

RKH0125AKF

Silicon Epitaxial Planar Diode
for High Voltage switching

R07DS0412EJ0100
Rev.1.00
May 16, 2011

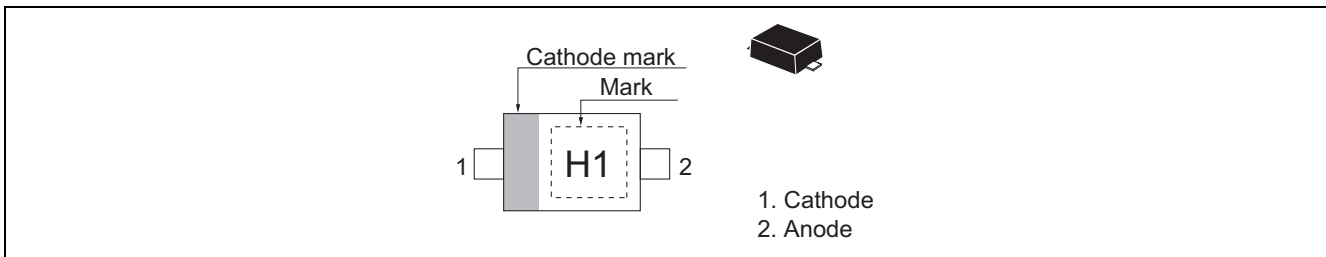
Features

- Low Capacitance. ($C \leq 3.0$ pF)
- Short reverse recovery time ($t_{rr} \leq 100$ ns)
- Ultra small Resin Package (URP-F) is suitable for compact and high-density surface mount design.

Ordering Information

Part No	Laser Mark	Package Name	Package Code	Taping Abbreviation (Quantity)
RKH0125AKF P	H1	URP-F	PWSF0002ZC-A	P (3,000 pcs / reel)

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	V_{RM}	300	V
Reverse voltage	V_R	250	V
Average forward current	I_{FM}	300	mA
Peak forward current	I_{FSM}^{*1}	1	A
Non-Repetitive peak forward current	I_o	100	mA
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

Note: 1. Forward surge within 10msec duration.

Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_F	—	—	1.2	V	$I_F = 100\text{mA}$
Reverse current	I_{R1}	—	—	200	nA	$V_R = 250\text{V}$
	I_{R2}	—	—	100	μA	$V_R = 300\text{V}$
Capacitance	C	—	—	3.0	pF	$V_R = 0\text{V}$, $f = 1\text{MHz}$
Reverse recovery time	trr	—	—	100	ns	$I_F = I_R = 30\text{mA}$, $I_{rr} = 3\text{mA}$

Main Characteristics

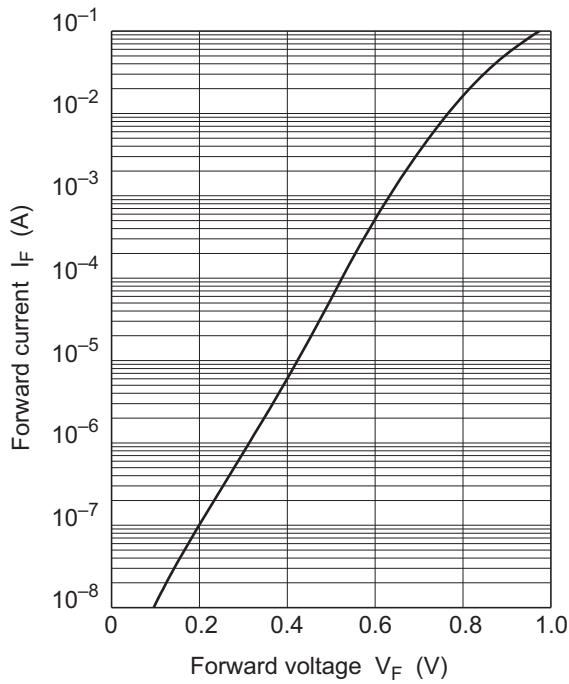


Fig.1 Forward current vs. Forward voltage

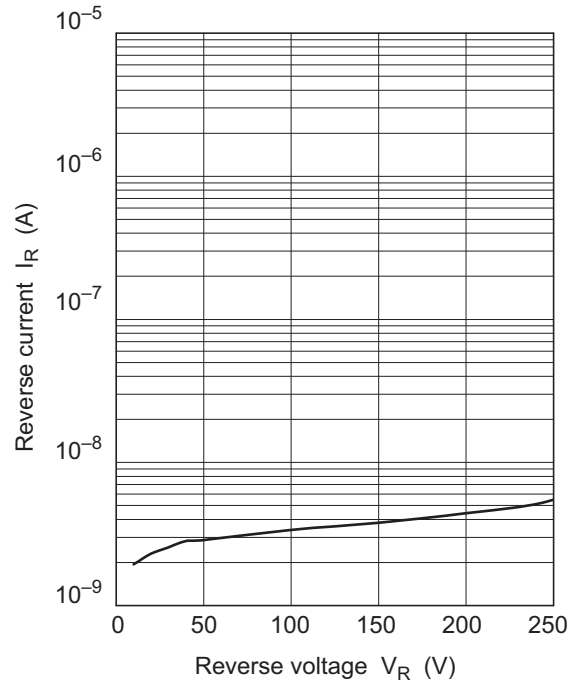


Fig.2 Reverse current vs. Reverse voltage

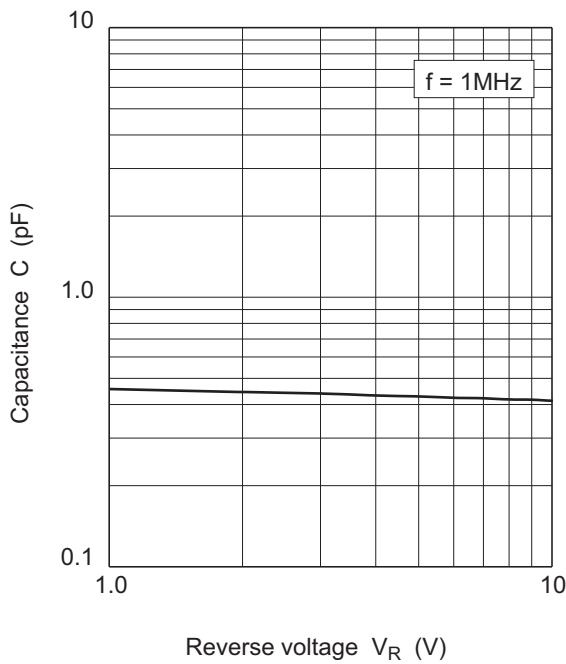
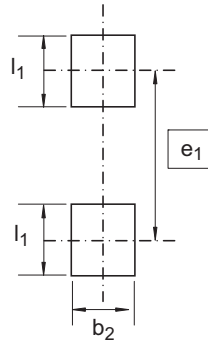
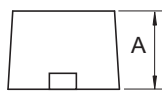
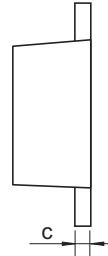
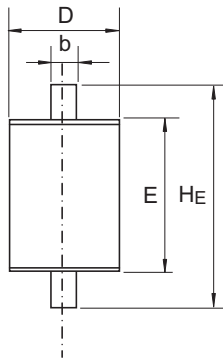


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
URP-F	—	PWSF0002ZC-A	URP-F / URP-FV	0.004g



Pattern of terminal position areas

Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A	0.6	0.7	0.8
b	0.27	0.32	0.37
c	0.08	0.13	0.18
D	1.25	1.35	1.45
E	1.6	1.7	1.8
HE	2.4	2.5	2.6
b2	-	0.8	-
e1	-	2.1	-
l1	-	0.9	-

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