RKR104BKV

Silicon Schottky Barrier Diode for Rectifying

REJ03G1775-0100
Rev.1.00
Jul 13, 2010

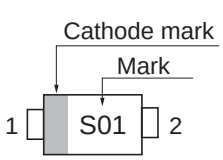
Features

- Low reverse current and suitable for high efficiency rectifying.
- Halogen free, environmental friendly package includes conformity to RoHS directive.
- Small Resin Package Flat lead type (SRP-F) is suitable for compact and high-density surface mount design.

Ordering Information

Part No	Laser Mark	Package Name	Package Code	Taping Abbreviation (Quantity)
RKR104BKV P	S01	SRP-F	PWSF0002ZB-A	P (3,000pcs / reel)

Pin Arrangement



1. Cathode
2. Anode

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Repetitive peak reverse voltage	V_{RRM}	40	V
Reverse voltage	V_R	40	V
Average rectified current	I_O *2	1	A
Non-Repetitive peak forward surge current	I_{FSM} *1	5	A
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

Notes: 1. 10 ms sine wave 1 pulse

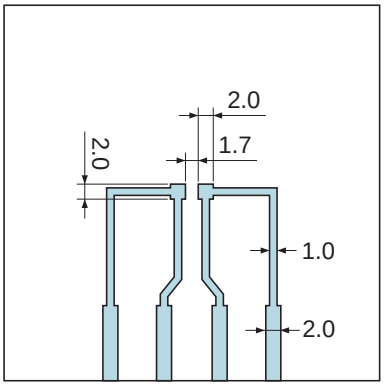
2. Ta = 36°C, With Ceramics board (board size: 50 mm × 50 mm, Land size 2 mm × 2 mm)
Short form wave (θ180°C), V_R = 20 V.

Electrical Characteristics *1

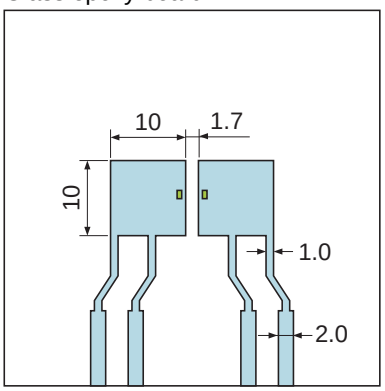
(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_{F1}	—	—	0.37	V	I_F = 100 mA
	V_{F2}	—	—	0.55		I_F = 700 mA
Reverse current	I_{R1}	—	—	10	μA	V_R = 5 V
	I_{R2}	—	—	50		V_R = 40 V
Capacitance	C	—	—	35	pF	V_R = 10 V, f = 1 MHz
Thermal resistance	Rth(j-a)	—	100	—	°C/W	Ceramics board *1
		—	200	—		Glass epoxy board *2

Notes: 1. Ceramics board : 50h × 50w × 0.8t (mm)



2. Glass epoxy board



Main Characteristic

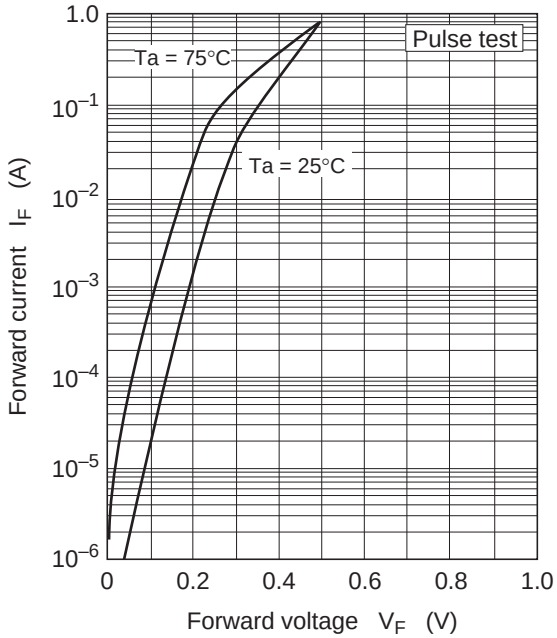


Fig.1 Forward current vs. Forward voltage

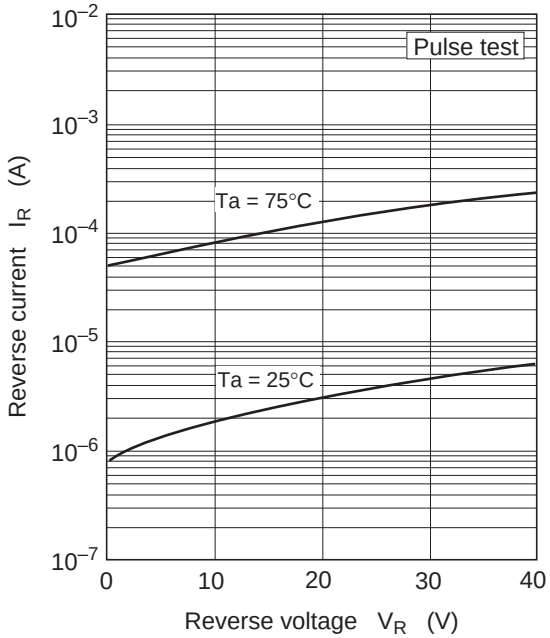


Fig.2 Reverse current vs. Reverse voltage

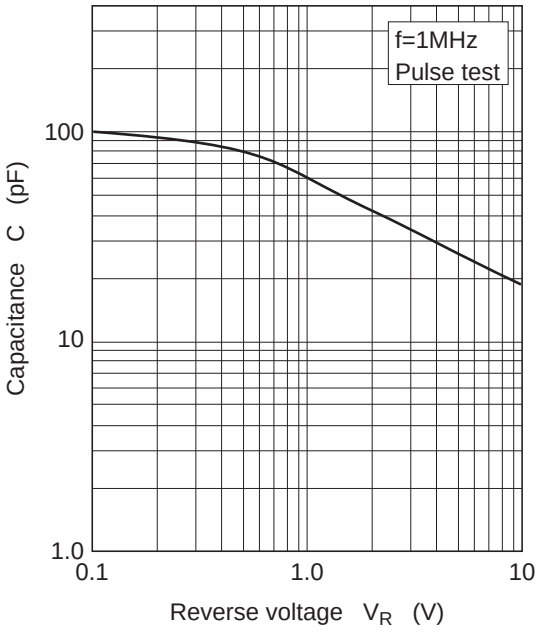


Fig.3 Capacitance vs. Reverse voltage

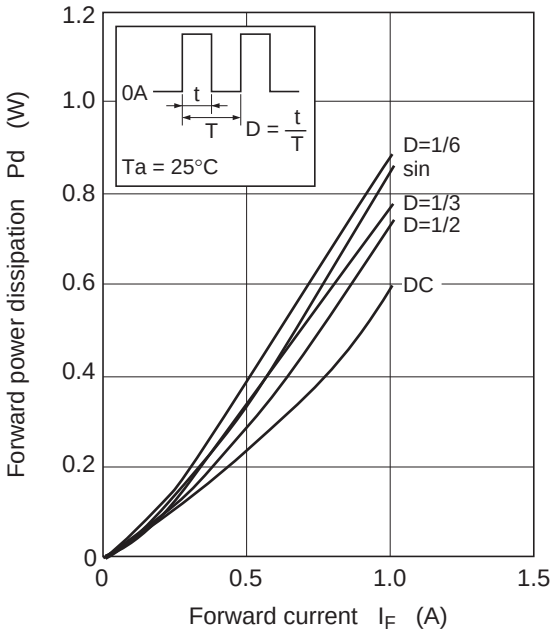


Fig.4 Forward power dissipation vs. Forward current

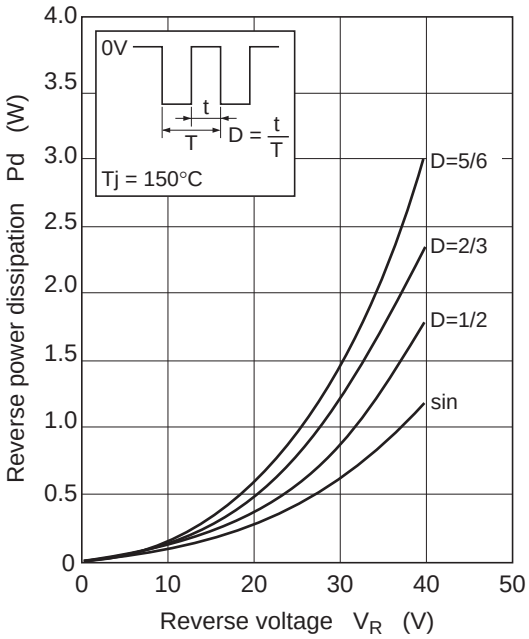


Fig.5 Reverse power dissipation vs. Reverse voltage

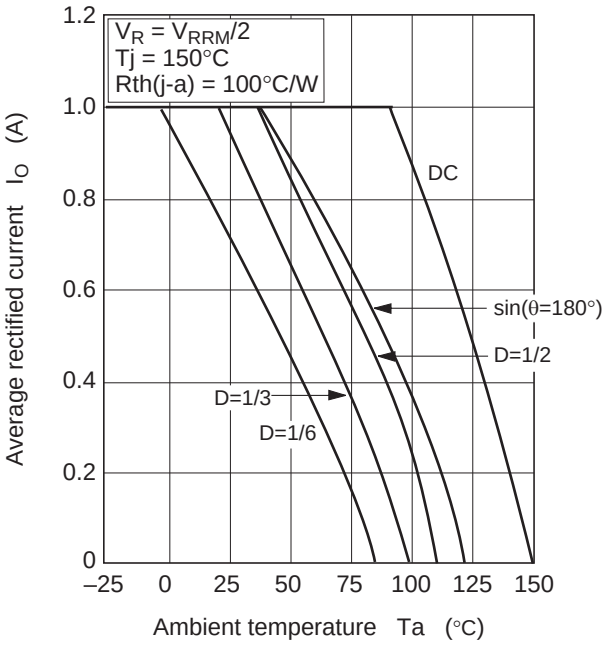
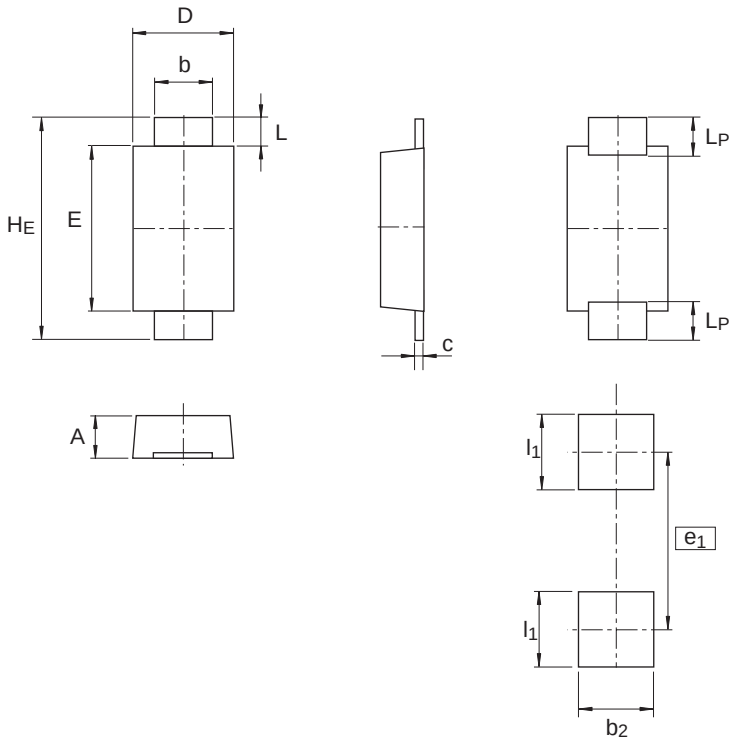


Fig.6 Average rectified current vs. Ambient temperature

Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
SRP-F	—	PWSF0002ZB-A	SRP-FV	0.0084g



Pattern of terminal position areas

Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A	0.6	0.7	0.8
b	0.8	0.9	1.0
c	0.08	0.13	0.18
D	1.5	1.6	1.7
E	2.5	2.6	2.7
H_E	3.3	3.5	3.7
L	0.35	0.45	0.55
L_P	—	0.6	—
b_2	—	1.2	—
e_1	—	2.8	—
l_1	—	1.2	—

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