

# RKR0503AKJ

## Silicon Schottky Barrier Diode for Rectifying

REJ03G1890-0100

Rev.1.00

Jan 20, 2010

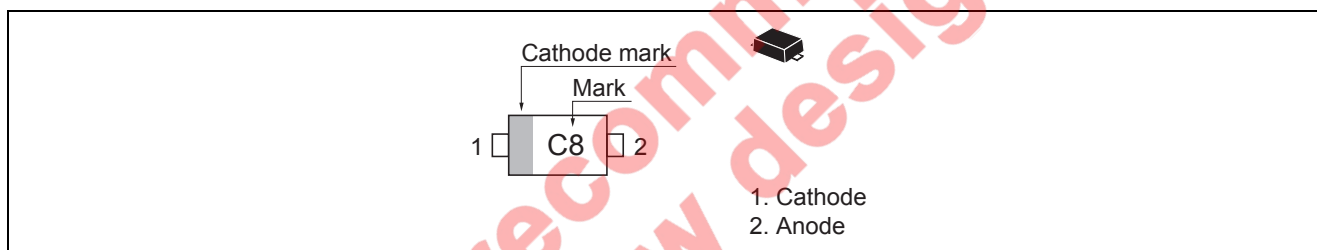
### Features

- Low forward voltage drop and suitable for high efficiency rectifying.
- Ultra small Flat Lead Package (UFP) is suitable for compact and high-density surface mount design.

### Ordering Information

Part No	Laser Mark	Package Name	Package Code	Taping Abbreviation (Quantity)
RKR0503AKJ P	C8	UFP	PWSF0002ZA-A	P (4,000 pcs / reel)
RKR0503AKJ R				R (8,000 pcs / reel)

### Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Repetitive peak reverse voltage	$V_{RRM}$	30	V
Average rectified current	$I_o$ * <sup>1</sup>	0.5	A
Non-Repetitive peak forward surge current	$I_{FSM}$ * <sup>2</sup>	2	A
Junction temperature	$T_j$	125	°C
Storage temperature	$T_{stg}$	-55 to +125	°C

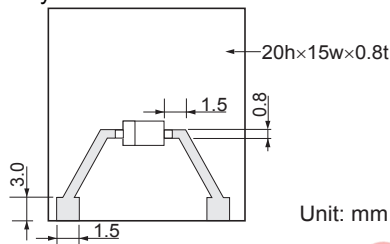
Notes: 1. See from Fig.4 to Fig.7.  
 2. 10 ms sine wave 1 pulse.

## Electrical Characteristics

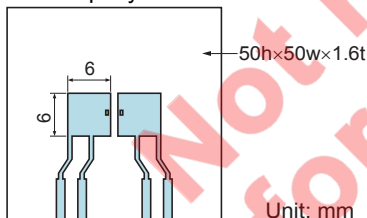
(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_F$	—	—	0.54	V	$I_F = 500$ mA
Reverse current	$I_R$	—	—	200	μA	$V_R = 30$ V
Thermal resistance	$R_{th(j-a)}$	—	600	—	°C/W	Polyimide board * <sup>1</sup>
Thermal resistance	$R_{th(j-L)}$	—	150	—	°C/W	Glass-epoxy board * <sup>2</sup>

Notes: 1. Polyimide board



2. Glass-epoxy board



Note: In the UFP package, some lead is exposed because the tip of the lead is used as the cutting plane. Therefore, the solderability of the lead tip has been ignored. Please test and confirm before use.

## Main Characteristics

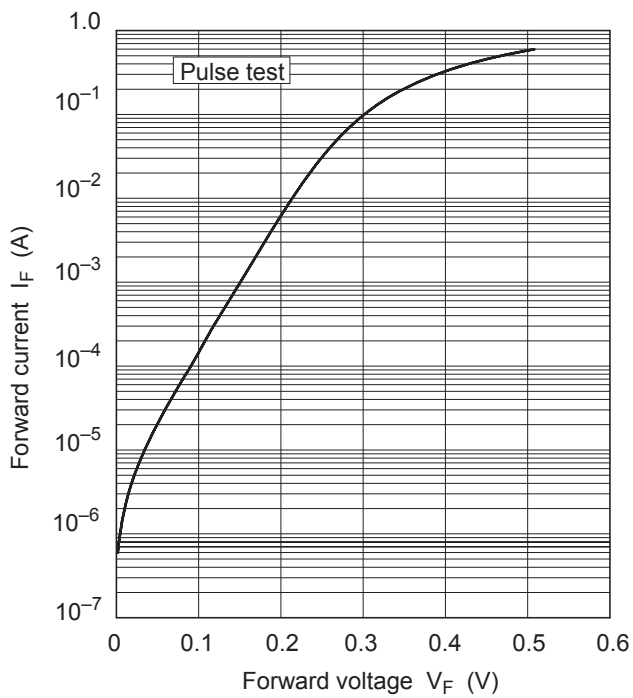


Fig.1 Forward current vs. Forward voltage

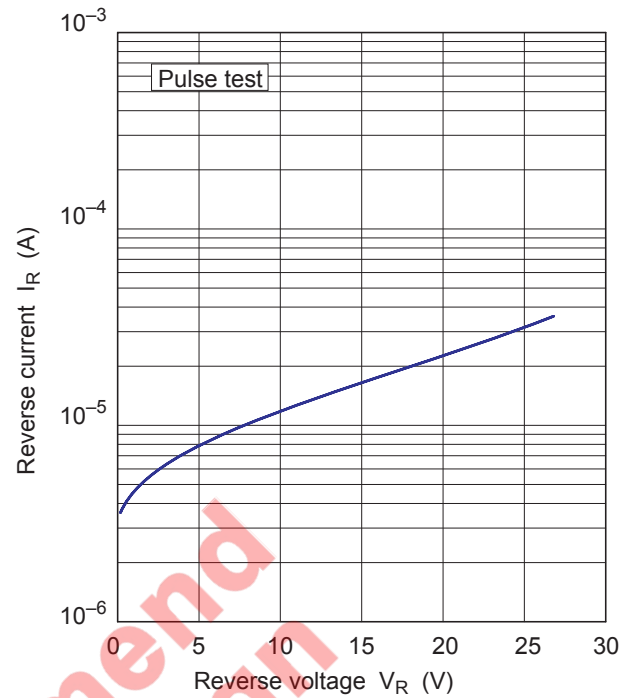


Fig.2 Reverse current vs. Reverse voltage

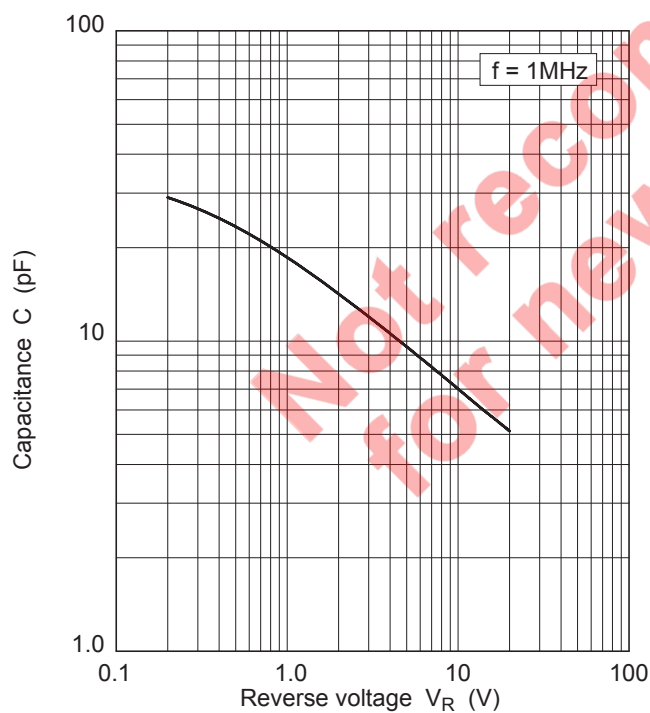


Fig.3 Capacitance vs. Reverse voltage

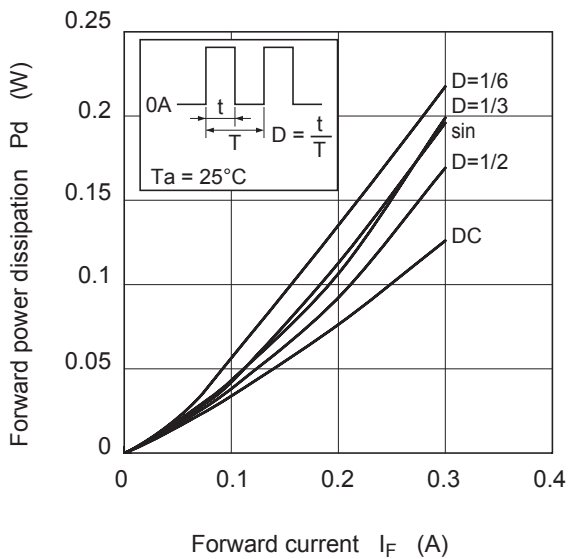


Fig.4 Forward power dissipation vs. Forward current

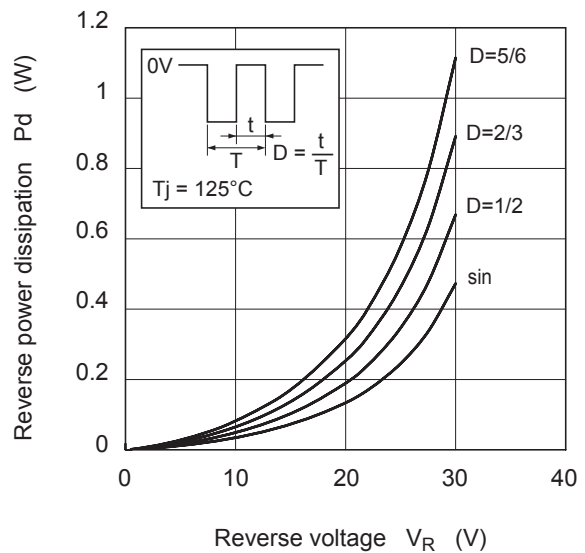


Fig.5 Reverse power dissipation vs. Reverse voltage

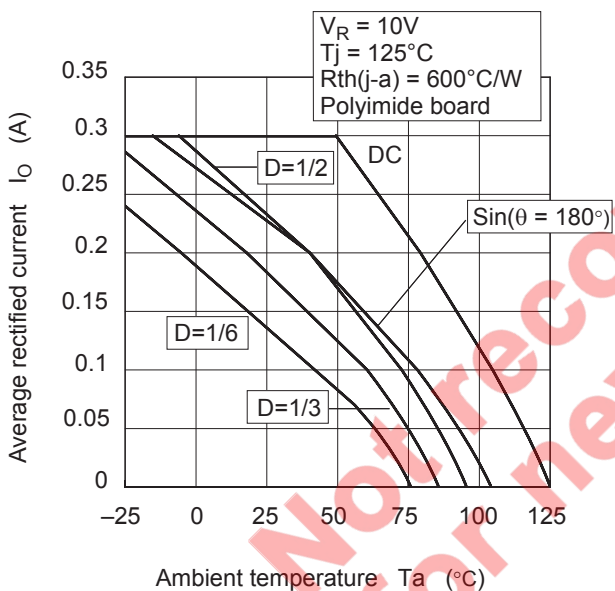


Fig.6 Average rectified current vs. Ambient temperature

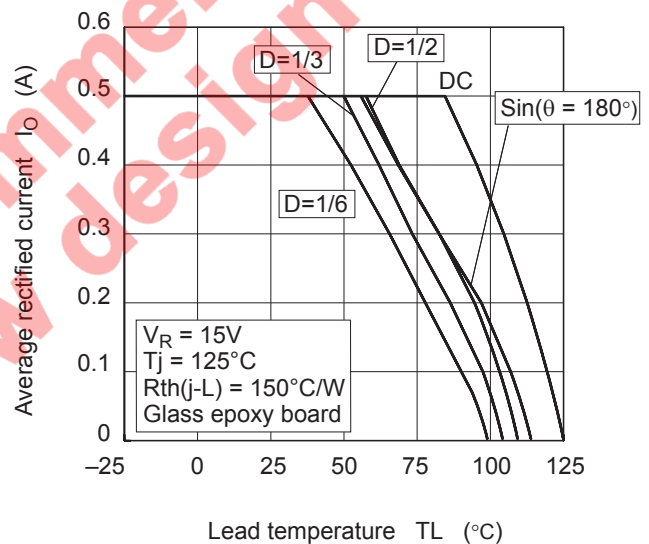
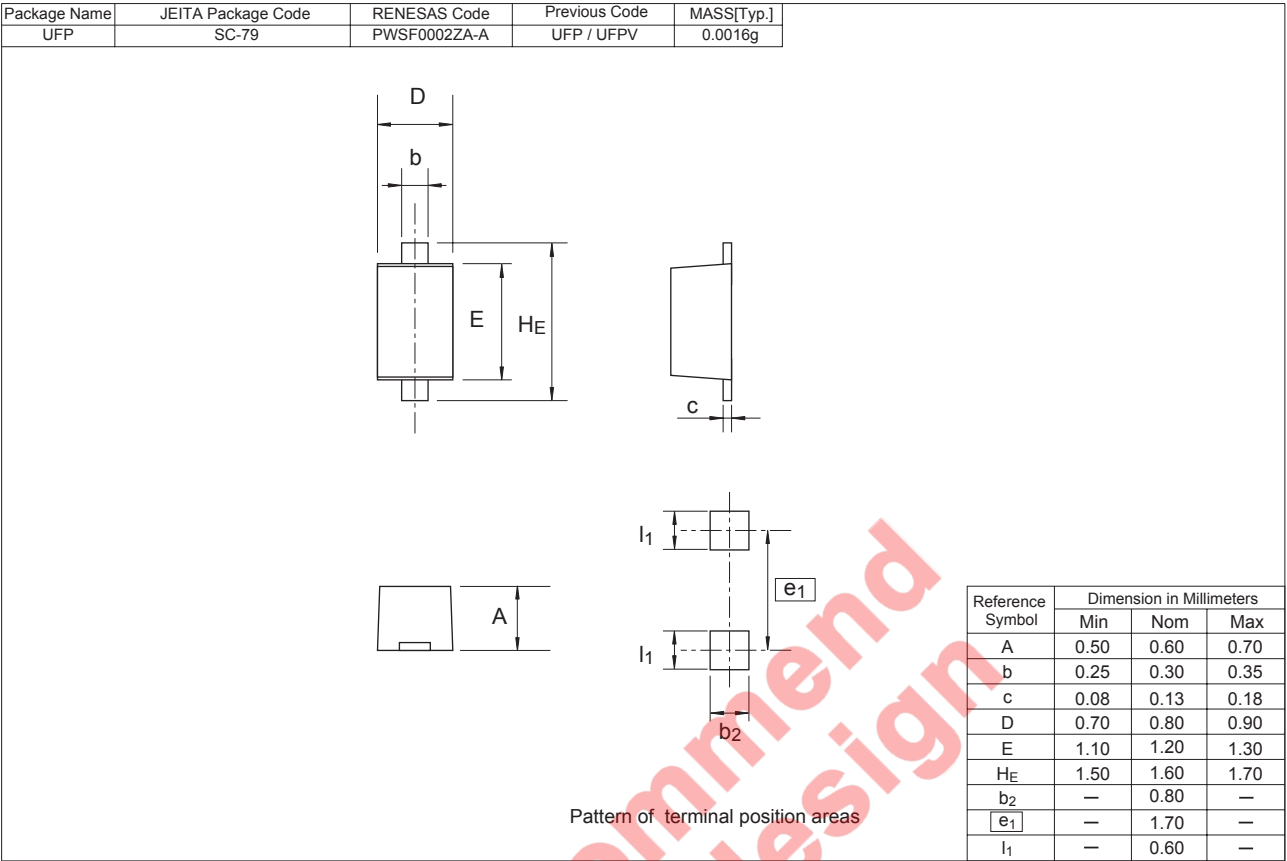


Fig.7 Average rectified current vs. Lead temperature

Package Dimensions



Notes:

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