

**RENESAS**

# HRD0103C

## Silicon Schottky Barrier Diode for Rectifying

REJ03G0070-0100Z  
(Previous: ADE-208-1614)  
Rev.1.00  
Aug.29.2003

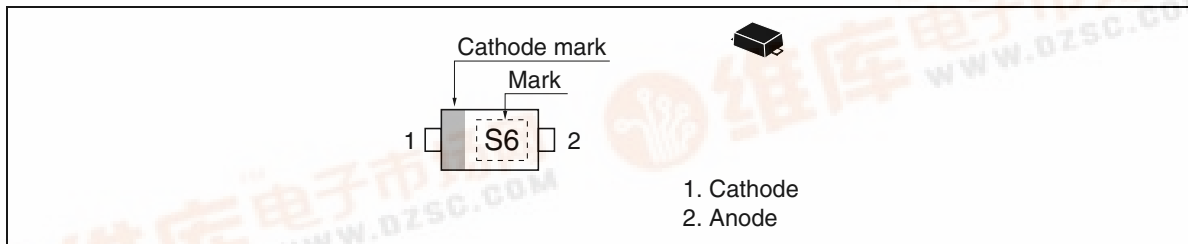
### Features

- Low reverse voltage drop and suitable for high efficiency reverse current.
- Super small Flat Package (SFP) is suitable for surface mount design.

### Ordering Information

Type No.	Laser Mark	Package Code
HRD0103C	S6	SFP

### Pin Arrangement



### Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	$V_{RM}^{*1}$	30	V
Reverse voltage	$V_R$	30	V
Average rectified current	$I_O^{*1}$	100	mA
Peak forward surge 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

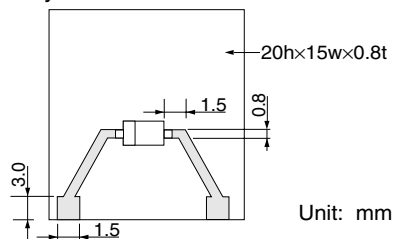
Notes: 1. See from Fig.3 to Fig.5.  
 2. 10 ms sine wave 1 pulse.

### Electrical Characteristics

(Ta = 25°C)

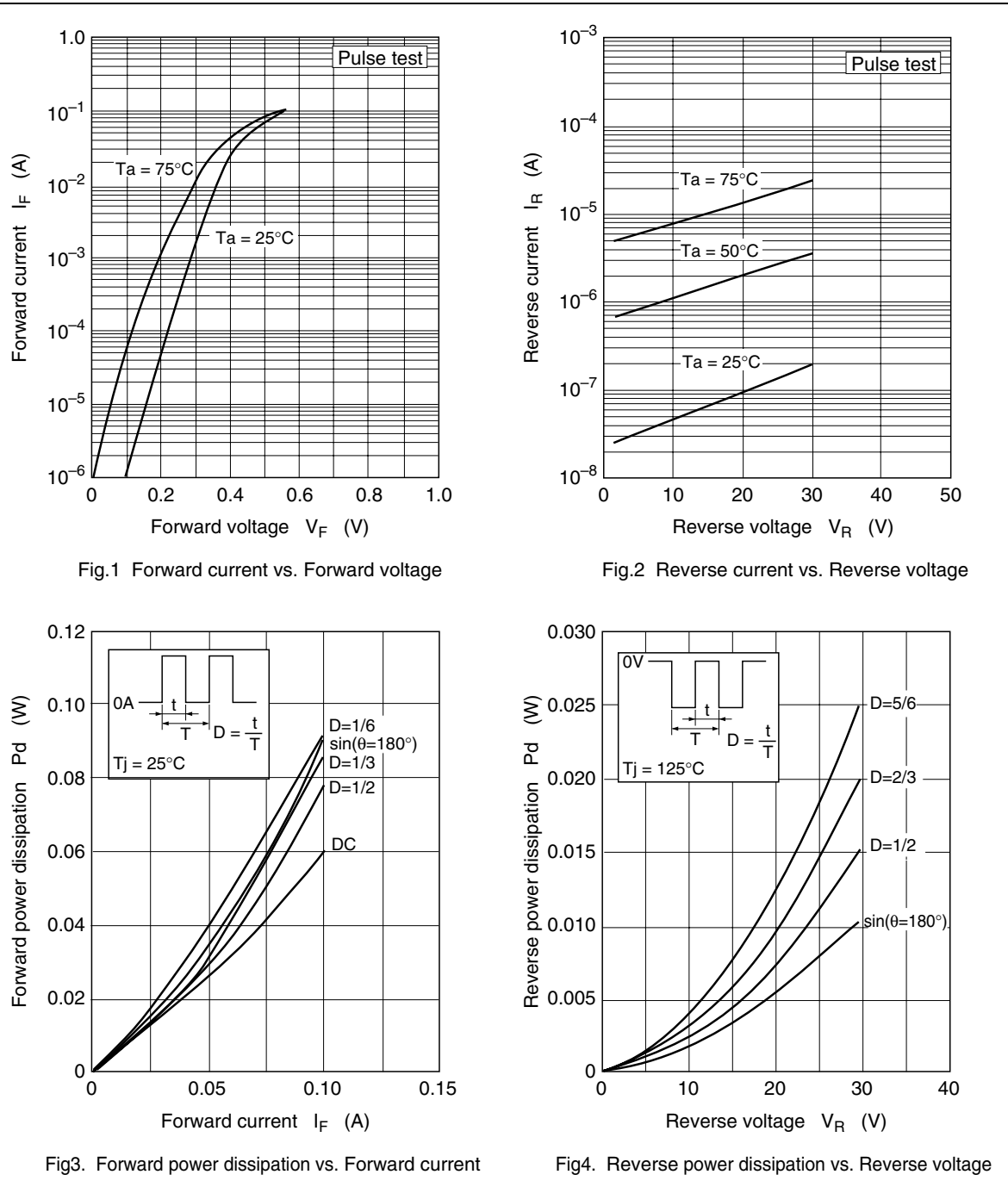
Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_{F1}$	—	—	0.4	V	$I_F = 10 \text{ mA}$
	$V_{F2}$	—	—	0.6		$I_F = 100 \text{ mA}$
Reverse current	$I_{R1}$	—	—	0.1	μA	$V_R = 5 \text{ V}$
	$I_{R2}$	—	—	0.2		$V_R = 10 \text{ V}$
Capacitance	C	—	—	8.0	pF	$V_R = 0.5 \text{ V}, f = 1 \text{ MHz}$
Thermal resistance	Rth(j-a)	—	600	—	°C/W	Polyimide board <sup>*1</sup>

Note: 1. Polyimide board



2. Please do not use the soldering iron due to avoid high stress to the SFP package.

Main Characteristics



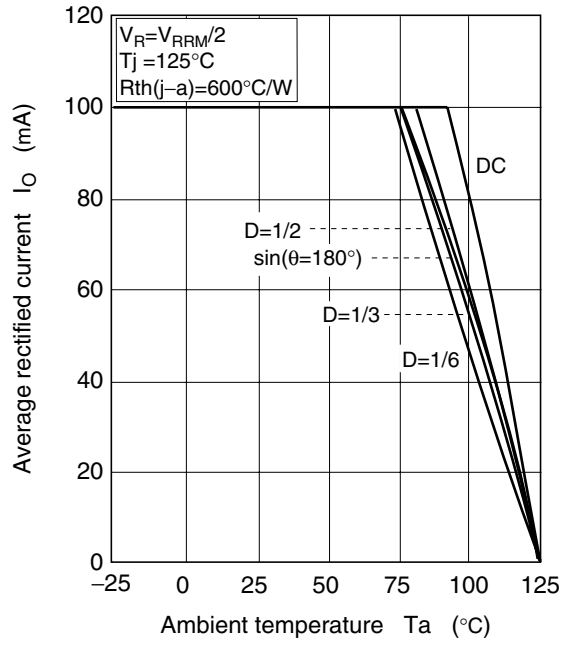
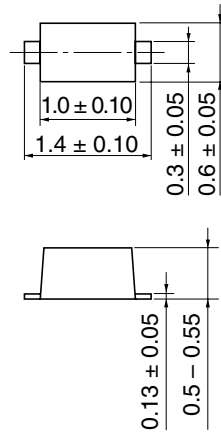


Fig.5 Average rectified current vs. Ambient temperature

Package Dimensions

As of January, 2003  
Unit: mm



Package Code	SFP
JEDEC	—
JEITA	—
Mass (reference value)	0.0010 g

## Renasantech Technology Corp. Sales Strategic Planning Div. Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan

---

### Keep safety first in your circuit designs!

1. Renasantech Technology Corporation puts the maximum effort into making semiconductor products better and more reliable, but there is always the possibility that trouble may occur with them. Trouble with semiconductors may lead to personal injury, fire or property damage.  
Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (i) placement of substitutive, auxiliary circuits, (ii) use of nonflammable material or (iii) prevention against any malfunction or mishap.

### Notes regarding these materials

1. These materials are intended as a reference to assist our customers in the selection of the Renasantech Technology Corporation product best suited to the customer's application; they do not convey any license under any intellectual property rights, or any other rights, belonging to Renasantech Technology Corporation or a third party.
  2. Renasantech Technology Corporation assumes no responsibility for any damage, or infringement of any third-party's rights, originating in the use of any product data, diagrams, charts, programs, algorithms, or circuit application examples contained in these materials.
  3. All information contained in these materials, including product data, diagrams, charts, programs and algorithms represents information on products at the time of publication of these materials, and are subject to change by Renasantech Technology Corporation without notice due to product improvements or other reasons. It is therefore recommended that customers contact Renasantech Technology Corporation or an authorized Renasantech Technology Corporation product distributor for the latest product information before purchasing a product listed herein.  
The information described here may contain technical inaccuracies or typographical errors.  
Renasantech Technology Corporation assumes no responsibility for any damage, liability, or other loss rising from these inaccuracies or errors.  
Please also pay attention to information published by Renasantech Technology Corporation by various means, including the Renasantech Technology Corporation Semiconductor home page (<http://www.renesas.com>).
  4. When using any or all of the information contained in these materials, including product data, diagrams, charts, programs, and algorithms, please be sure to evaluate all information as a total system before making a final decision on the applicability of the information and products. Renasantech Technology Corporation assumes no responsibility for any damage, liability or other loss resulting from the information contained herein.
  5. Renasantech Technology Corporation semiconductors are not designed or manufactured for use in a device or system that is used under circumstances in which human life is potentially at stake. Please contact Renasantech Technology Corporation or an authorized Renasantech Technology Corporation product distributor when considering the use of a product contained herein for any specific purposes, such as apparatus or systems for transportation, vehicular, medical, aerospace, nuclear, or undersea repeater use.
  6. The prior written approval of Renasantech Technology Corporation is necessary to reprint or reproduce in whole or in part these materials.
  7. If these products or technologies are subject to the Japanese export control restrictions, they must be exported under a license from the Japanese government and cannot be imported into a country other than the approved destination.  
Any diversion or reexport contrary to the export control laws and regulations of Japan and/or the country of destination is prohibited.
  8. Please contact Renasantech Technology Corporation for further details on these materials or the products contained therein.
- 



<http://www.renesas.com>