

## HRB0502A

### Silicon Schottky Barrier Diode for Rectifying

REJ03G0047-0200Z

Rev.2.00

Sep.01.2003

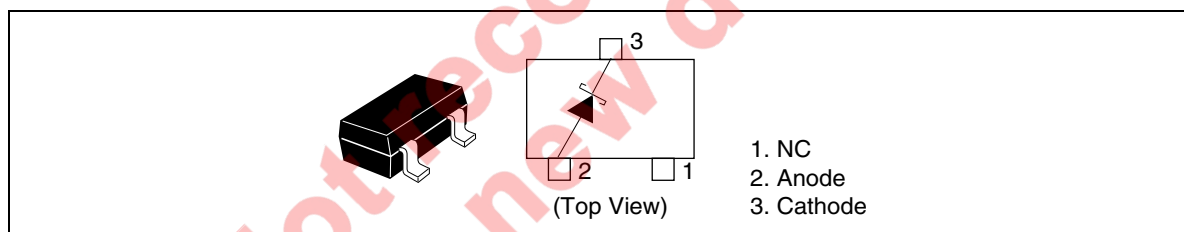
#### Features

- 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

#### Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Repetitive peak reverse voltage	$V_{RRM}$	20	V
Forward current	$I_F^{*1}$	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

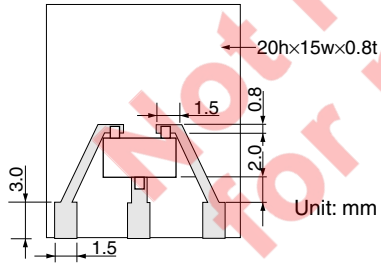
Notes: 1. See from Fig.4 to Fig.6  
2. 10 ms sine wave 1 pulse

## Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_F$	—	—	0.4	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	Rth(j-a)	—	450	—	°C/W	Polyimide board <sup>*1</sup>

Note: Polyimide board



## Main Characteristic

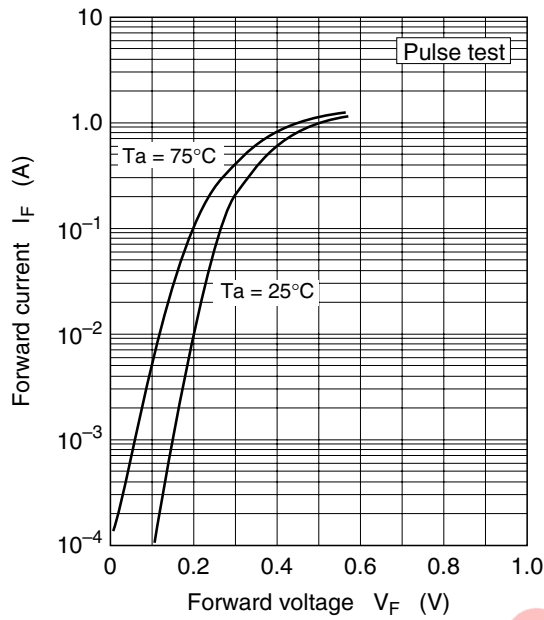


Fig.1 Forward current vs. Forward voltage

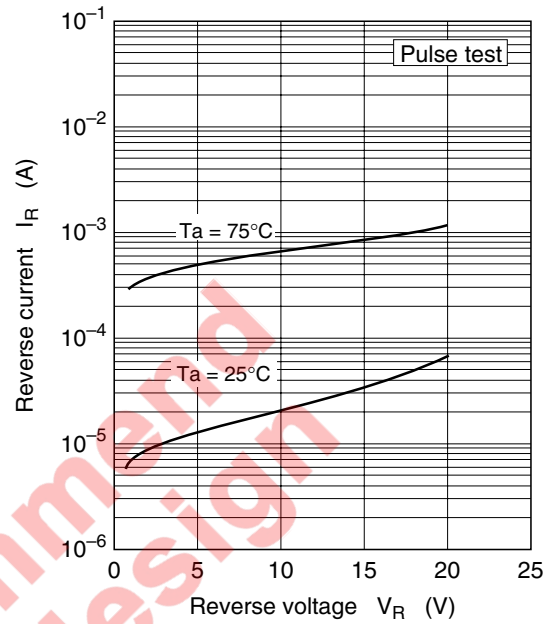


Fig.2 Reverse current vs. Reverse voltage

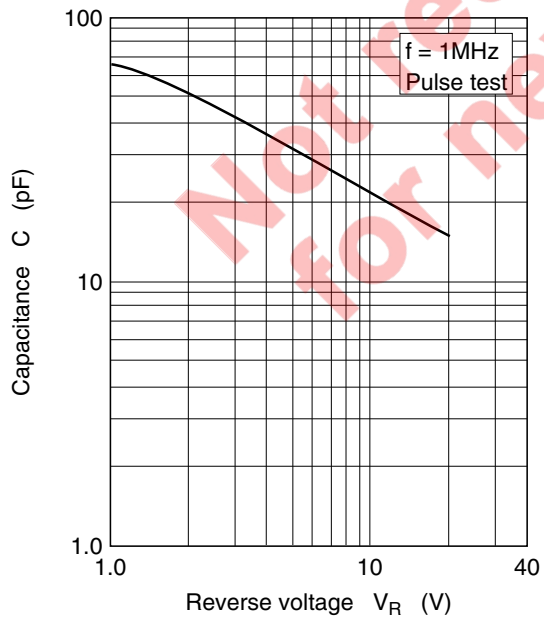


Fig.3 Capacitance vs. Reverse voltage

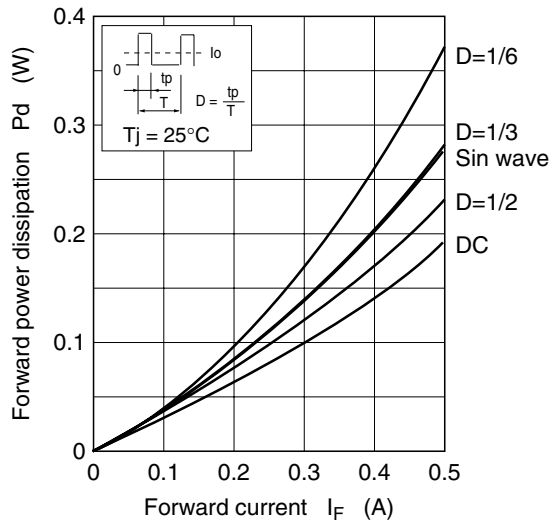


Fig.4 Forward power dissipation vs. Forward current

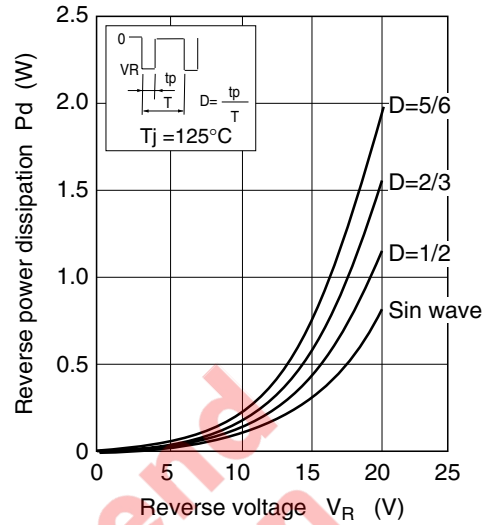


Fig.5 Reverse power dissipation vs. Reverse voltage

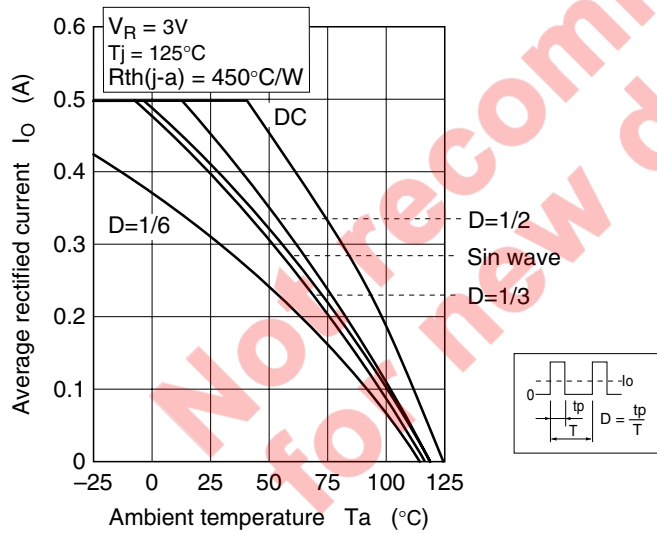
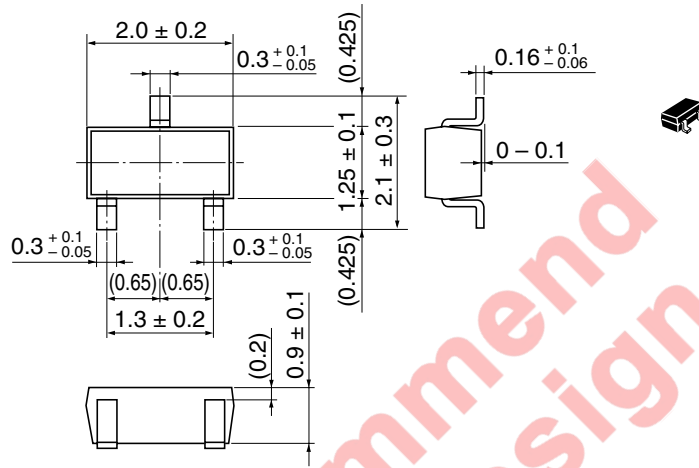


Fig.6 Average rectified current vs. Ambient temperature

Package Dimensions

As of January, 2003

Unit: mm



Package Code	CMPAK
JEDEC	—
JEITA	Conforms
Mass (reference value)	0.006 g

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