

To all our customers

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Renesas Technology Corp.  
Customer Support Dept.  
April 1, 2003

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Keep safety first in your circuit designs!

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# HRC0201A

Silicon Schottky Barrier Diode for Rectifying



ADE-208-1559 (Z)

Rev.0  
Dec. 2002

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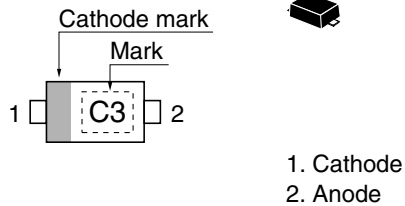
## Features

- Low forward voltage drop and suitable for high efficiency rectifying.
- Ultra small Flat Package (UFP) is suitable for surface mount design.

## Ordering Information

Type No.	Laser Mark	Package Code
HRC0201A	C3	UFP

## Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Repetitive peak reverse voltage	$V_{RRM}^{*1}$	15	V
Reverse voltage	$V_R$	15	V
Average rectified current	$I_O^{*1}$	200	mA
Peak forward current	$I_{FM}$	300	mA
Non-Repetitive peak forward surge current	$I_{FSM}^{*2}$	1	A
Junction temperature	Tj	125	°C
Storage temperature	Tstg	-55 to +125	°C

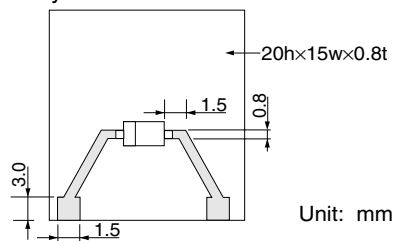
Notes: 1. See from Fig.4 to Fig.6, with polyimide board.  
2. 10 ms sine wave 1 pulse.

## Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_F$	—	—	0.39	V	$I_F = 200$ mA
Reverse current	$I_R$	—	—	50	μA	$V_R = 6$ V
Capacitance	C	—	18	—	pF	$V_R = 1$ V, $f = 1$ MHz
Thermal resistance	$R_{th(j-a)}$	—	600	—	°C/W	Polyimide board <sup>*1</sup>

Note: 1. Polyimide board



Main Characteristic

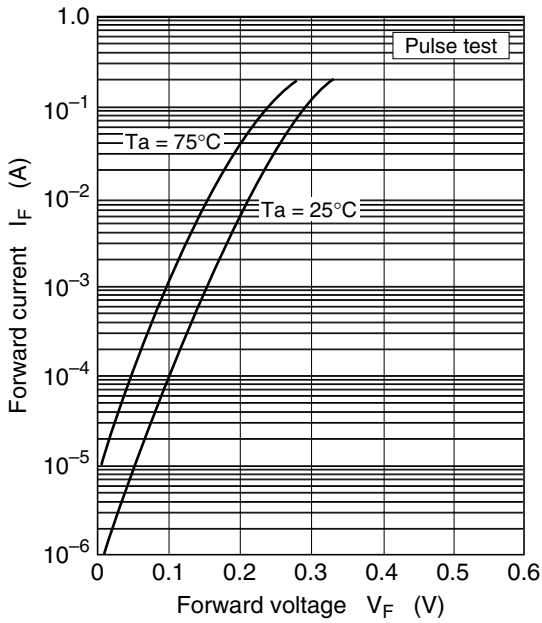


Fig.1 Forward current vs. Forward voltage

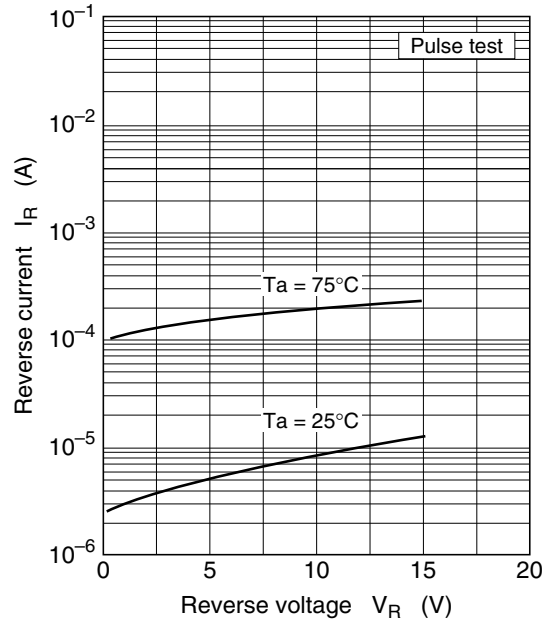


Fig.2 Reverse current vs. Reverse voltage

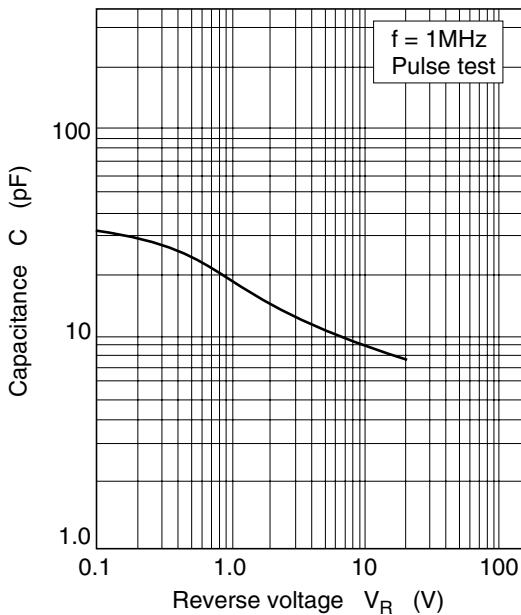


Fig.3 Capacitance vs. Reverse voltage

Main Characteristic (cont)

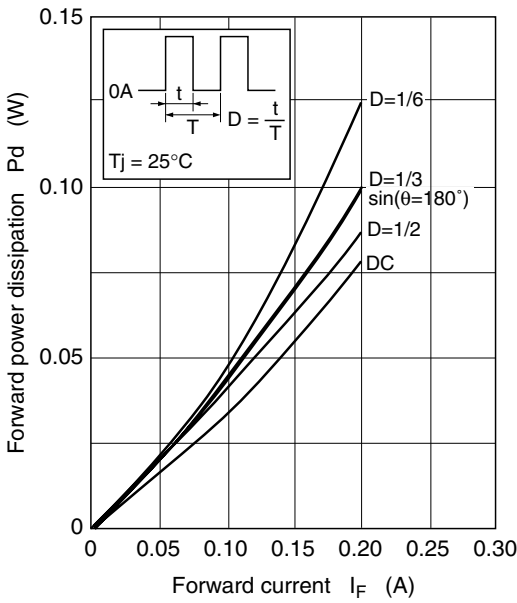


Fig.4 Forward power dissipation vs. Forward current

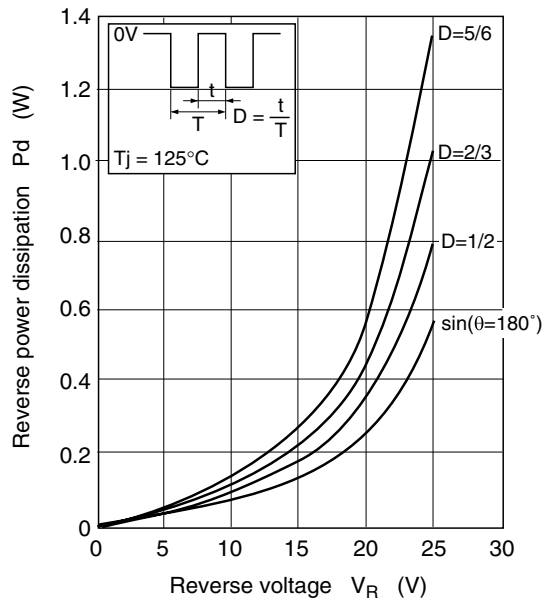


Fig.5 Reverse power dissipation vs. Reverse voltage

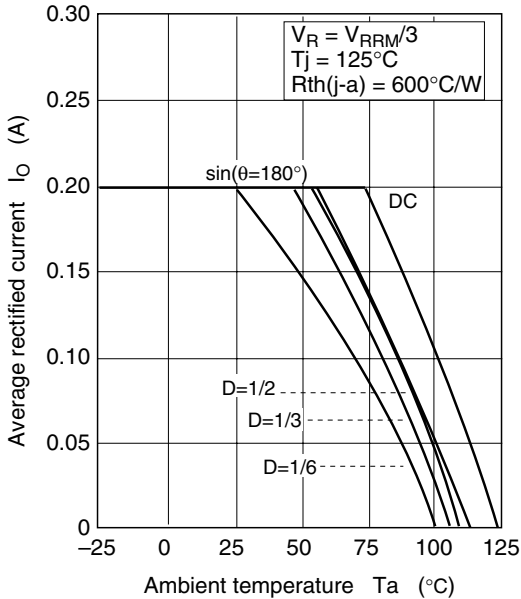
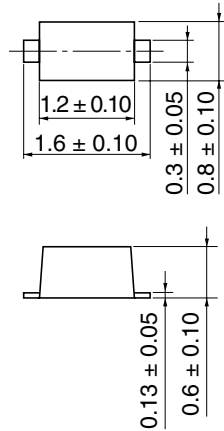


Fig.6 Average rectified current vs. Ambient temperature

## Package Dimensions

As of July, 2002

Unit: mm



Hitachi Code	UFP
JEDEC	—
JEITA	Conforms
Mass (reference value)	0.0016 g

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