

RKS100KG

Silicon Epitaxial Planar Diode for High Speed Switching

REJ03G1698-0100
Rev.1.00
Jul 03, 2008

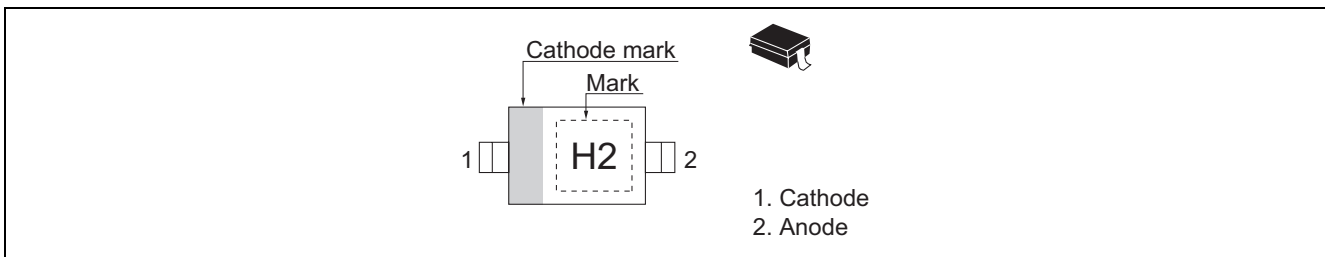
Features

- Low capacitance. ($C = 2.0$ pF max)
- Short reverse recovery time. ($t_{rr} = 3.0$ ns max)
- Ultra small Resin Package (URP) is suitable for high density surface mounting and high speed assembly.

Ordering Information

Part No.	Laser Mark	Package Name	Package Code
RKS100KG	H2	URP	PTSP0002ZA-A

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	V_{RM}	85	V
Reverse voltage	V_R	80	V
Forward current	I_F^{*1}	200	mA
Non-Repetitive peak forward surge current	I_{FSM}^{*2}	4	A
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

Notes: 1. Forward current with mounting on the board of Figure 1.
 2. Within 1 μ s forward surge current.

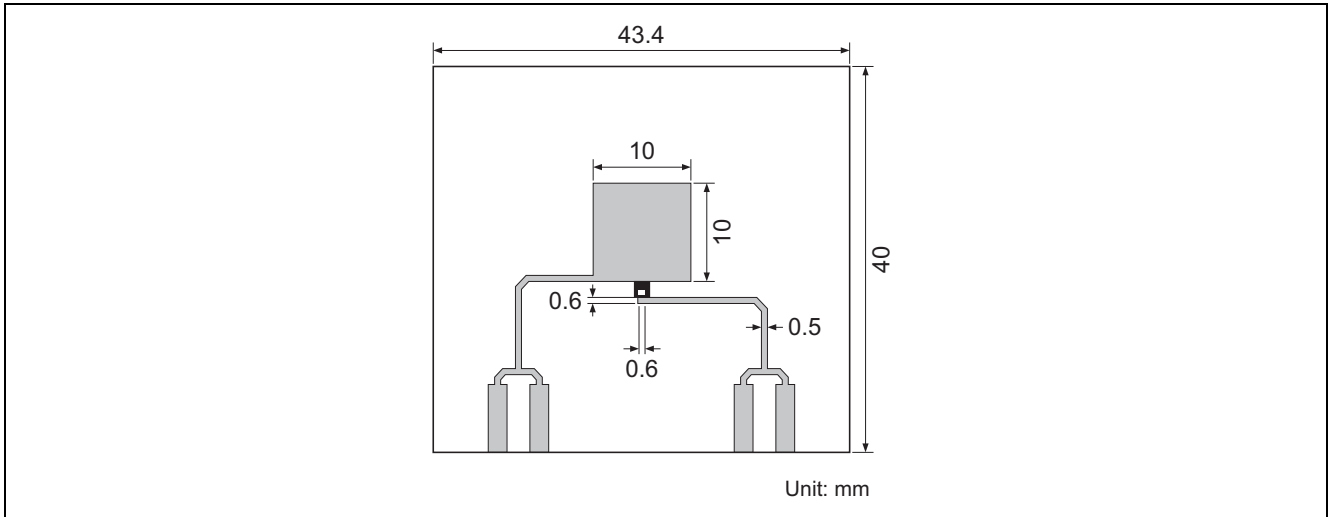


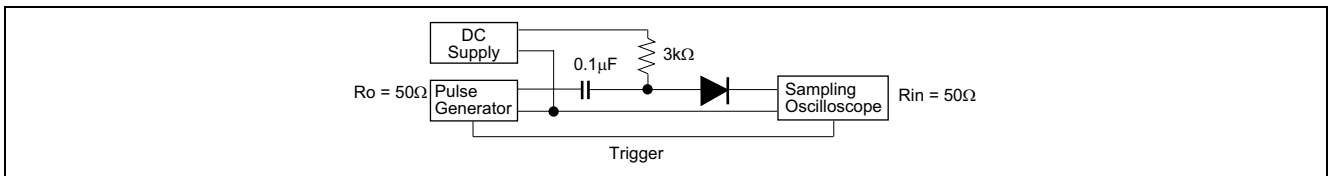
Figure 1 Board

Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_{F1}	—	—	0.8	V	$I_F = 10$ mA
	V_{F2}	—	—	1.2		$I_F = 100$ mA
Reverse current	I_R	—	—	0.1	μ A	$V_R = 80$ V
Capacitance	C	—	—	2.0	pF	$V_R = 0$ V, $f = 1$ MHz
Reverse recovery time* ¹	t_{rr}	—	—	3.0	ns	$I_F = 10$ mA, $V_R = 6$ V, $R_L = 50$ Ω

Note: 1. Reverse recovery time test circuit



Main Characteristics

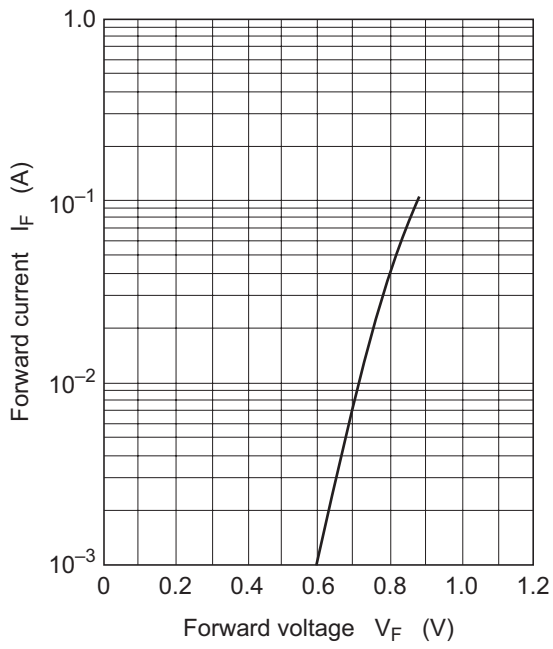


Fig.1 Forward current vs. Forward voltage

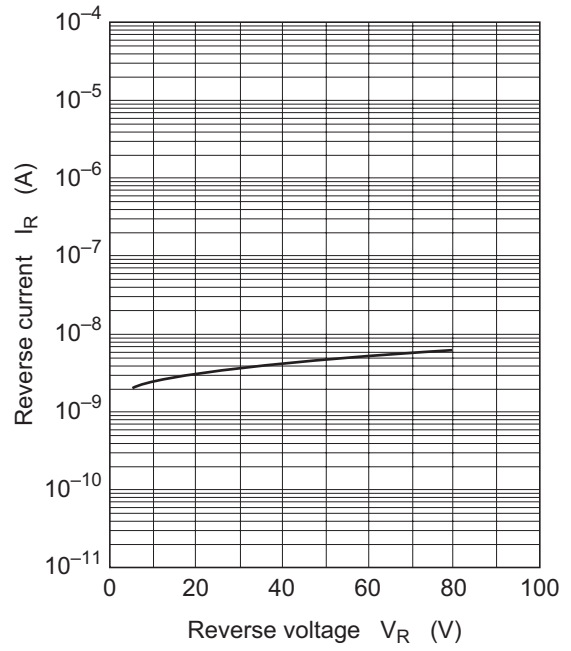


Fig.2 Reverse current vs. Reverse voltage

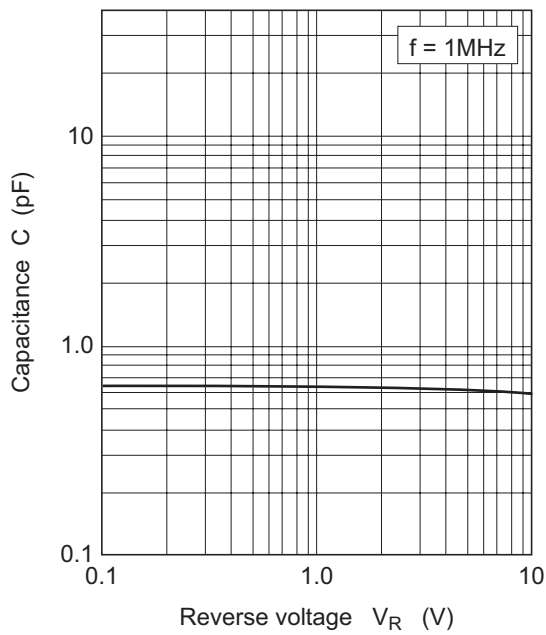
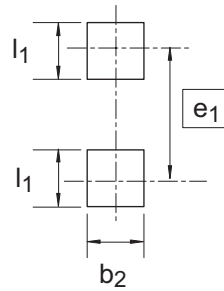
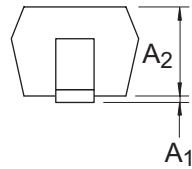
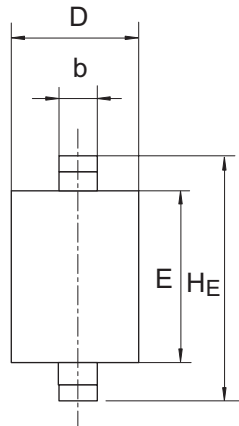


Fig.3 Capacitance vs. Reverse voltage

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
H _E	2.35	2.50	2.65
b ₂	-	0.80	-
e ₁	-	2.30	-
l ₁	-	0.80	-

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April 1st, 2010
Renesas Electronics Corporation

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