

RKR0505BKH

Silicon Schottky Barrier Diode for Rectifying

REJ03G1494-0100

Rev.1.00

Jan 09, 2007

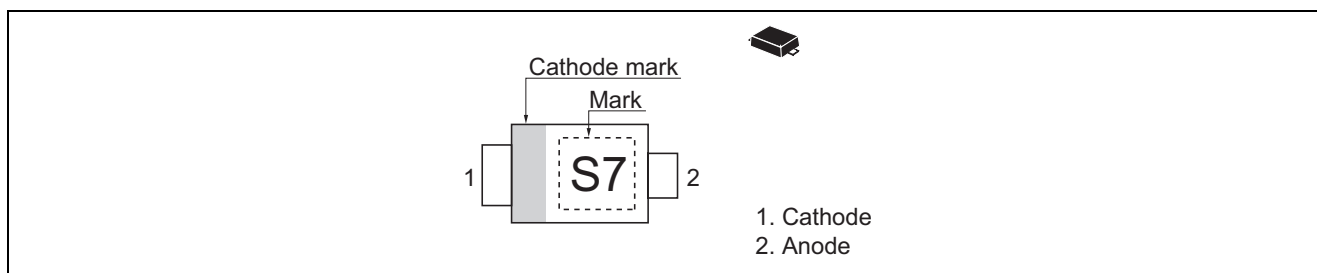
Features

- 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
RKR0505BKH	S7	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	40	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	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

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

2. Ta = 41°C, With Glass epoxy board (board size: 50mm × 50 mm, Land size 6mm × 6 mm)
Short form wave (0180°C), $V_R = 25$ V.

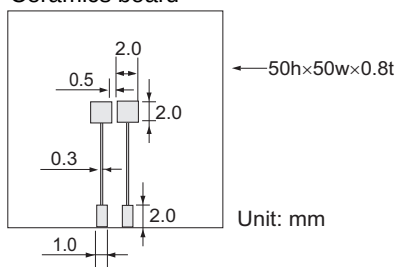
3. 10 ms sine wave 1 pulse.

Electrical Characteristics

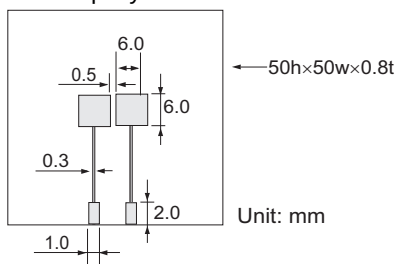
(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_F	—	—	0.6	V	$I_F = 500$ mA
Reverse current	I_{R1}	—	—	20	μ A	$V_R = 10$ V
	I_{R2}	—	—	40		$V_R = 30$ 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 Characteristics

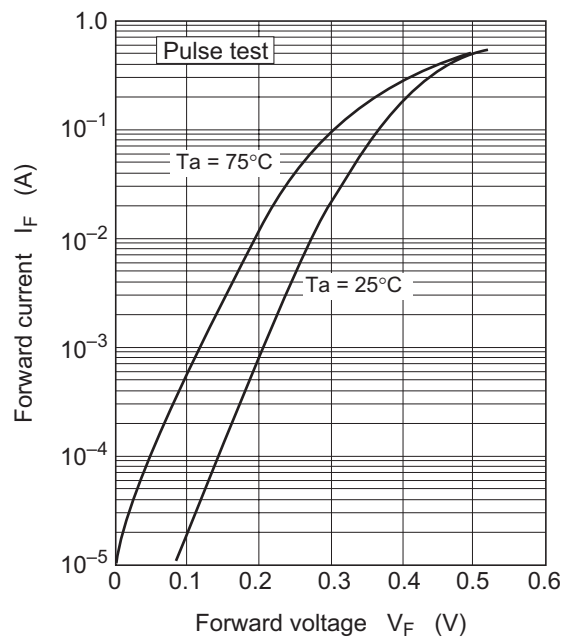


Fig.1 Forward current vs. Forward voltage

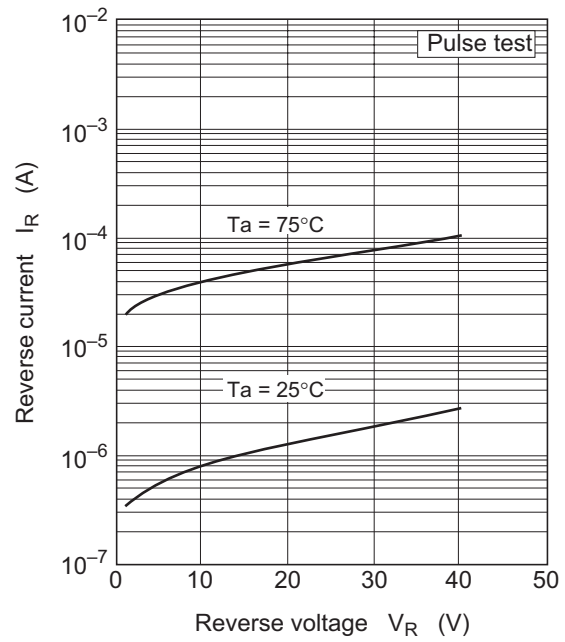


Fig.2 Reverse current vs. Reverse voltage

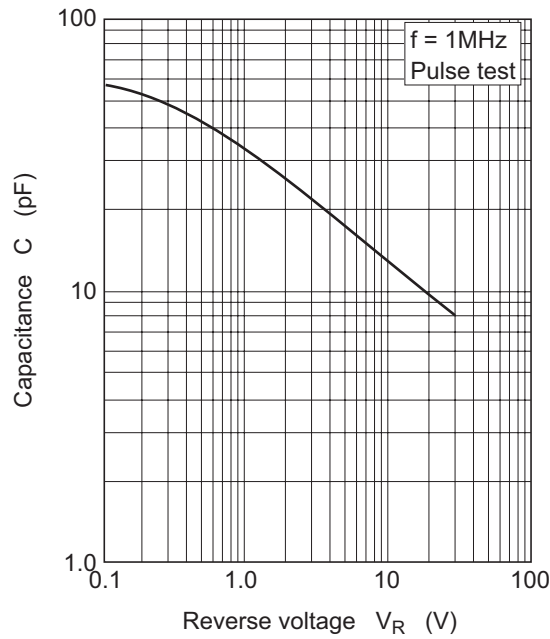


Fig.3 Capacitance vs. Reverse voltage

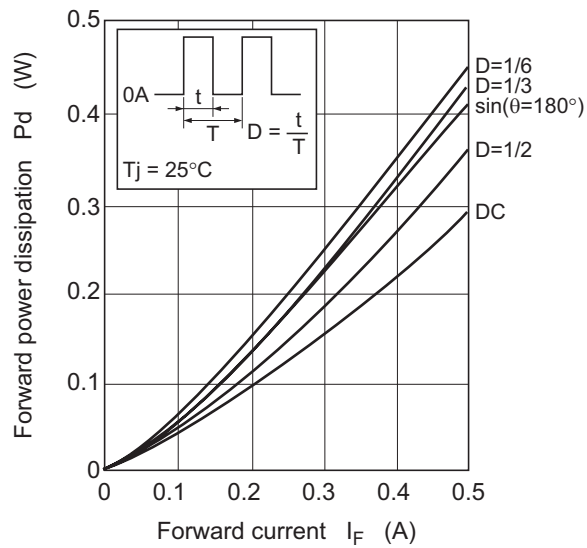


Fig.4 Forward power dissipation vs. Forward current

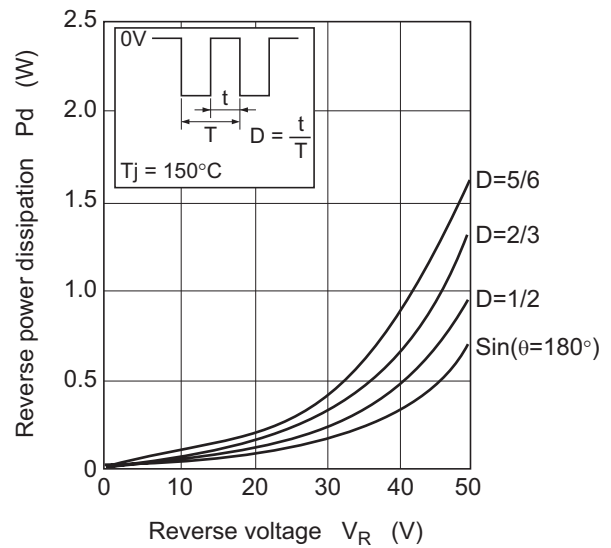


Fig.5 Reverse power dissipation vs. Reverse voltage

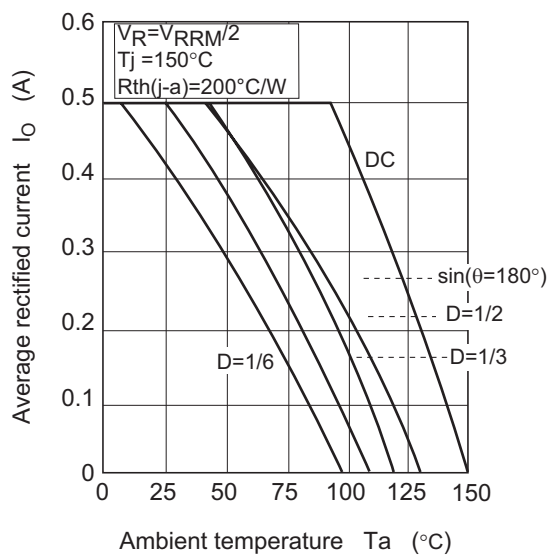
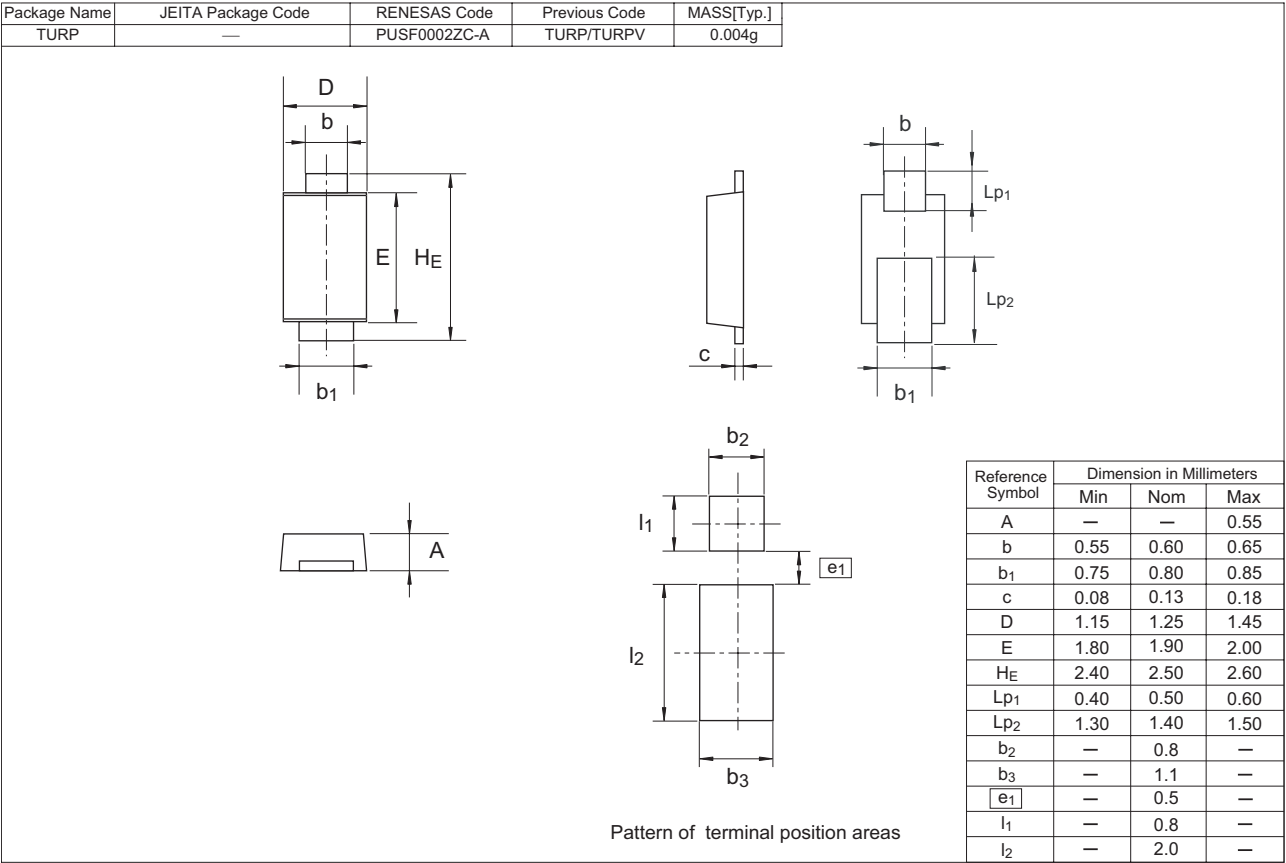


Fig.6 Average rectified current vs. Ambient temperature

Package Dimensions



Notes:

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