

HRB0502A

Silicon Schottky Barrier Diode for Rectifying

HITACHI

ADE-208-609(Z)

Rev 0

Mar. 1998

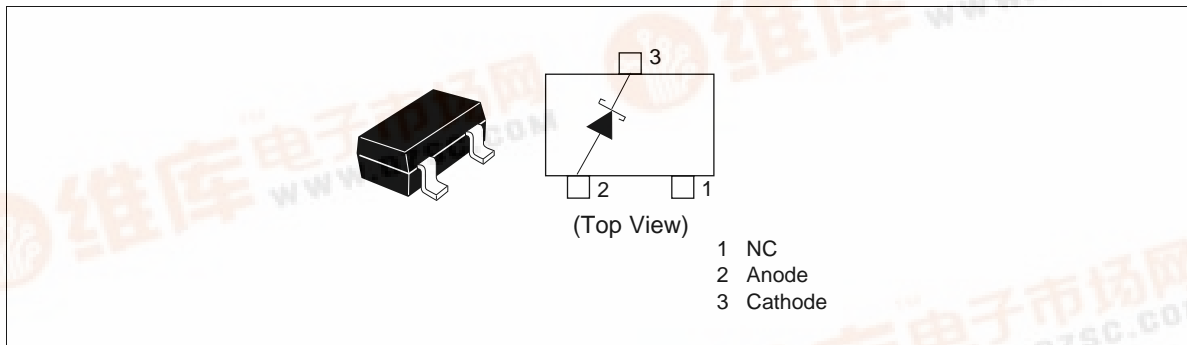
Features

- Low forward voltage drop and suitable for high efficiency rectifying.
- CMPAK Package is suitable for high density surface mounting and high speed assembly.

Ordering Information

Type No.	Laser Mark	Package Code
HRB0502A	E3	CMPAK

Outline



HRB0502A

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Value	Unit
Repetitive peak reverse voltage	V_{RRM}	20	V
Average rectified current	I_O^{*1}	500	mA
Non-Repetitive peak forward surge current	I_{FSM}^{*2}	5	A
Junction temperature	Tj	125	°C
Storage temperature	Tstg	-55 to +125	°C

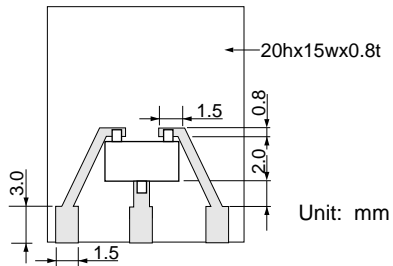
Notes 1. See from Fig.4 to Fig.6

Notes 2. 10msec sine wave 1 pulse

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_F	—	—	0.4	V	$I_F = 500 \text{ mA}$
Reverse current	I_R	—	—	200	μA	$V_R = 20\text{V}$
Capacitance	C	—	120	—	pF	$V_R = 0\text{V}, f = 1 \text{ MHz}$
Thermal resistance	$R_{th(j-a)}$	—	450	—	°C/W	Polyimide board ^{*1}

Notes 1. Polyimide board



Main Characteristic

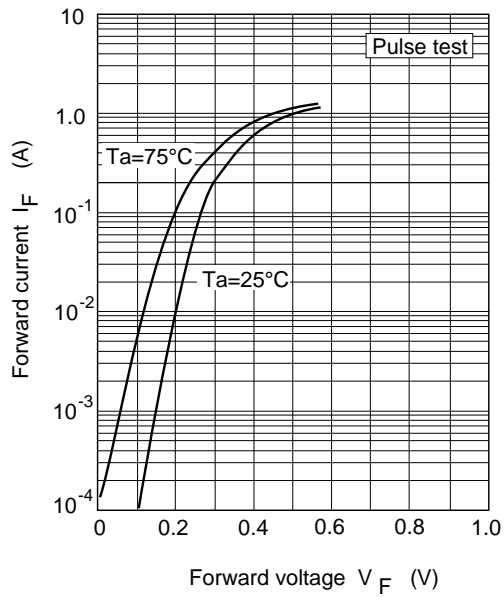


Fig.1 Forward current Vs. Forward voltage

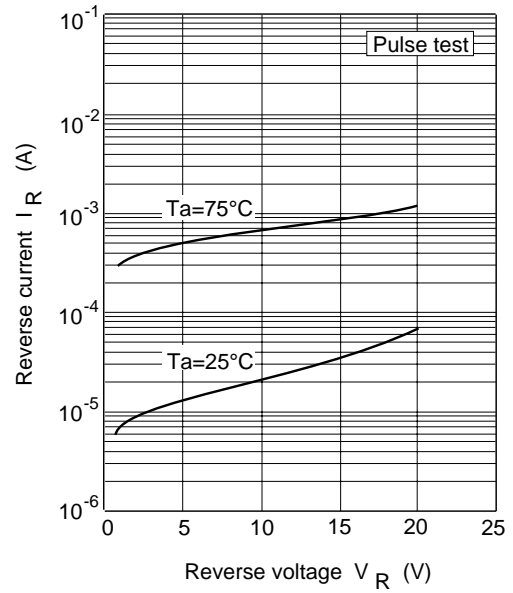


Fig.2 Reverse current Vs. Reverse voltage

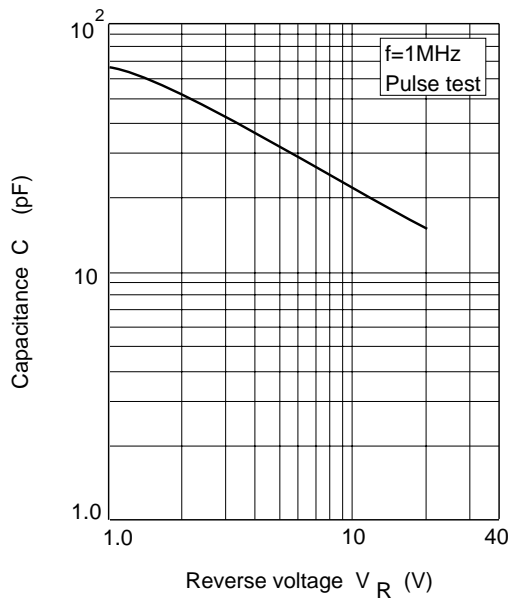


Fig.3 Capacitance Vs. Reverse voltage

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Main Characteristic

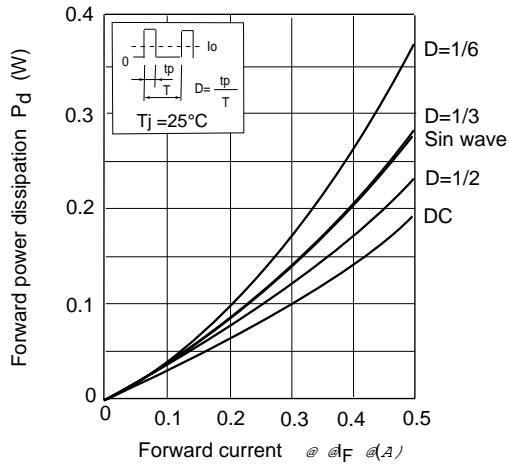


Fig4. Forward power dissipation Vs. Forward current

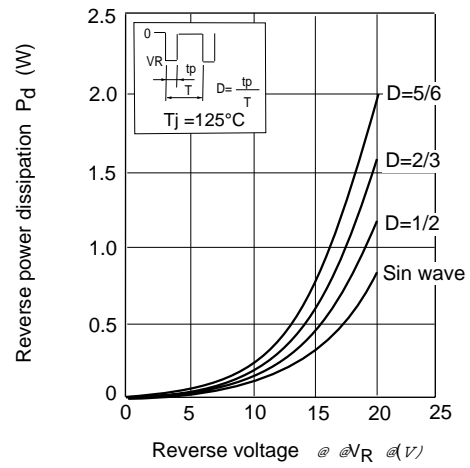


Fig5. Reverse power dissipation Vs. Reverse voltage

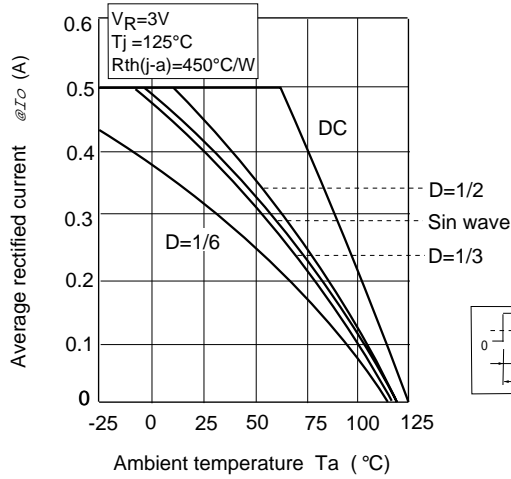
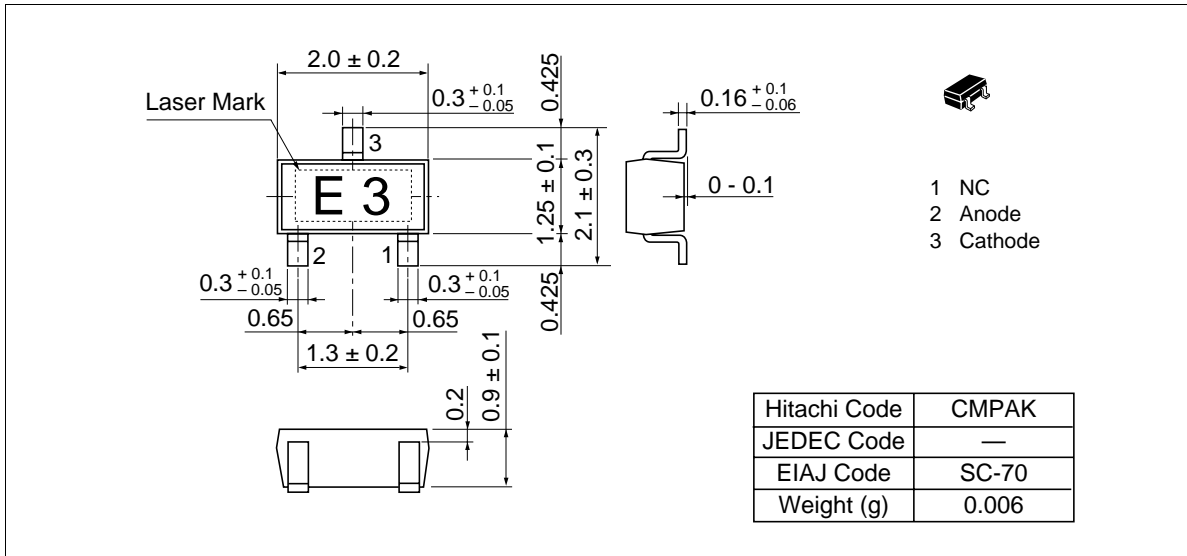


Fig.6 Average rectified current Vs. Ambient temperature

Package Dimensions

Unit : mm



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HITACHI

Hitachi, Ltd.

Semiconductor & Integrated Circuits.
Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan
Tel: Tokyo (03) 3270-2111 Fax: (03) 3270-5109

URL NorthAmerica : <http://semiconductor.hitachi.com/>
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For further information write to:

Hitachi Semiconductor
(America) Inc.
179 East Tasman Drive,
San Jose, CA 95134
Tel: <1> (408) 433-1990
Fax: <1> (408) 433-0223

Hitachi Europe GmbH
Electronic components Group
Dornacher StraÙe 3
D-85622 Feldkirchen, Munich
Germany
Tel: <49> (89) 9 9180-0
Fax: <49> (89) 9 29 30 00

Hitachi Europe Ltd.
Electronic Components Group.
Whitebrook Park
Lower Cookham Road
Maidenhead
Berkshire SL6 8YA, United Kingdom
Tel: <44> (1628) 585000
Fax: <44> (1628) 778322

Hitachi Asia Pte. Ltd.
16 Collyer Quay #20-00
Hitachi Tower
Singapore 049318
Tel: 535-2100
Fax: 535-1533

Hitachi Asia Ltd.
Taipei Branch Office
3F, Hung Kuo Building, No.167,
Tun-Hwa North Road, Taipei (105)
Tel: <886> (2) 2718-3666
Fax: <886> (2) 2718-8180

Hitachi Asia (Hong Kong) Ltd.
Group III (Electronic Components)
7/F., North Tower, World Finance Centre,
Harbour City, Canton Road, Tsim Sha Tsui,
Kowloon, Hong Kong
Tel: <852> (2) 735 9218
Fax: <852> (2) 730 0281
Telex: 40815 HITEC HX