

# RKS100KG

## Silicon Epitaxial Planar Diode for High Speed Switching

REJ03G1698-0100

Rev.1.00

Jul 03, 2008

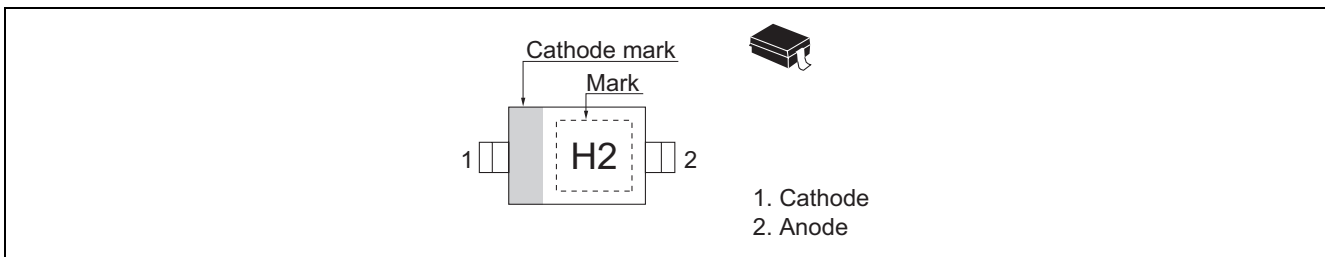
### Features

- 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  $\mu$ s forward surge current.

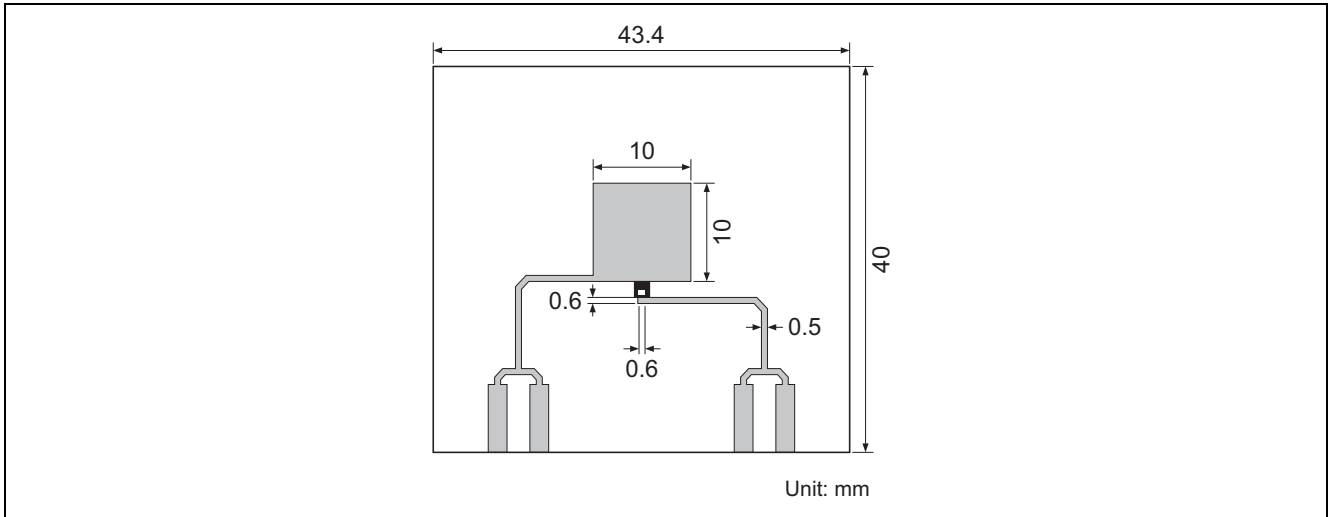


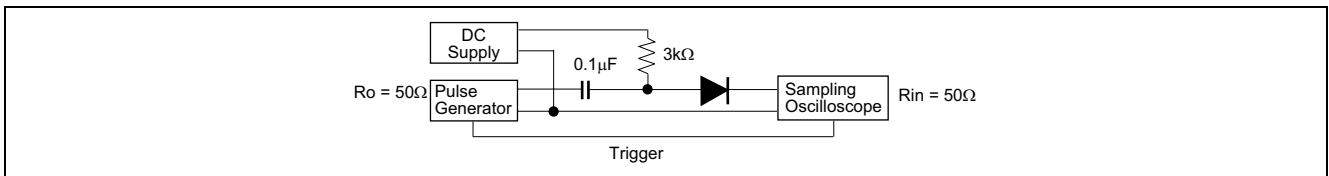
Figure 1 Board

### 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	$\mu$ A	$V_R = 80$ V
Capacitance	C	—	—	2.0	pF	$V_R = 0$ V, $f = 1$ MHz
Reverse recovery time* <sup>1</sup>	$t_{rr}$	—	—	3.0	ns	$I_F = 10$ mA, $V_R = 6$ V, $R_L = 50 \Omega$

Note: 1. Reverse recovery time test circuit



Main Characteristics

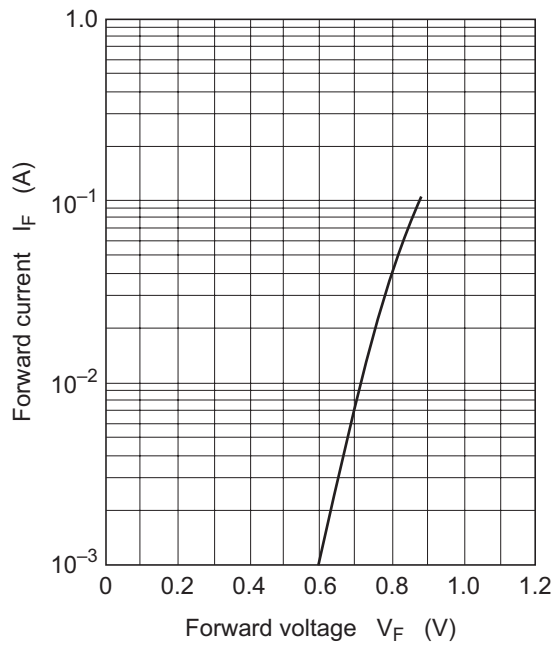


Fig.1 Forward current vs. Forward voltage

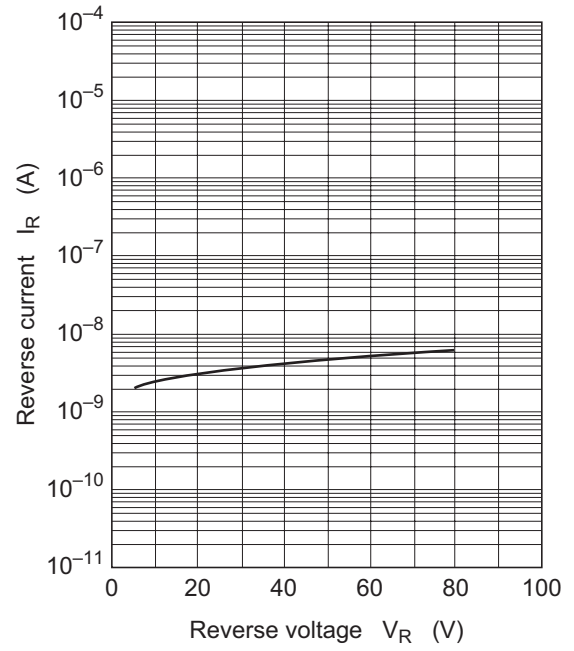


Fig.2 Reverse current vs. Reverse voltage

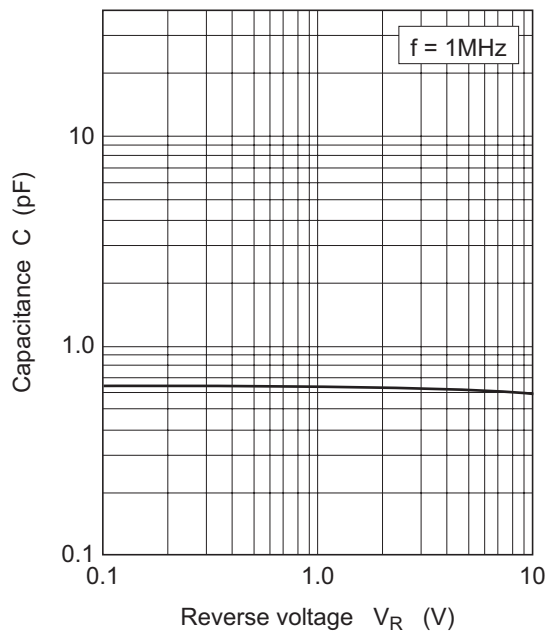
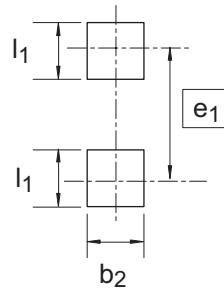
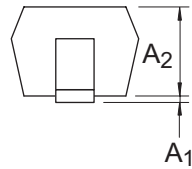
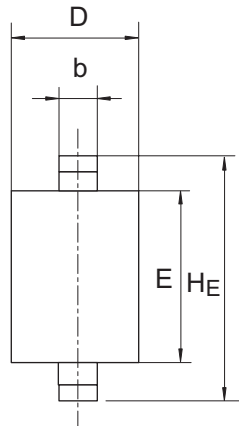


Fig.3 Capacitance vs. Reverse voltage

### 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 <sub>1</sub>	0	-	0.1
A <sub>2</sub>	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 <sub>E</sub>	2.35	2.50	2.65
b <sub>2</sub>	-	0.80	-
e <sub>1</sub>	-	2.30	-
l <sub>1</sub>	-	0.80	-

Notes:

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