

HRB0502A

Silicon Schottky Barrier Diode for Rectifying

REJ03G0047-0200Z

Rev.2.00

Sep.01.2003

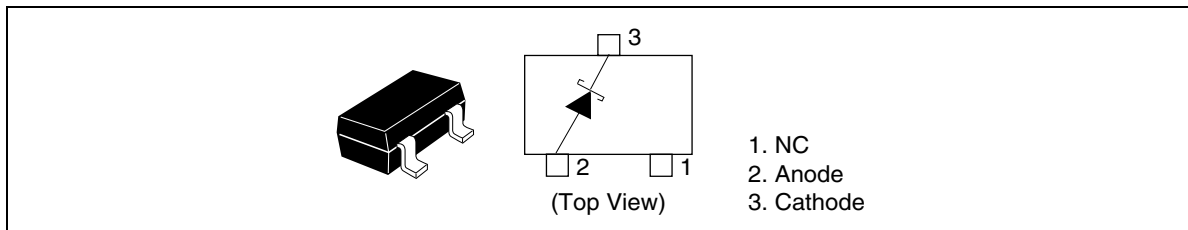
Features

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

Ordering Information

Type No.	Laser Mark	Package Code
HRB0502A	E3	CMLPAK

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

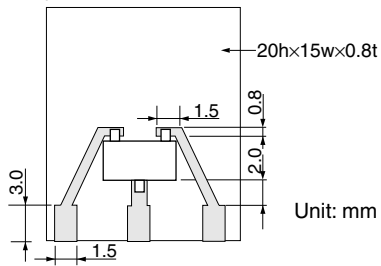
Notes: 1. See from Fig.4 to Fig.6
 2. 10 ms sine wave 1 pulse

Electrical Characteristics

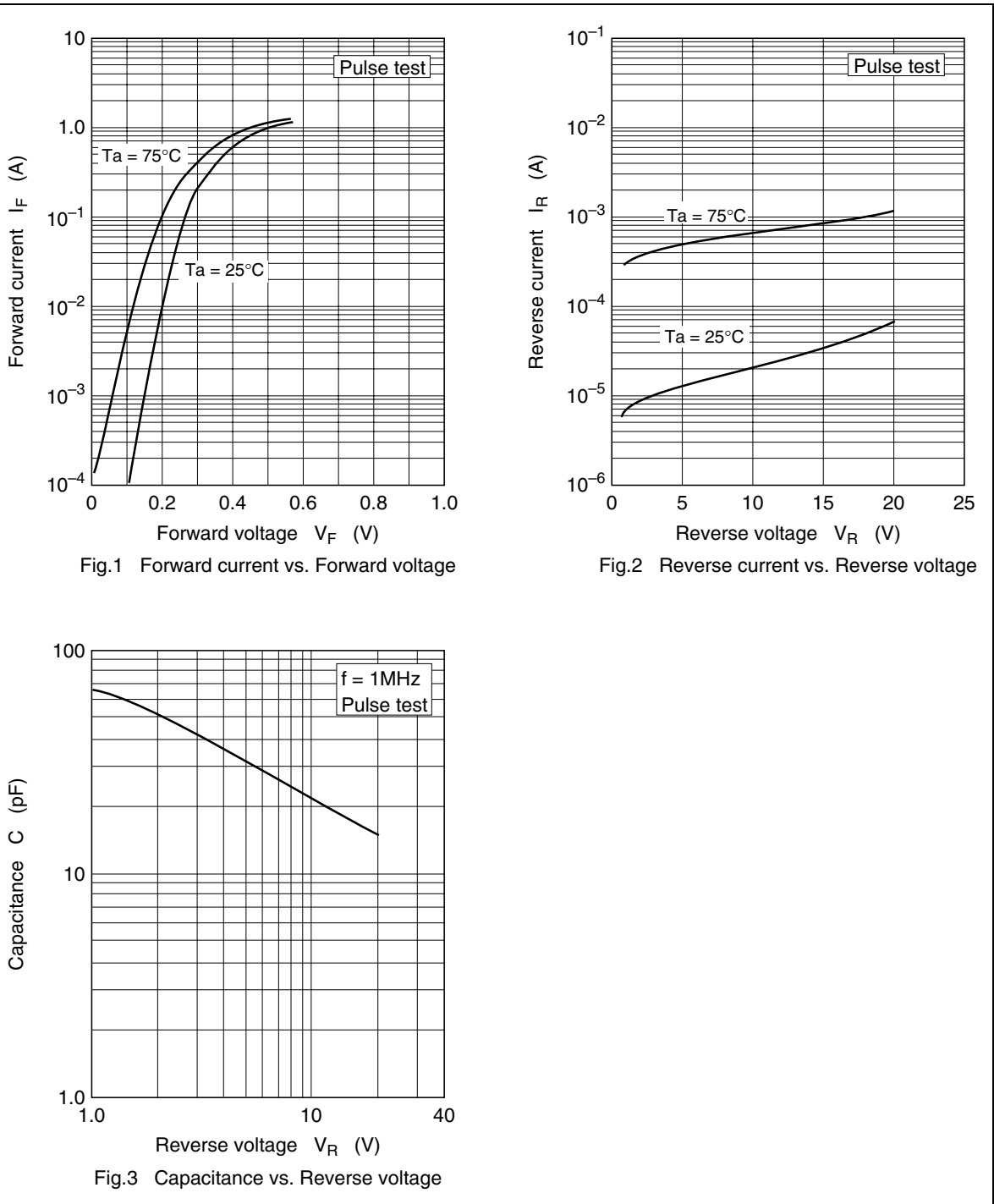
(Ta = 25°C)

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 ^{*1}

Note: Polyimide board



Main Characteristic



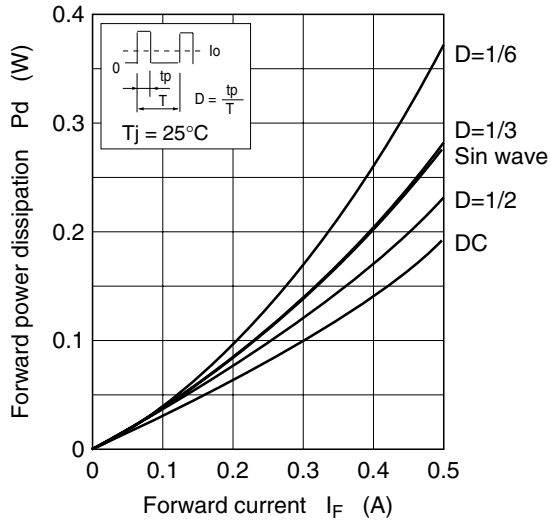


Fig.4 Forward power dissipation vs. Forward current

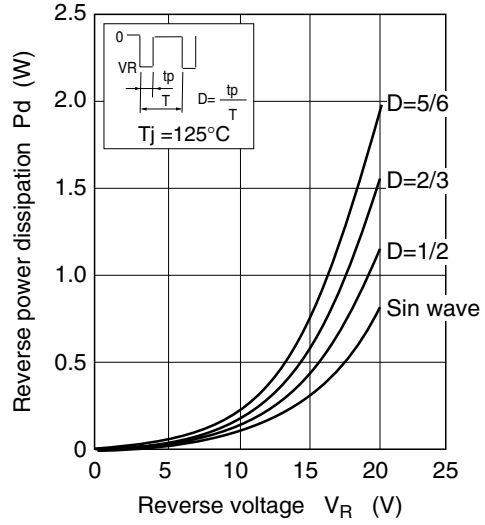


Fig.5 Reverse power dissipation vs. Reverse voltage

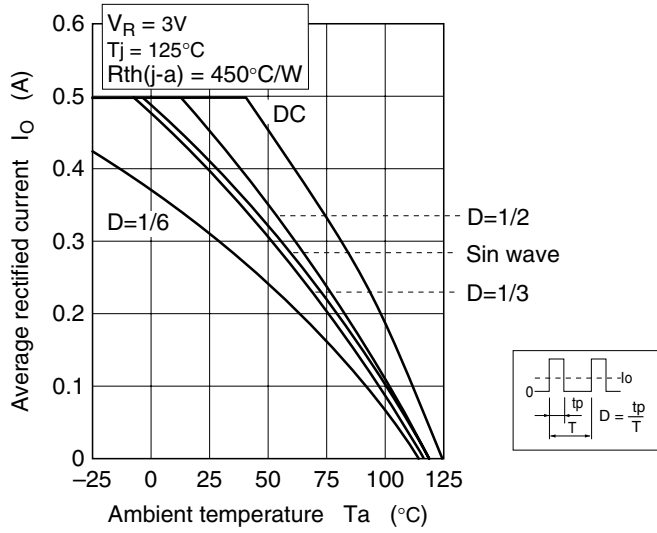
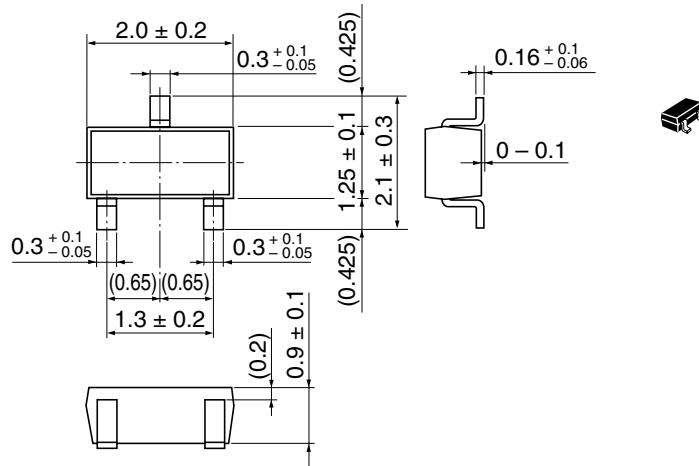


Fig.6 Average rectified current vs. Ambient temperature

Package Dimensions

As of January, 2003
Unit: mm



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

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