

To our customers,

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## Old Company Name in Catalogs and Other Documents

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Renesas Electronics website: <http://www.renesas.com>

April 1<sup>st</sup>, 2010  
Renesas Electronics Corporation

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# RKH0160AKU

## Silicon Epitaxial Planar Diode for High Voltage Switching

REJ03G1893-0100

Rev.1.00

Feb 04, 2010

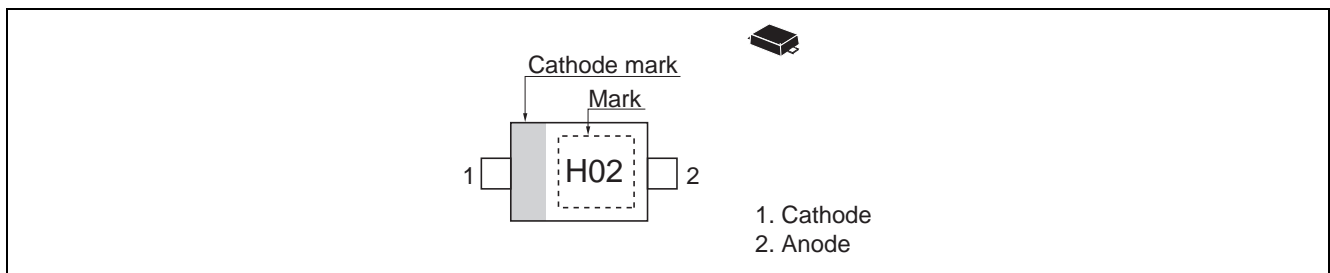
### Features

- 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)
RKH0160AKU P	H02	TURP-FM	PUSF0002ZD-A	P (4,000 pcs / reel)
RKH0160AKU R				R (8,000 pcs / reel)

### Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	$V_{RM}$	600	V
Peak forward current	$I_{FM}$	600	mA
Non-Repetitive peak forward surge current	$I_{FSM}^{*1}$	2	A
Average rectified current	$I_o^{*2}$	200	mA
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

Notes: 1. 10 ms Sine Wave 1 pulse

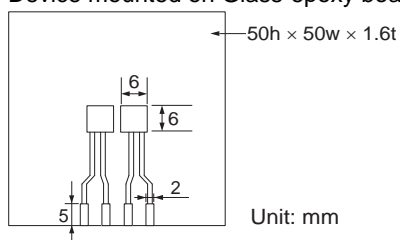
2. See from Fig.4 to Fig.6

## Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	$I_R$	—	—	10	$\mu A$	$V_R = 600 V$
Forward voltage	$V_F$	—	—	2	V	$I_F = 200 mA$
Capacitance	C	—	—	1.5	pF	$V_R = 0 V, f = 1 MHz$
Reverse recovery time	$t_{rr}$	—	—	70	ns	$I_F = I_R = 30 mA, I_{rr} = 3 mA, R_L = 50 \Omega$
Thermal resistance	$R_{th(j-a)}$	—	250	—	°C/W	Glass-epoxy board <sup>*1</sup>

Notes: 1. Device mounted on Glass-epoxy board (board size: 50 mm × 50 mm, land size: 6 mm × 6 mm)



Main Characteristics

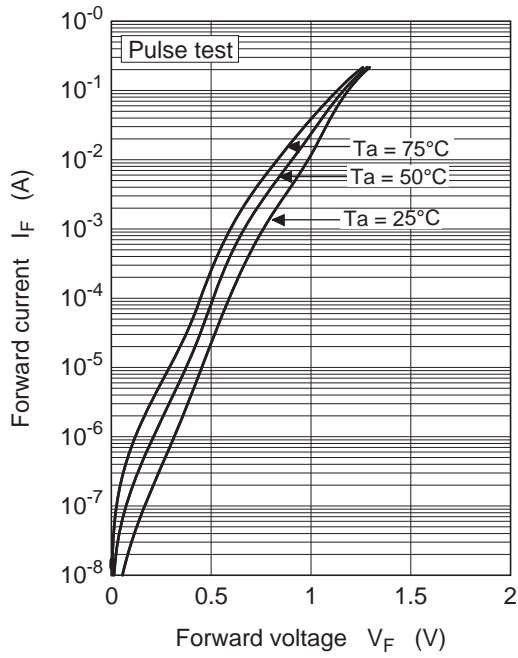


Fig.1 Forward current vs. Forward voltage

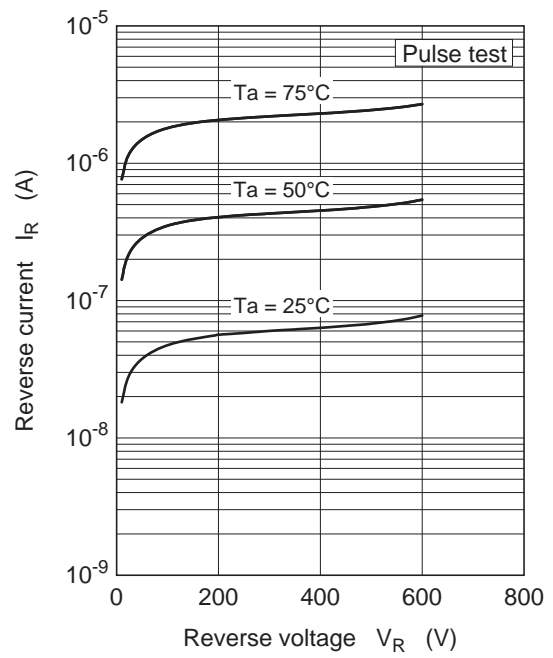


Fig.2 Reverse current vs. Reverse voltage

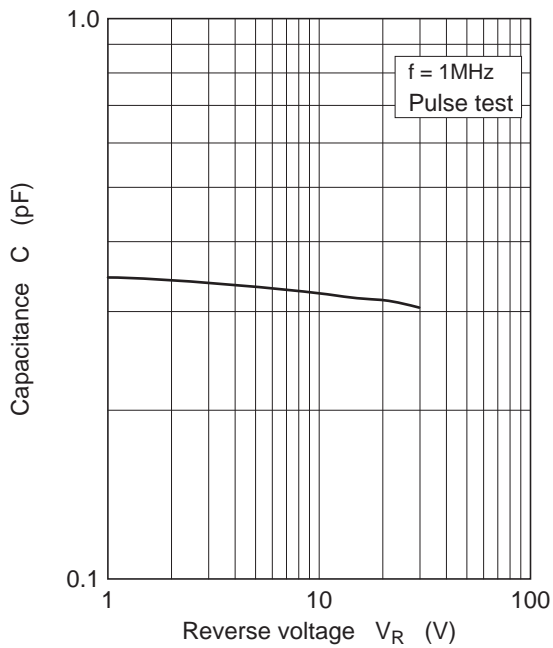


Fig.3 Capacitance vs. Reverse voltage

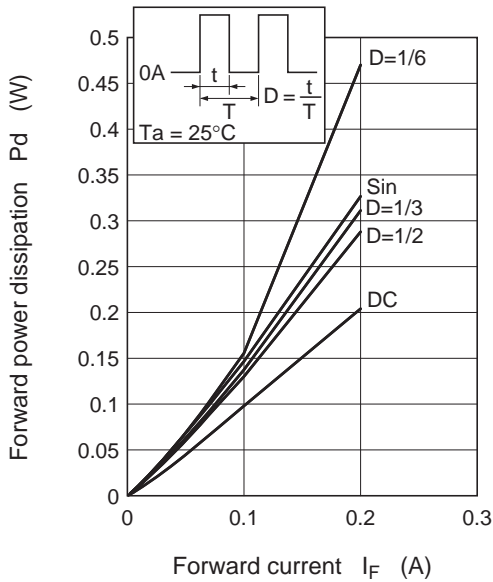


Fig.4 Forward power dissipation vs. Forward current

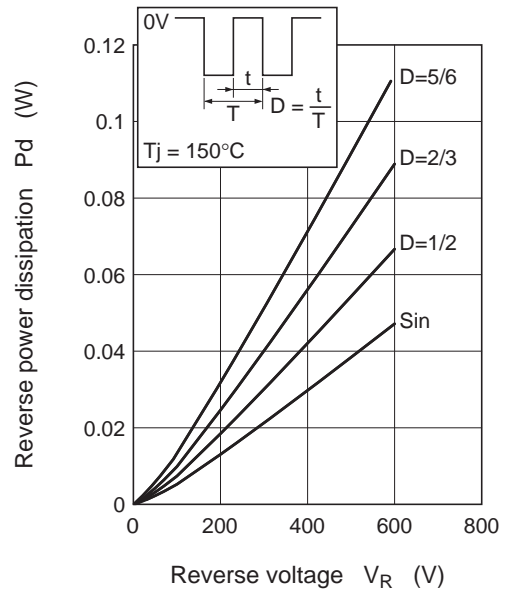


Fig.5 Reverse power dissipation vs. Reverse voltage

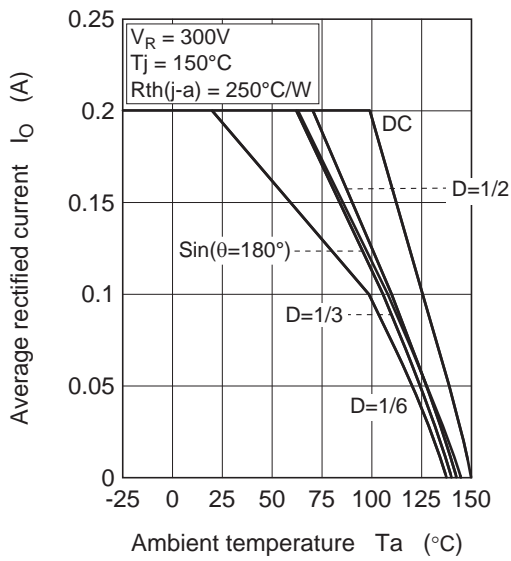


Fig.6 Average rectified current vs. Ambient temperature

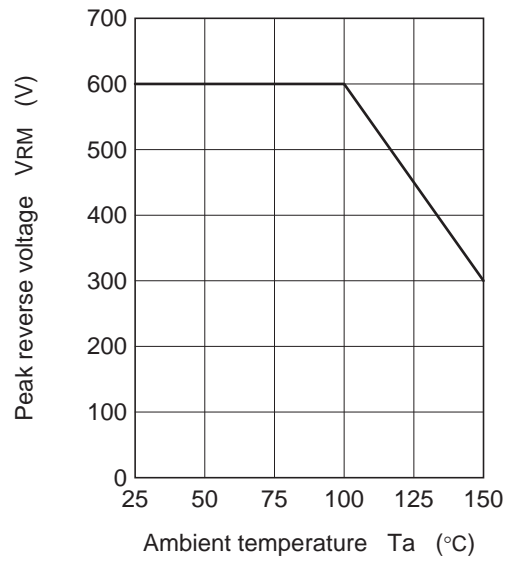
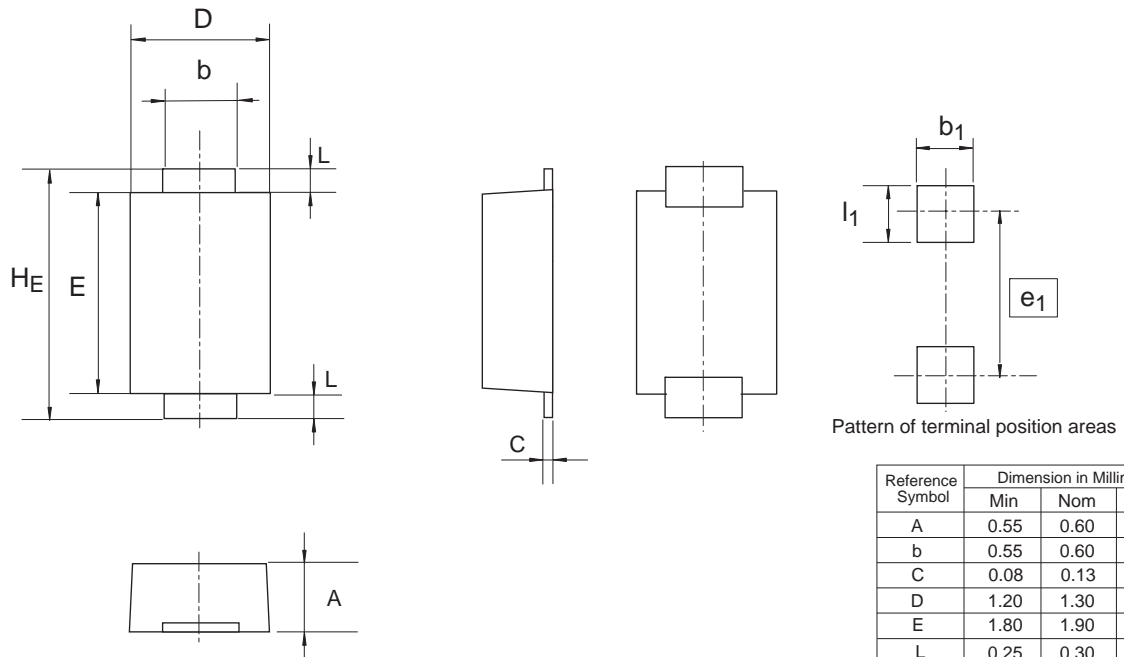


Fig.7 Peak reverse voltage vs. Ambient temperature

### Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
TURP-FM	—	PUSF0002ZD-A	TURP-FM	0.004g



Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A	0.55	0.60	0.65
b	0.55	0.60	0.65
C	0.08	0.13	0.18
D	1.20	1.30	1.40
E	1.80	1.90	2.00
L	0.25	0.30	0.35
HE	2.40	2.50	2.60
b <sub>1</sub>	-	0.90	-
[e <sub>1</sub> ]	-	2.30	-
l <sub>1</sub>	-	0.80	-

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