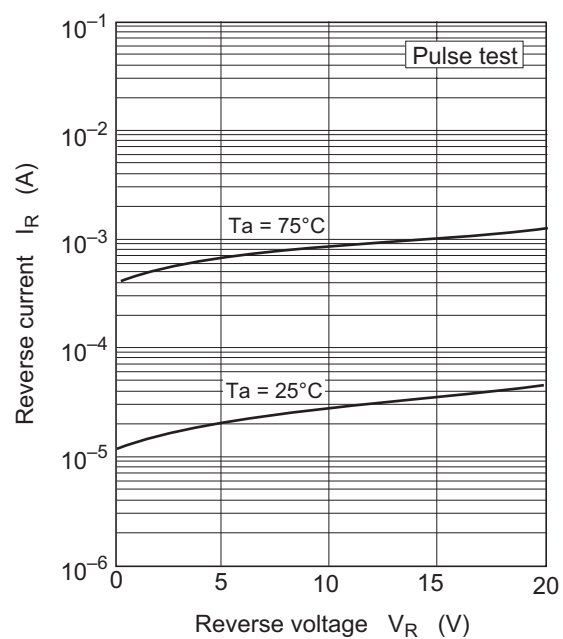


Fig.2 Reverse current vs. Reverse voltage

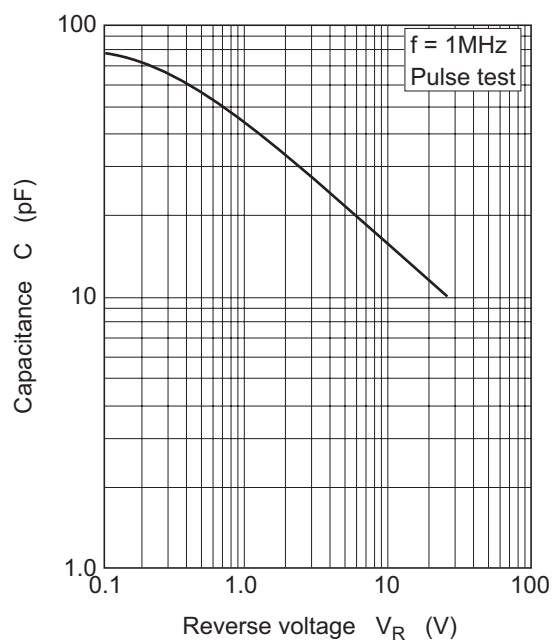


Fig.3 Capacitance vs. Reverse voltage

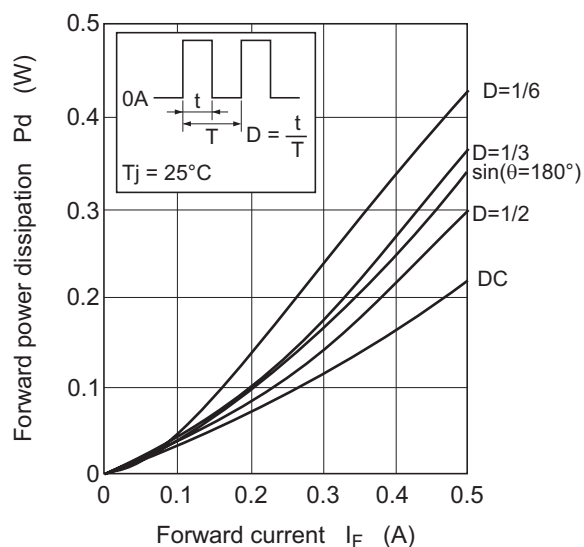


Fig.4 Forward power dissipation vs. Forward current

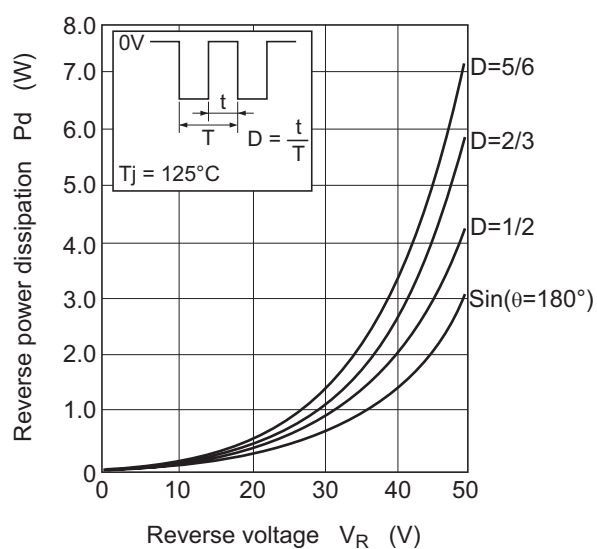


Fig.5 Reverse power dissipation vs. Reverse voltage

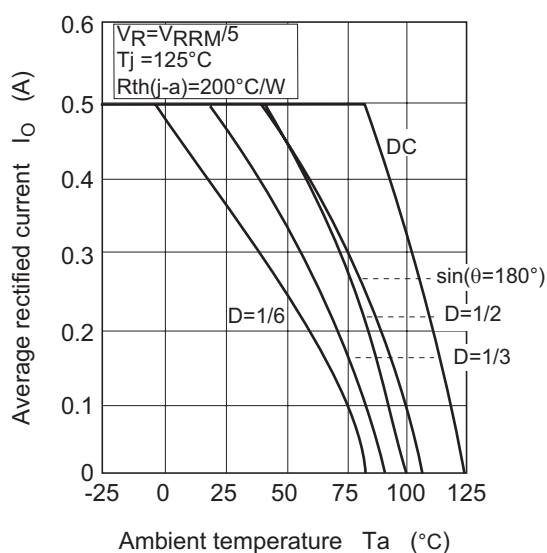
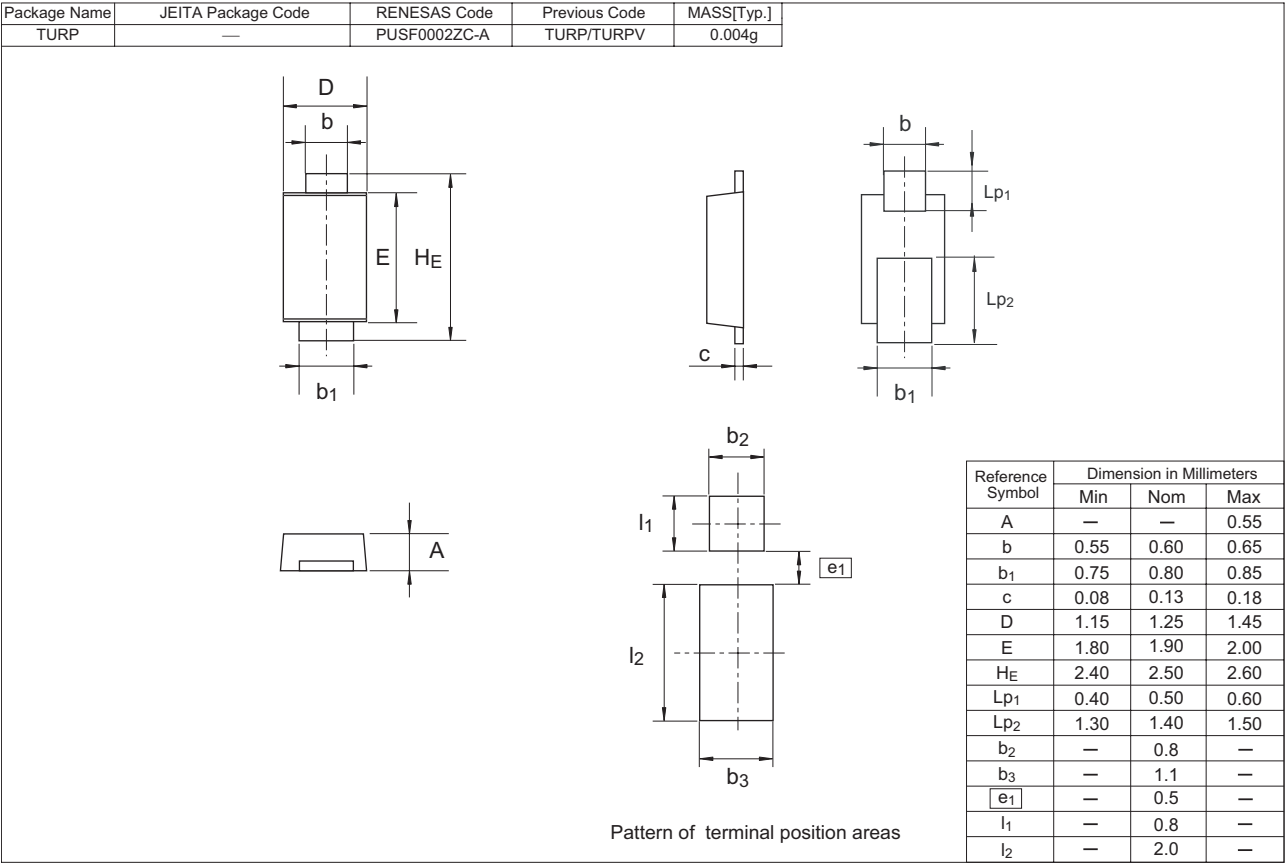


Fig.6 Average rectified current vs. Ambient temperature

Package Dimensions



Notes:

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Renesas Technology Europe Limited

Dukes Meadow, Millboard Road, Bourne End, Buckinghamshire, SL8 5FH, U.K.
Tel: <44> (1628) 585-100, Fax: <44> (1628) 585-900

Renesas Technology (Shanghai) Co., Ltd.

Unit 204, 205, AZIA Center, No.1233 Lujiazui Ring Rd, Pudong District, Shanghai, China 200120
Tel: <86> (21) 5877-1818, Fax: <86> (21) 6887-7898

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7th Floor, North Tower, World Finance Centre, Harbour City, 1 Canton Road, Tsimshatsui, Kowloon, Hong Kong
Tel: <852> 2265-6688, Fax: <852> 2730-6071

Renesas Technology Taiwan Co., Ltd.

10th Floor, No.99, Fushing North Road, Taipei, Taiwan
Tel: <886> (2) 2715-2888, Fax: <886> (2) 2713-2999

Renesas Technology Singapore Pte. Ltd.

1 Harbour Front Avenue, #06-10, Keppel Bay Tower, Singapore 098632
Tel: <65> 6213-0200, Fax: <65> 6278-8001

Renesas Technology Korea Co., Ltd.

Kukje Center Bldg. 18th Fl., 191, 2-ka, Hangang-ro, Yongsan-ku, Seoul 140-702, Korea
Tel: <82> (2) 796-3115, Fax: <82> (2) 796-2145

Renesas Technology Malaysia Sdn. Bhd

Unit 906, Block B, Menara Amcorp, Amcorp Trade Centre, No.18, Jalan Persiaran Barat, 46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia
Tel: <603> 7955-9390, Fax: <603> 7955-9510