

# RKH0145AKG

R07DS0512EJ0100

Rev.1.00

## Silicon Epitaxial Planar Diode for High Voltage Switching

Sep 13, 2011

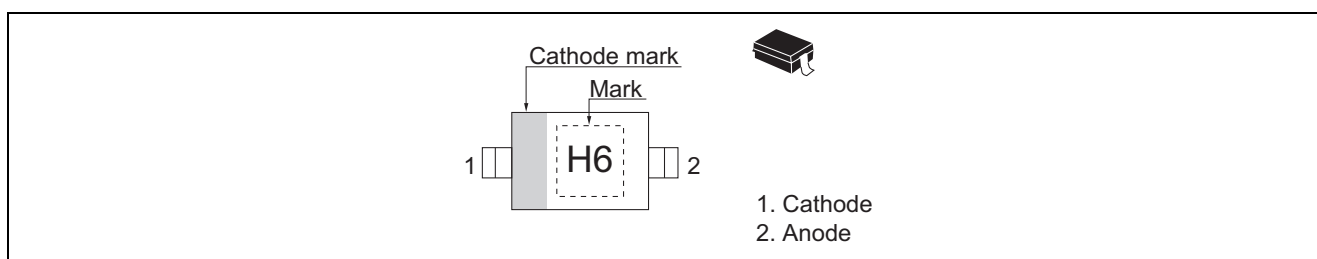
### Features

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

### Ordering Information

Part No	Laser Mark	Package Name	Package Code	Taping Abbreviation (Quantity)
RKH0145AKG P	H6	URP	PTSP0002ZA-A	P (3,000 pcs / reel)

### Pin Arrangement



## Absolute Maximum Ratings <sup>\*1</sup>

(Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	$V_{RM}$	450	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	$I_O$	100	mA
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

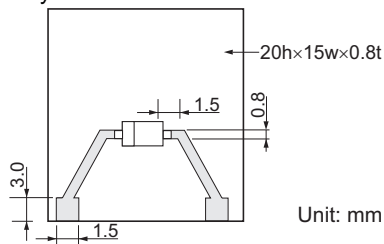
Notes: 1. Forward surge within 10msec duration.  
 2. See from Fig.4 to Fig. 7

## 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	$\mu\text{A}$	$V_R = 400 \text{ V}$
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 <sup>*1</sup>

Note: 1. Polyimide board



## Main Characteristics

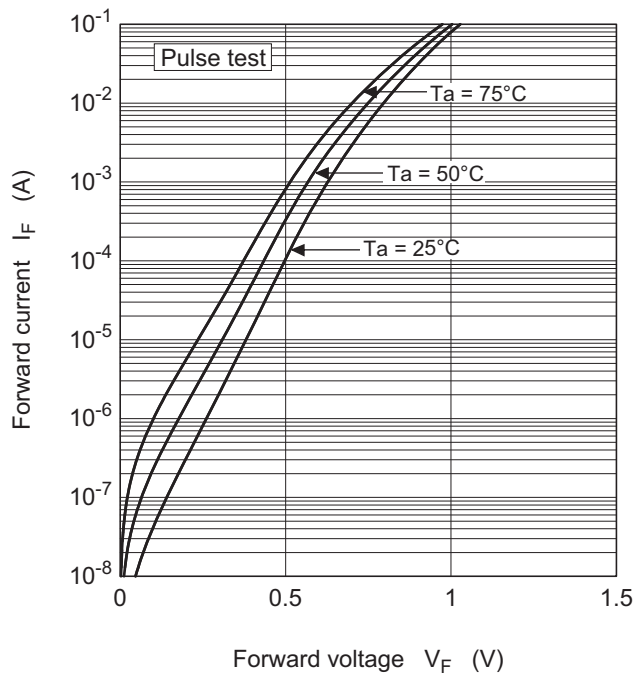


Fig.1 Forward current vs. Forward voltage

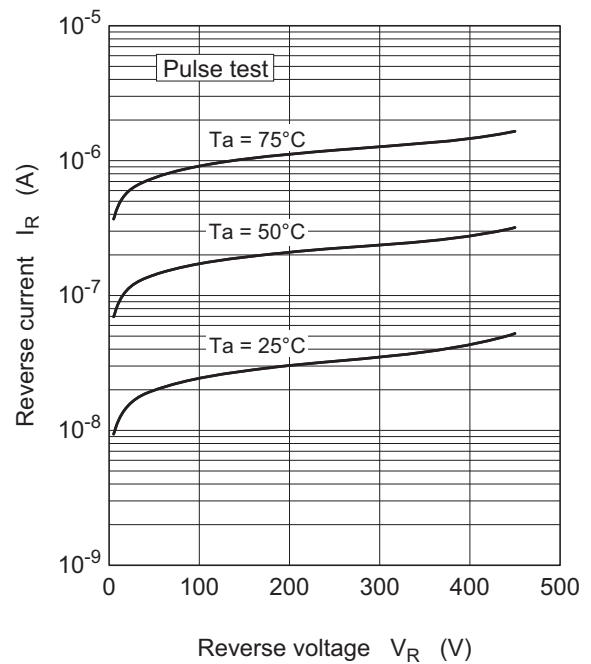


Fig.2 Reverse current vs. Reverse voltage

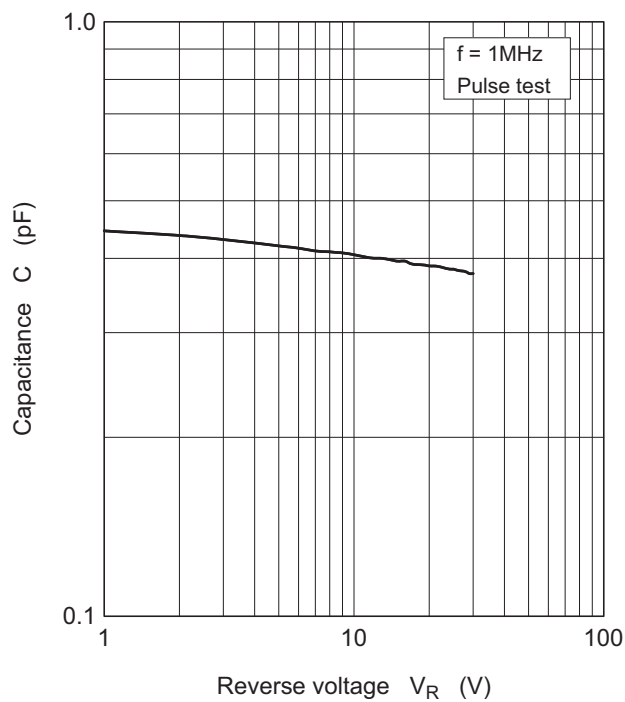


Fig.3 Capacitance vs. Reverse voltage

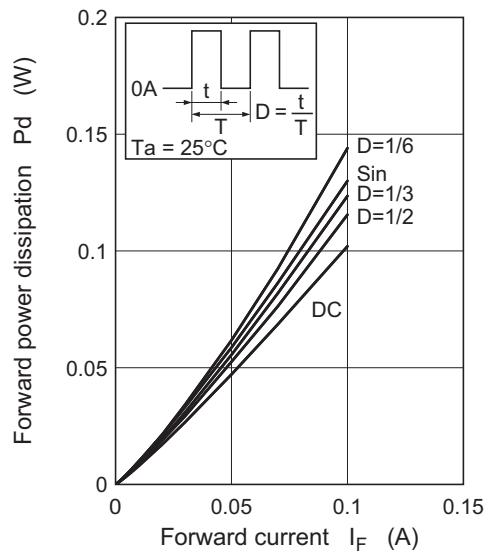


Fig.4 Forward power dissipation vs. Forward current

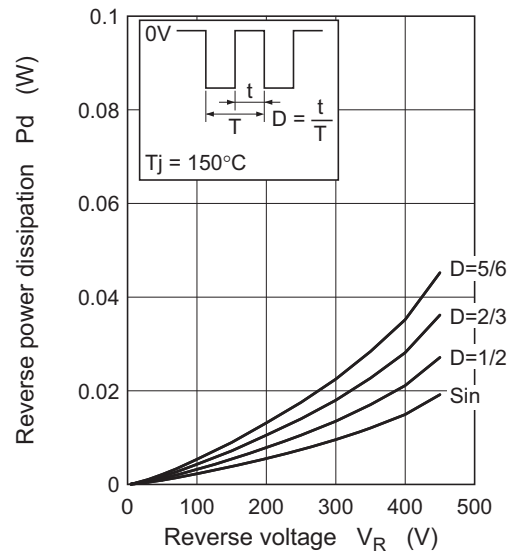


Fig.5 Reverse power dissipation vs. Reverse voltage

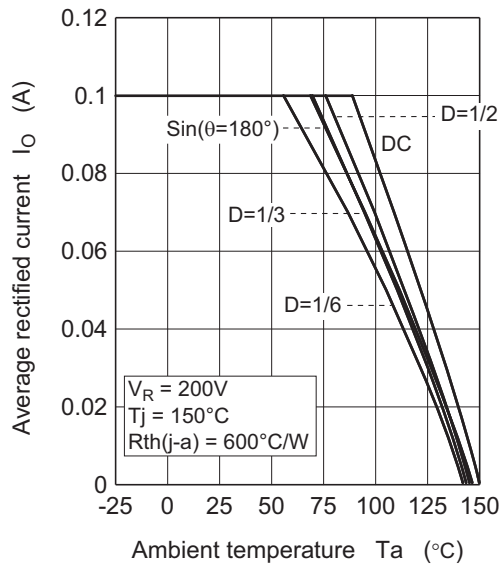


Fig.6 Average rectified current vs. Ambient temperature

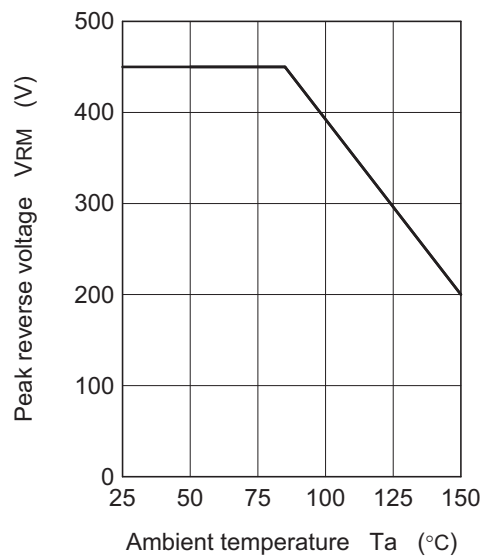
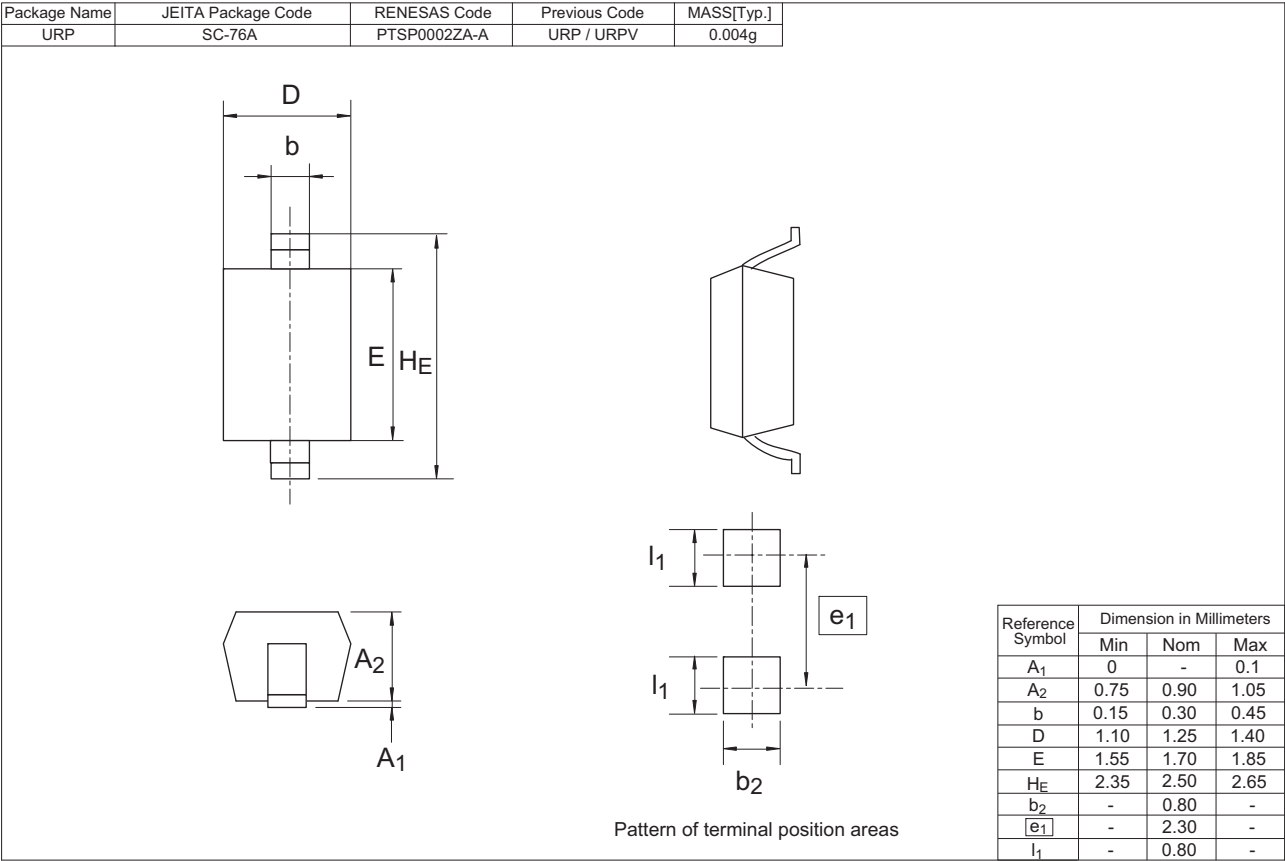


Fig.7 Peak reverse voltage vs. Ambient temperature

Package Dimensions



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