HRC0103C

Silicon Schottky Barrier Diode for Rectifying

REJ03G0069-0200
Rev.2.00
Apr 08, 2008

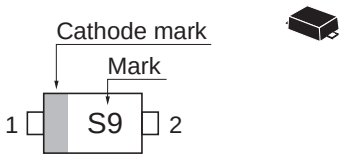
Features

- Low reverse voltage drop and suitable for high efficiency reverse current.
- Ultra small Flat Package (UFP) is suitable for surface mount design.

Ordering Information

Part No.	Laser Mark	Package Name	Package Code
HRC0103C	S9	UFP	PWSF0002ZA-A

Pin Arrangement



1. Cathode
2. Anode

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	V_{RM} *1	30	V
Reverse voltage	V_R	30	V
Average rectified current	I_O *1	100	mA
Peak forward surge current	I_{FM}	300	mA
Non-Repetitive peak forward surge current	I_{FSM} *2	1	A
Junction temperature	Tj	125	°C
Storage temperature	Tstg	–55 to +125	°C

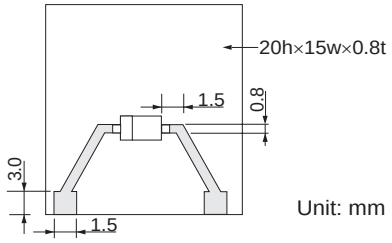
Notes: 1. See from Fig.3 to Fig.5.
2. 10 ms sine wave 1 pulse.

Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_{F1}	—	—	0.40	V	I_F = 10 mA
	V_{F2}	—	—	0.60	V	I_F = 100 mA
Reverse current	I_{R1}	—	—	0.1	μA	V_R = 5 V
	I_{R2}	—	—	0.2		V_R = 10 V
Capacitance	C	—	—	8.0	pF	V_R = 0.5 V, f = 1 MHz
Thermal resistance	Rth(j-a)	—	550	—	°C/W	Polyimide board *1

Note: 1. Polyimide board



Main Characteristic

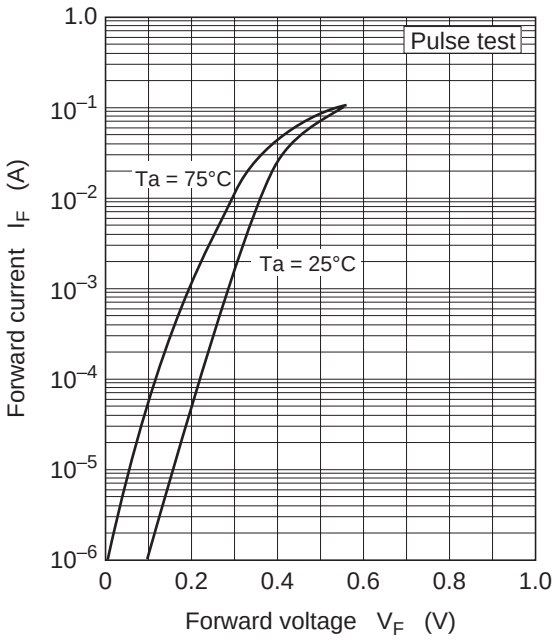


Fig.1 Forward current vs. Forward voltage

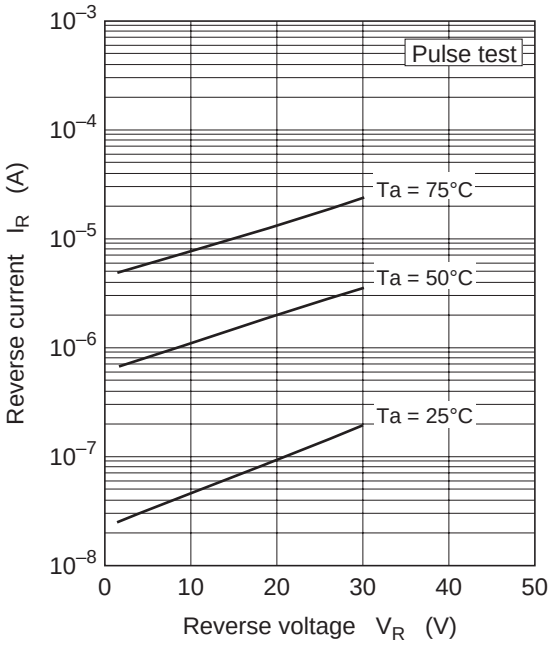


Fig.2 Reverse current vs. Reverse voltage

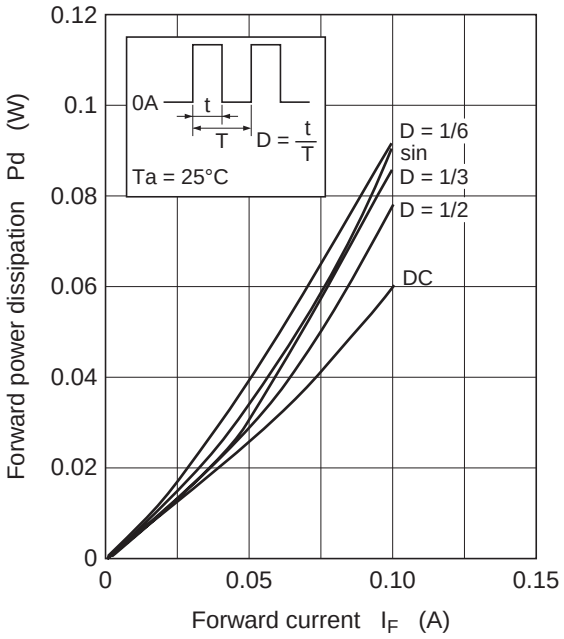


Fig3. Forward power dissipation vs. Forward current

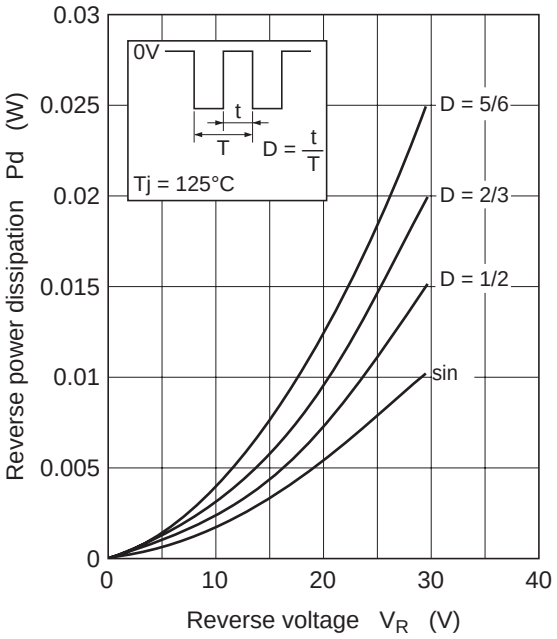


Fig4. Reverse power dissipation vs. Reverse voltage

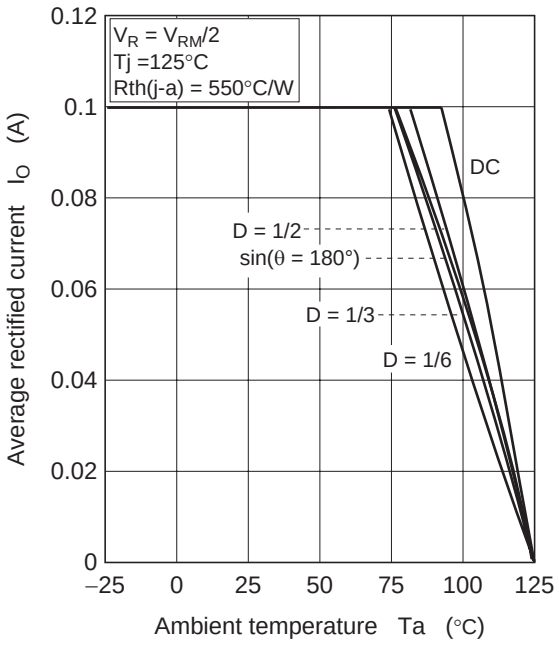
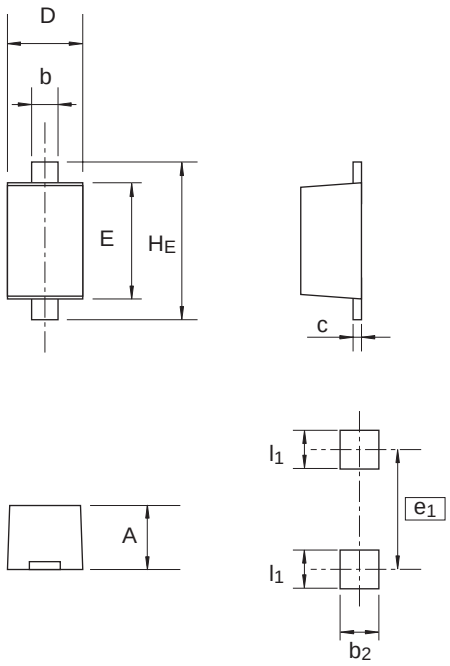


Fig.5 Average rectified current vs. Ambient temperature

Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
UFP	SC-79	PWSF0002ZA-A	UFP / UFPV	0.0016g



Pattern of terminal position areas

Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A	0.50	0.60	0.70
b	0.25	0.30	0.35
c	0.08	0.13	0.18
D	0.70	0.80	0.90
E	1.10	1.20	1.30
H_E	1.50	1.60	1.70
b_2	—	0.80	—
e_1	—	1.70	—
l_1	—	0.60	—

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