

RKR103AKU

Silicon Schottky Barrier Diode for Rectifying

R07DS0685EJ0100

Rev.1.00

Jun 12, 2012

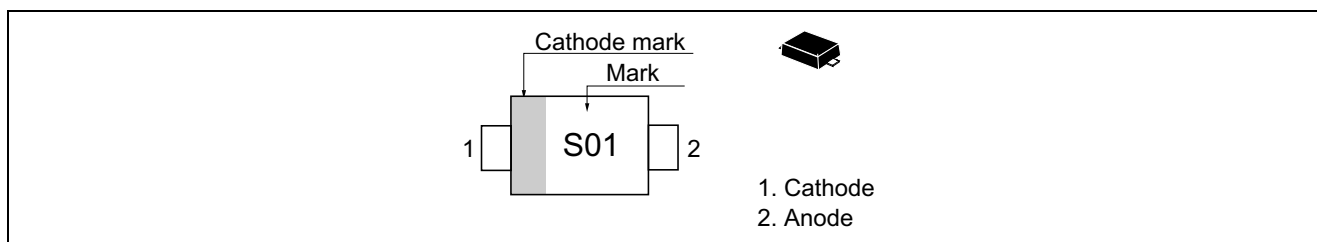
Features

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

Ordering Information

Part No	Laser Mark	Package Name	Package Code	Taping Abbreviation (Quantity)
RKR103BKU # P6	S01	TURP-FM	PUSF0002ZD-A	P6 (4,000pcs / reel)

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Repetitive peak reverse voltage	V_{RRM}	30	V
Reverse voltage	V_R	30	V
Average rectified current	I_O^{*1*2}	1	A
Non-Repetitive peak forward surge current	I_{FSM}^{*3}	4	A
Junction temperature	T_J	125	°C
Storage temperature	T_{stg}	-55 to +125	°C

Notes: 1. See Fig.6. With Ceramics board.

2. Ta = 29°C, With Ceramics board (board size: 50 mm × 50 mm, Land size 2 mm × 2 mm)
Short form wave ($\theta = 180^\circ$) $V_R = 10$ V.

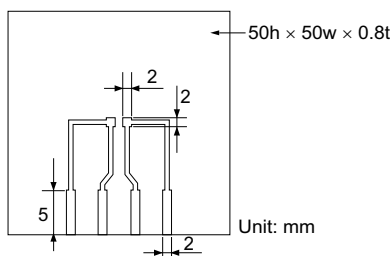
3. 10 ms sin wave 1 pulse.

Electrical Characteristics

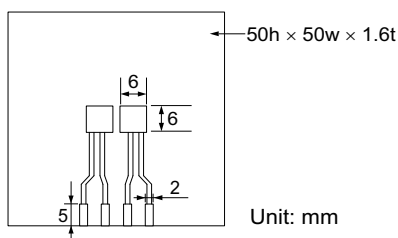
(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_{F1}	—	—	0.28	V	$I_F = 100$ mA
	V_{F2}	—	—	0.33		$I_F = 300$ mA
	V_{F3}	—	—	0.43		$I_F = 700$ mA
Reverse current	I_{R1}	—	—	50	μ A	$V_R = 5$ V
	I_{R2}	—	—	500		$V_R = 30$ V
Capacitance	C	—	—	30	pF	$V_R = 10$ V f = 1 MHz
Thermal resistance	$R_{th(j-a)}$	—	110	—	°C/W	Ceramics board ^{*1}
		—	220	—		Glass epoxy board ^{*2}

Notes: 1. Ceramics board



2. Glass epoxy board



Main Characteristics

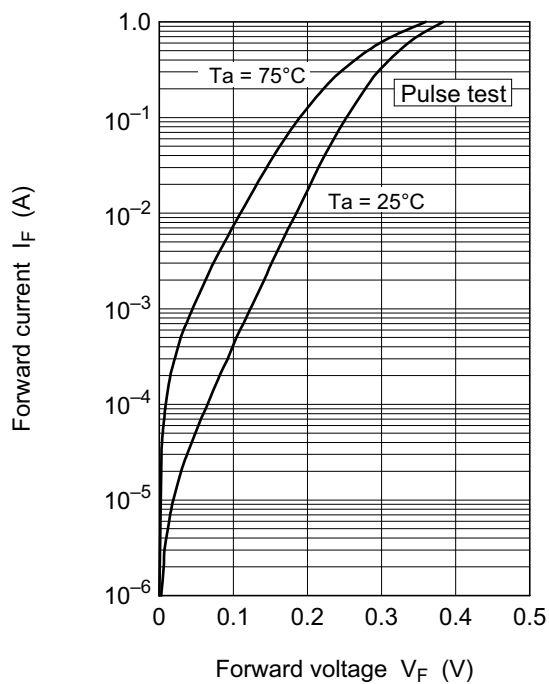


Fig.1 Forward current vs. Forward voltage

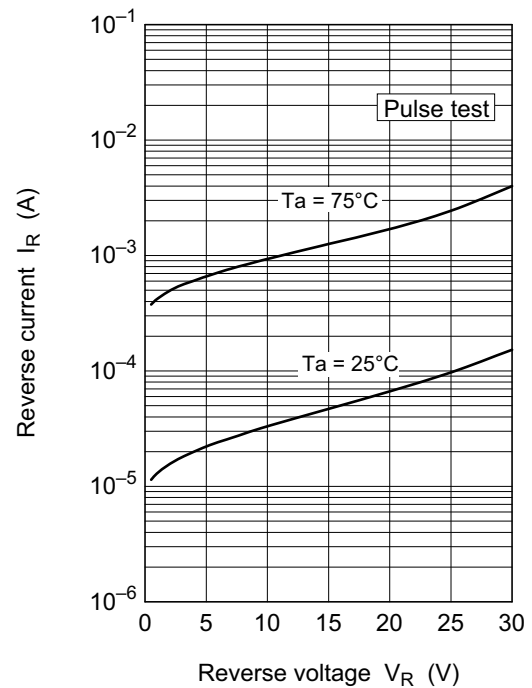


Fig.2 Reverse current vs. Reverse voltage

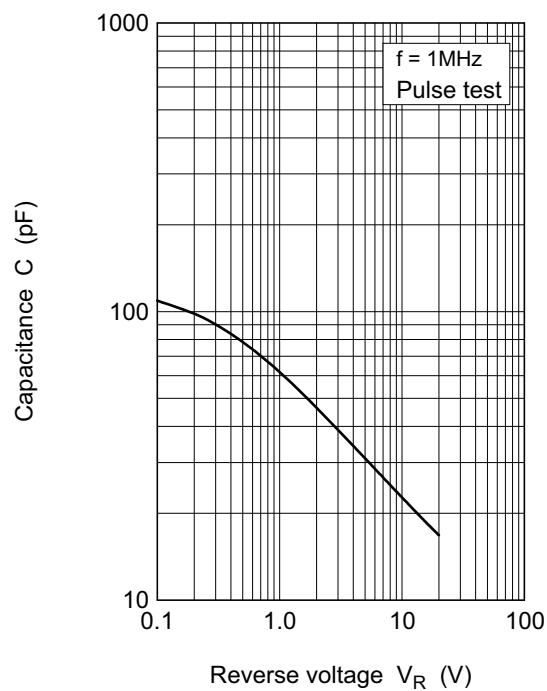


Fig.3 Capacitance vs. Reverse voltage

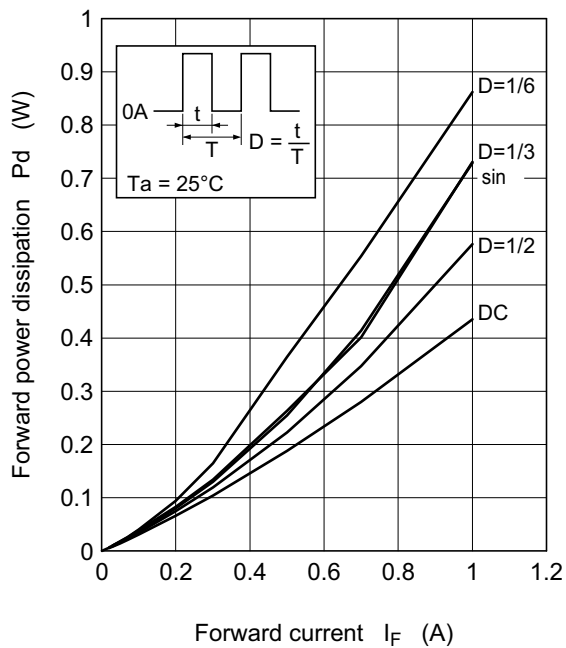


Fig.4 Forward power dissipation vs. Forward current

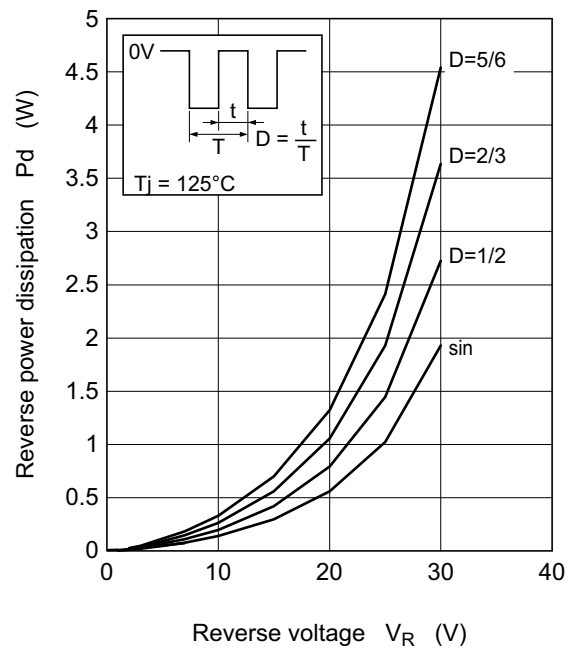


Fig.5 Reverse power dissipation vs. Reverse voltage

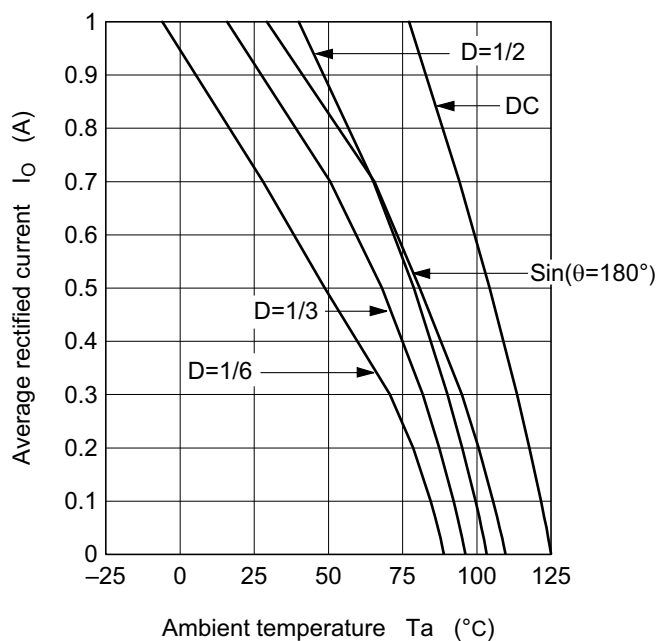
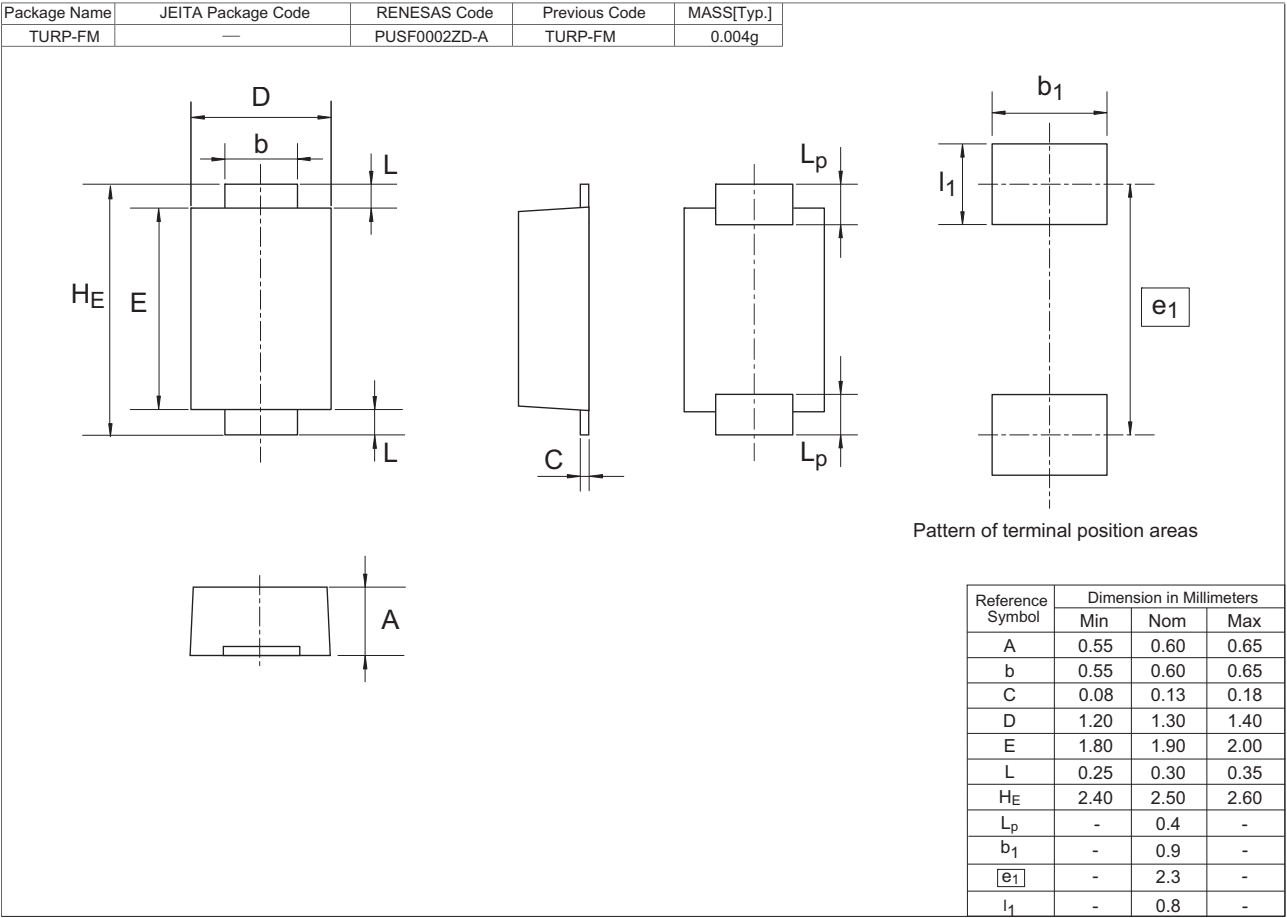


Fig.6 Average rectified current vs. Ambient temperature
 ($V_R=10\text{V}$, $T_j=125^\circ\text{C}$, $R_{th(j-a)}=110^\circ\text{C/W}$, With Ceramics board)

Package Dimensions



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