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April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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RKD703KJ

Silicon Schottky Barrier Diode for High Speed Switching

REJ03G1898-0100

Rev.1.00

Feb 25, 2010

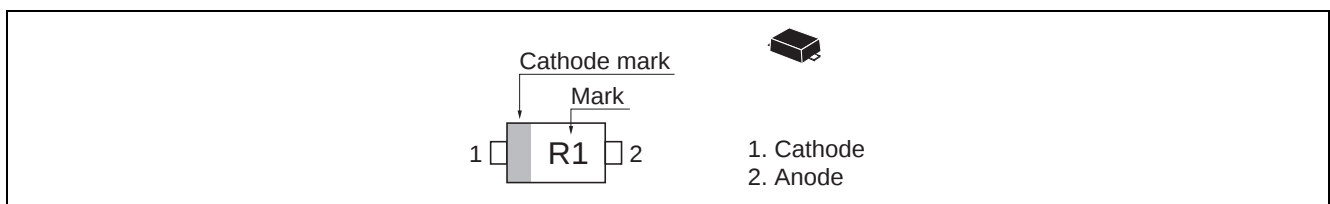
Features

- Low Power consumption (Low reverse leak current) and high speed (Low capacitance).
- We can support the lineup of environmental friendly halogen free type on your demand.
- 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)
RKD703KJ P RKD703KJ R	R1	UFP	PWSF0002ZA-A	P (4,000 pcs / reel) 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^{*1}	100	mA
Non-Repetitive peak forward surge current	I_{FSM}^{*2}	200	mA
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	-55 to +125	°C

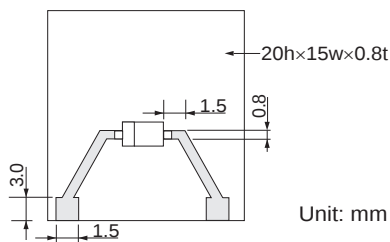
Notes: 1. See from Fig.4 to Fig.6.
 2. 10 ms sine wave 1 pulse.

Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_{F1}	—	—	0.25	V	$I_F = 1 \text{ mA}$
	V_{F2}	—	—	0.30	V	$I_F = 5 \text{ mA}$
	V_{F3}	—	—	0.35	V	$I_F = 20 \text{ mA}$
	V_{F4}	—	—	0.60	V	$I_F = 100 \text{ mA}$
Reverse current	I_{R1}	—	—	6	μA	$V_R = 10 \text{ V}$
	I_{R2}	—	—	50	μA	$V_R = 30 \text{ V}$
Capacitance	C	—	—	5	pF	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$
Thermal resistance	$R_{th< j-a >}$	—	600	—	°C/W	Polyimide board ^{*1}

Notes: 1. Polyimide board



2. 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

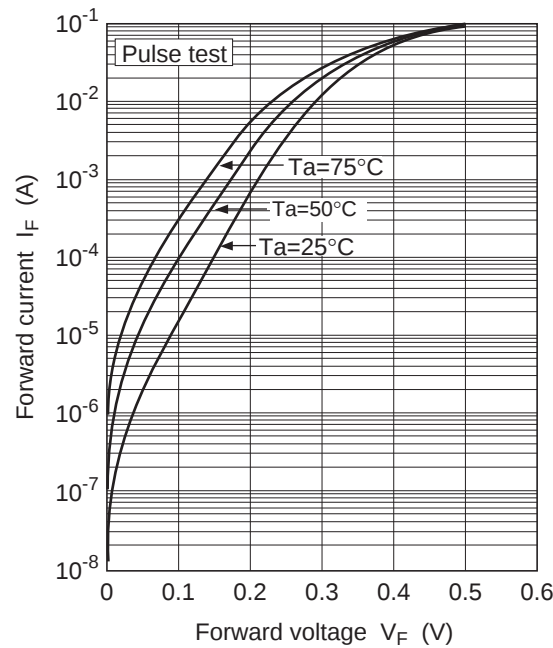


Fig.1 Forward current vs. Forward voltage

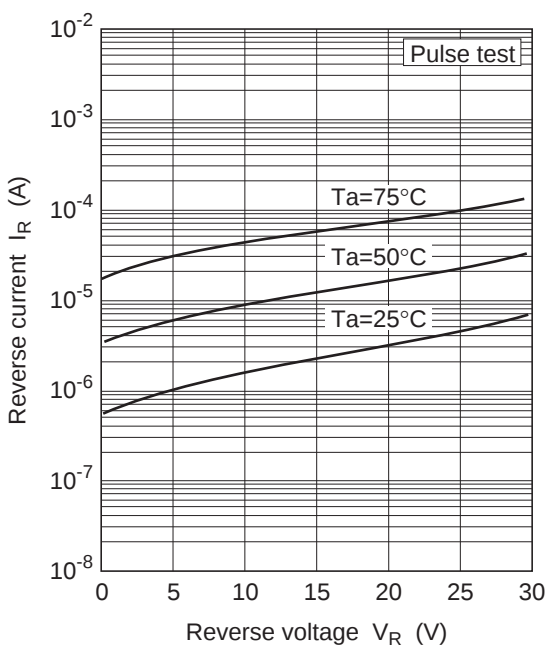


Fig.2 Reverse current vs. Reverse voltage

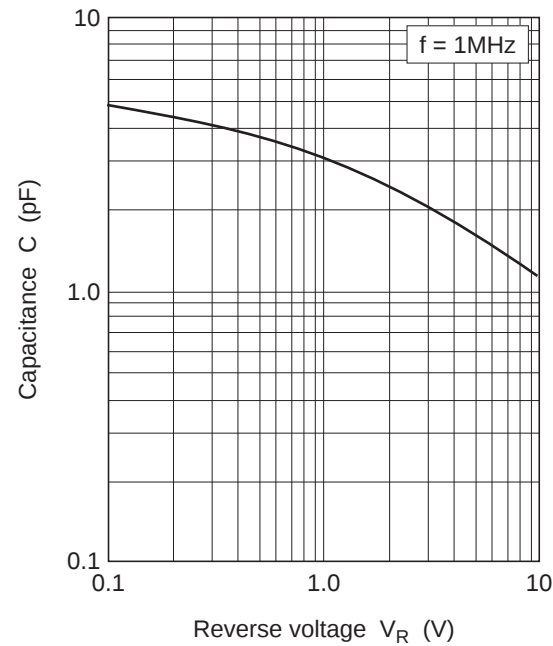


Fig.3 Capacitance vs. Reverse voltage

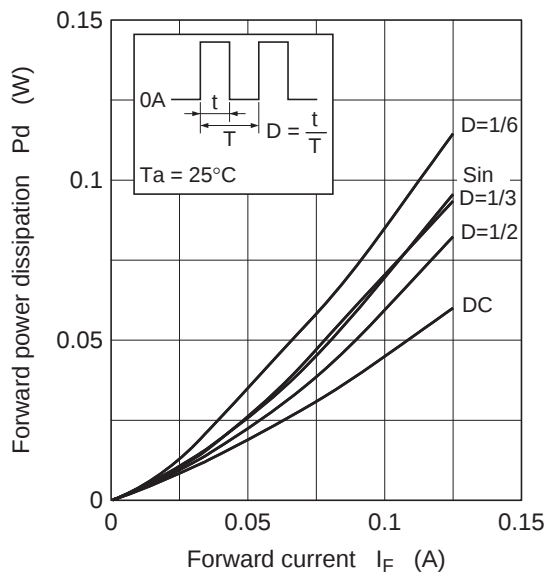


Fig.4 Forward power dissipation vs. Forward current

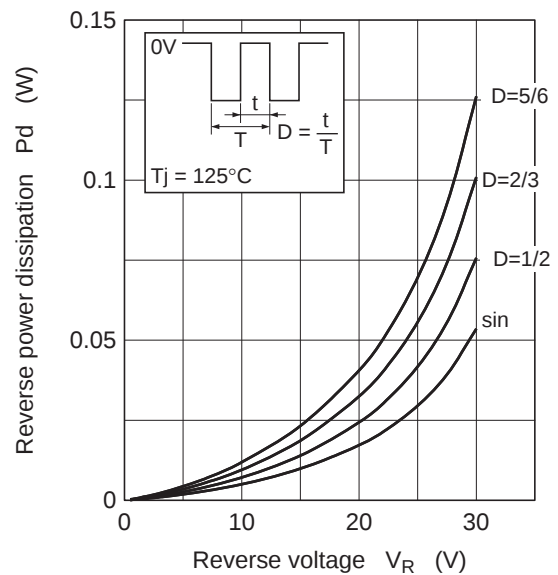


Fig.5 Reverse power dissipation vs. Reverse voltage

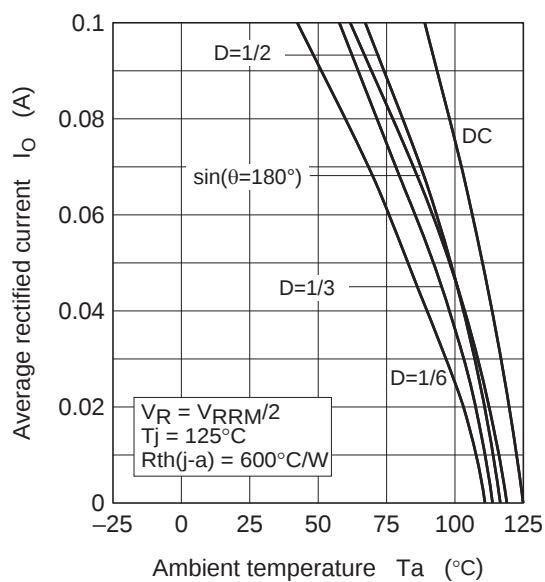
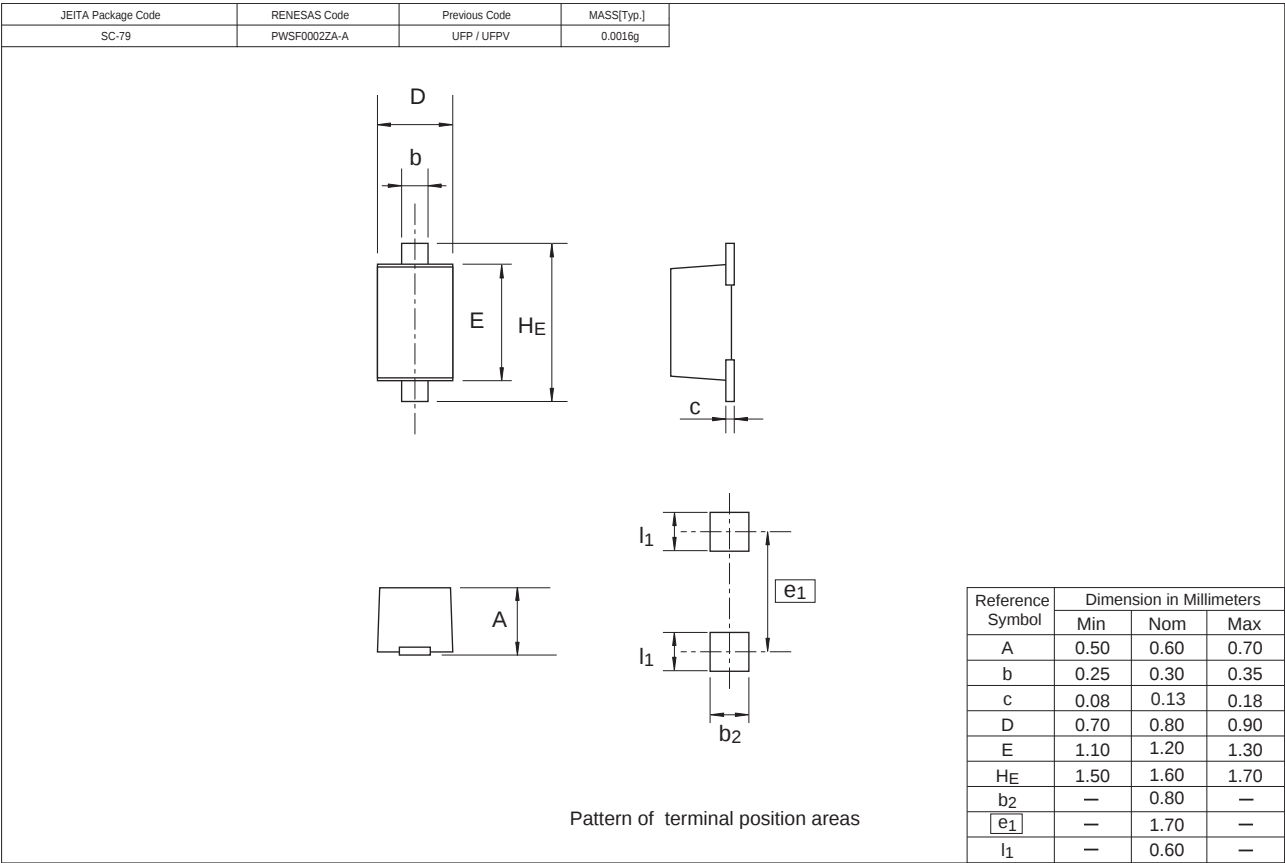


Fig.6 Average rectified current vs. Ambient temperature

Package Dimensions



Notes:

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