

RKS101KG

Silicon Epitaxial Planar Diode for High Voltage Switching

REJ03G1758-0100

Rev.1.00

Nov 28, 2008

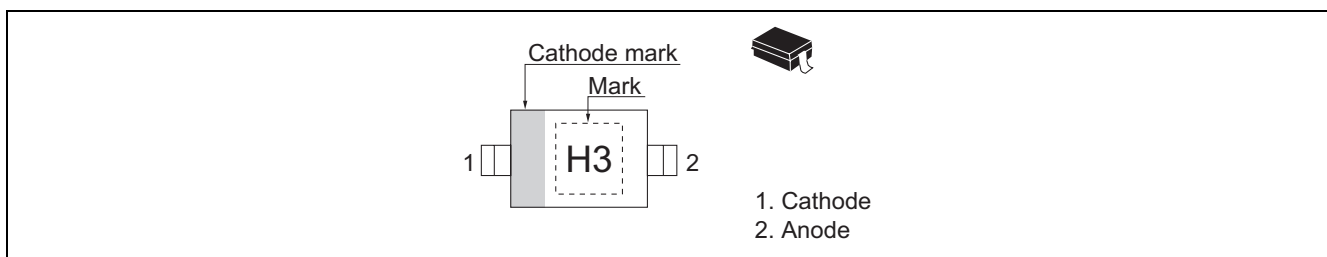
Features

- Short reverse recovery time enable fast switching.
- Ultra small Resin Package (URP) is suitable for compact and high-density surface mount design.

Ordering Information

Part No.	Laser Mark	Package Name	Package Code
RKS101KG	H3	URP	PTSP0002ZA-A

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	V_{RM}	420	V
Reverse voltage	V_R	400	V
Peak forward current	I_{FM}	300	mA
Non-Repetitive peak forward surge current	I_{FSM}^{*1}	2	A
Average rectified current	I_O^{*2}	100	mA
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

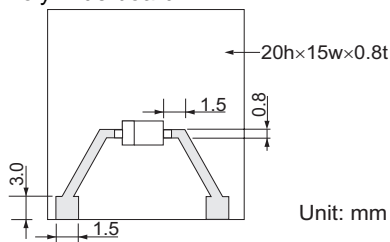
Notes: 1. 10 ms sine wave 1 pulse.
2. See from Fig.4 to Fig.6.

Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_F	—	—	1.5	V	$I_F = 100 \text{ mA}$
Reverse current	I_R	—	—	10	μA	$V_R = 400 \text{ V}$
Capacitance	C	—	—	3	pF	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$
Reverse recovery time	t_{rr}	—	—	100	ns	$I_F = I_R = 30 \text{ mA}, I_{rr} = 3 \text{ mA}, R_L = 50 \Omega$
Thermal resistance	$R_{th(j-a)}$	—	600	—	°C/W	Polyimide board ^{*1}

Note: 1. Polyimide board



Main Characteristics

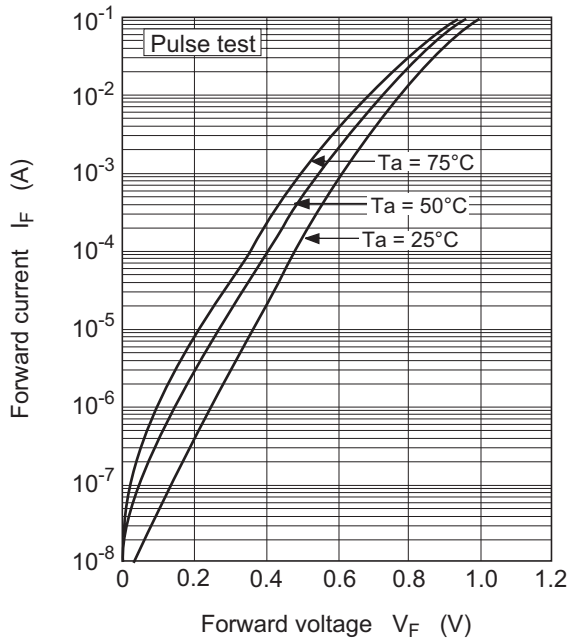


Fig.1 Forward current vs. Forward voltage

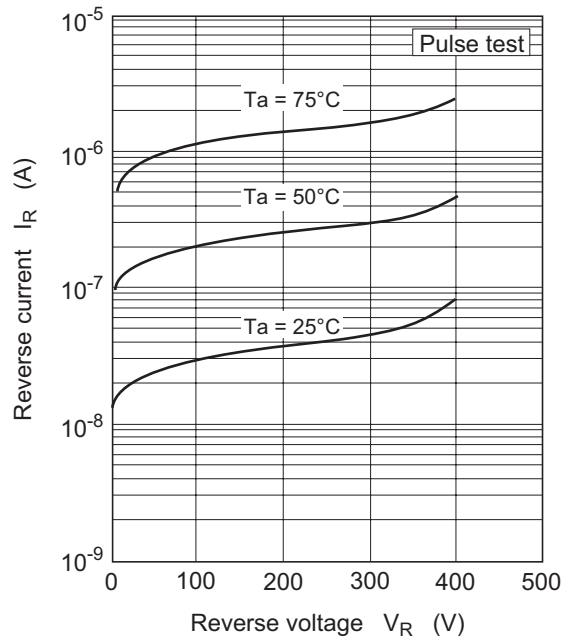


Fig.2 Reverse current vs. Reverse voltage

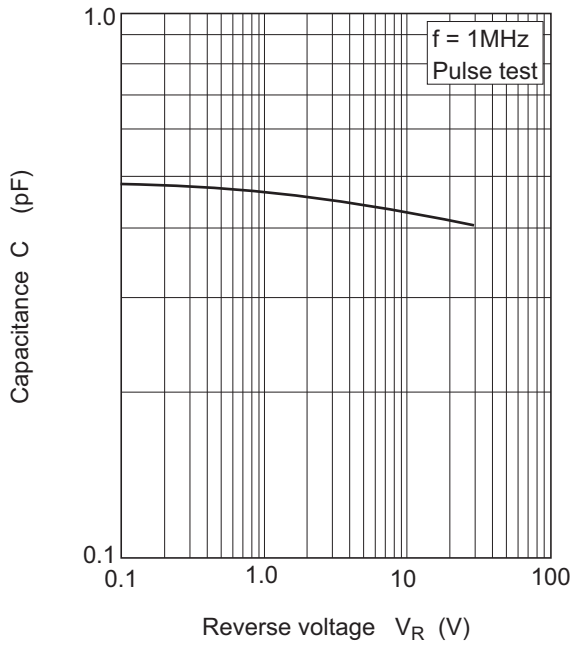


Fig.3 Capacitance vs. Reverse voltage

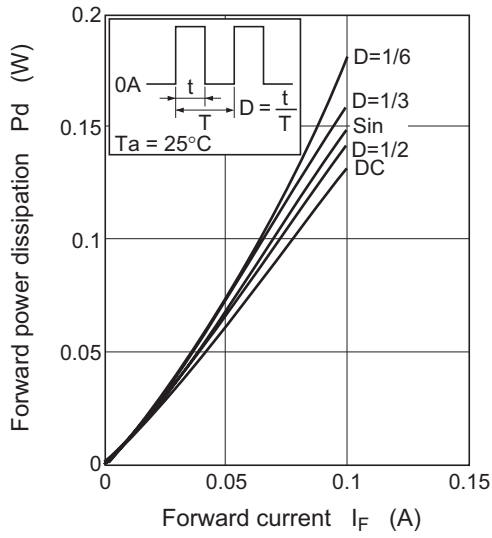


Fig.4 Forward power dissipation vs. Forward current

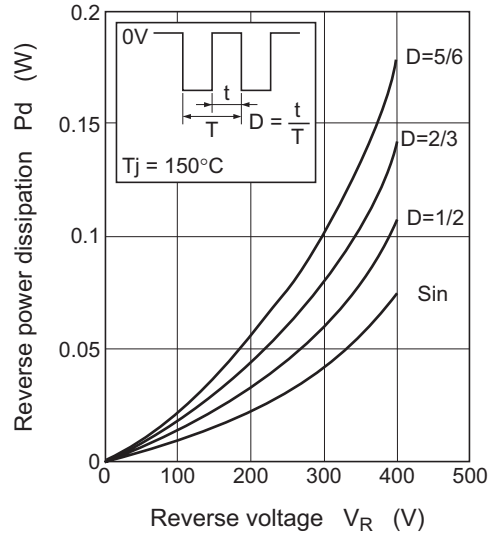


Fig.5 Reverse power dissipation vs. Reverse voltage

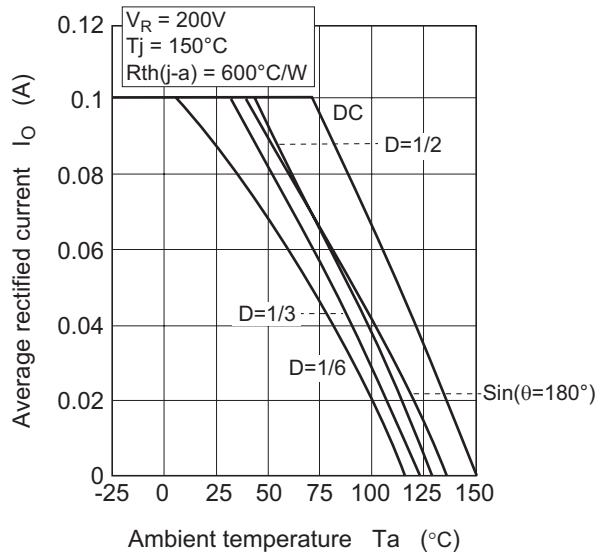
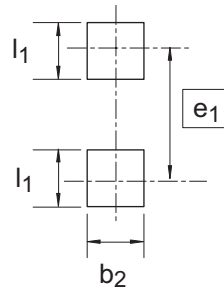
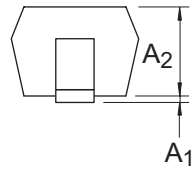
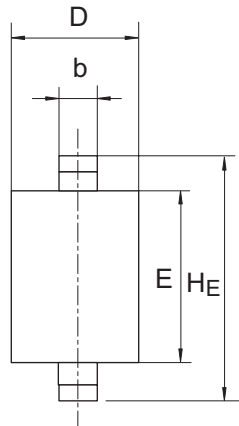


Fig.6 Average rectified current vs. Ambient temperature

Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
URP	SC-76A	PTSP0002ZA-A	URP / URPV	0.004g



Pattern of terminal position areas

Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A ₁	0	-	0.1
A ₂	0.75	0.90	1.05
b	0.15	0.30	0.45
D	1.10	1.25	1.40
E	1.55	1.70	1.85
HE	2.35	2.50	2.65
b ₂	-	0.80	-
e ₁	-	2.30	-
l ₁	-	0.80	-

Notes:

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