

## HSB123

### Silicon Epitaxial Planar Diode for High Speed Switching

REJ03G0546-0200  
(Previous: ADE-208-487A)  
Rev.2.00  
Mar 04, 2005

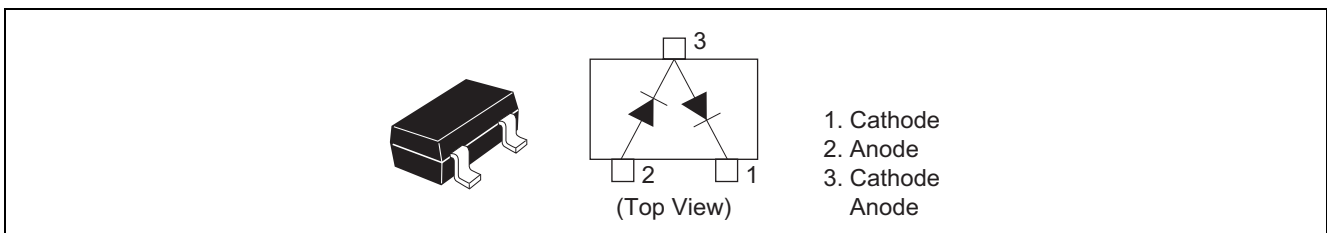
#### Features

- Low capacitance, proof against high voltage.
- Fast recovery time.
- CMPAK package is suitable for high density surface mounting and high speed assembly.

#### Ordering Information

Type No.	Laser Mark	Package Name	Package Code (Previous Code)
HSB123	A9	CMPAK	PTSP0003ZB-A (CMPAK)

#### Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	$V_{RM}$	85	V
Reverse voltage	$V_R$	80	V
Peak forward current	$I_{FM}^{*1}$	300	mA
Non-Repetitive peak forward surge current	$I_{FSM}^{*2}$	4	A
Average rectified current	$I_O^{*1}$	100	mA
Junction temperature	$T_j$	125	°C
Storage temperature	$T_{stg}$	-55 to +125	°C

Notes: 1. Two device total.

2. Value at duration of 1  $\mu$ s, two device total.

## Electrical Characteristics \*

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_{F1}$	—	—	1.0	V	$I_F = 10$ mA
	$V_{F2}$	—	—	1.0		$I_F = 50$ mA
	$V_{F3}$	—	—	1.2		$I_F = 100$ mA
Reverse current	$I_R$	—	—	0.1	$\mu$ A	$V_R = 80$ V
Capacitance	C	—	—	2.0	pF	$V_R = 0$ V, $f = 1$ MHz
Reverse recovery time	$t_{rr}$	—	—	3.0	ns	$I_F = 10$ mA, $V_R = 6$ V, $R_L = 50$ $\Omega$

Note: Per one device.

Main Characteristic

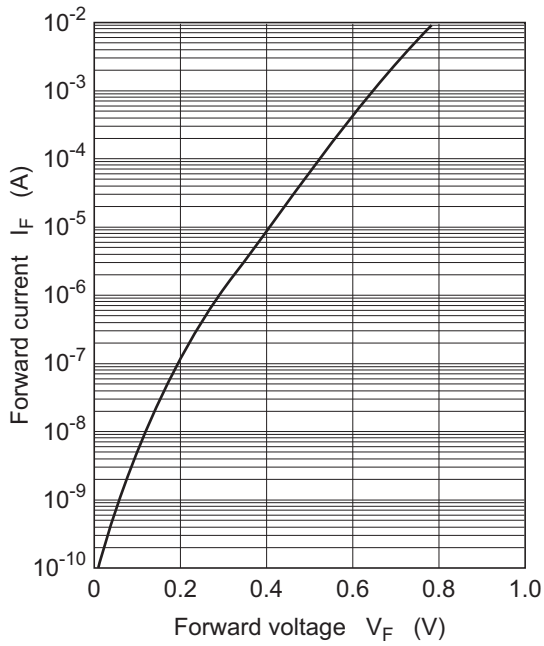


Fig.1 Forward current vs. Forward voltage

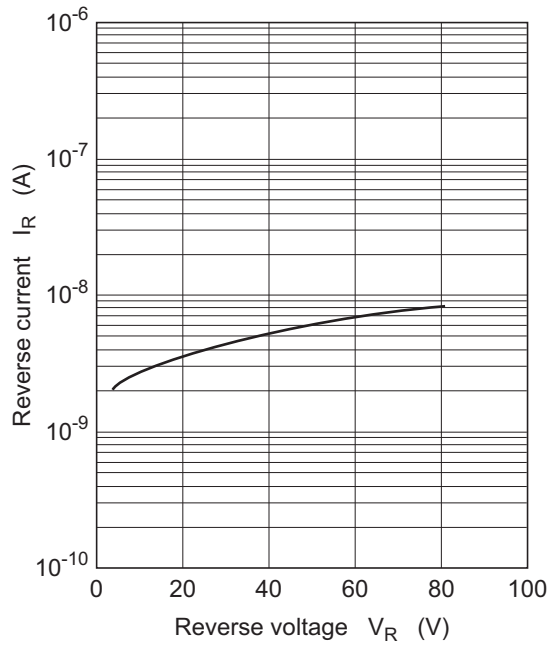


Fig.2 Reverse current vs. Reverse voltage

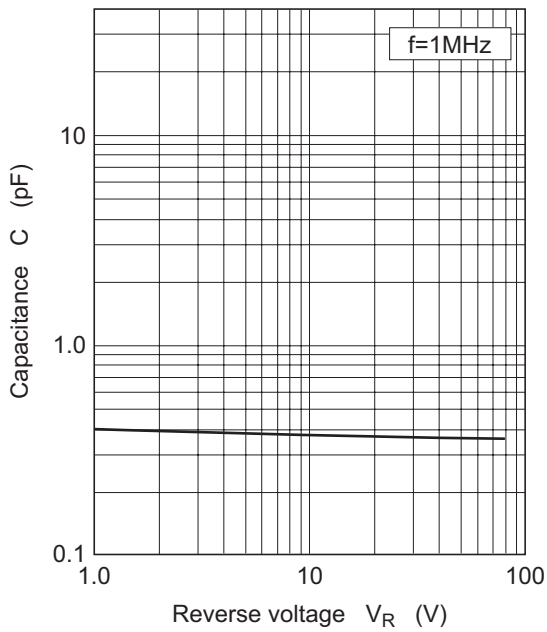
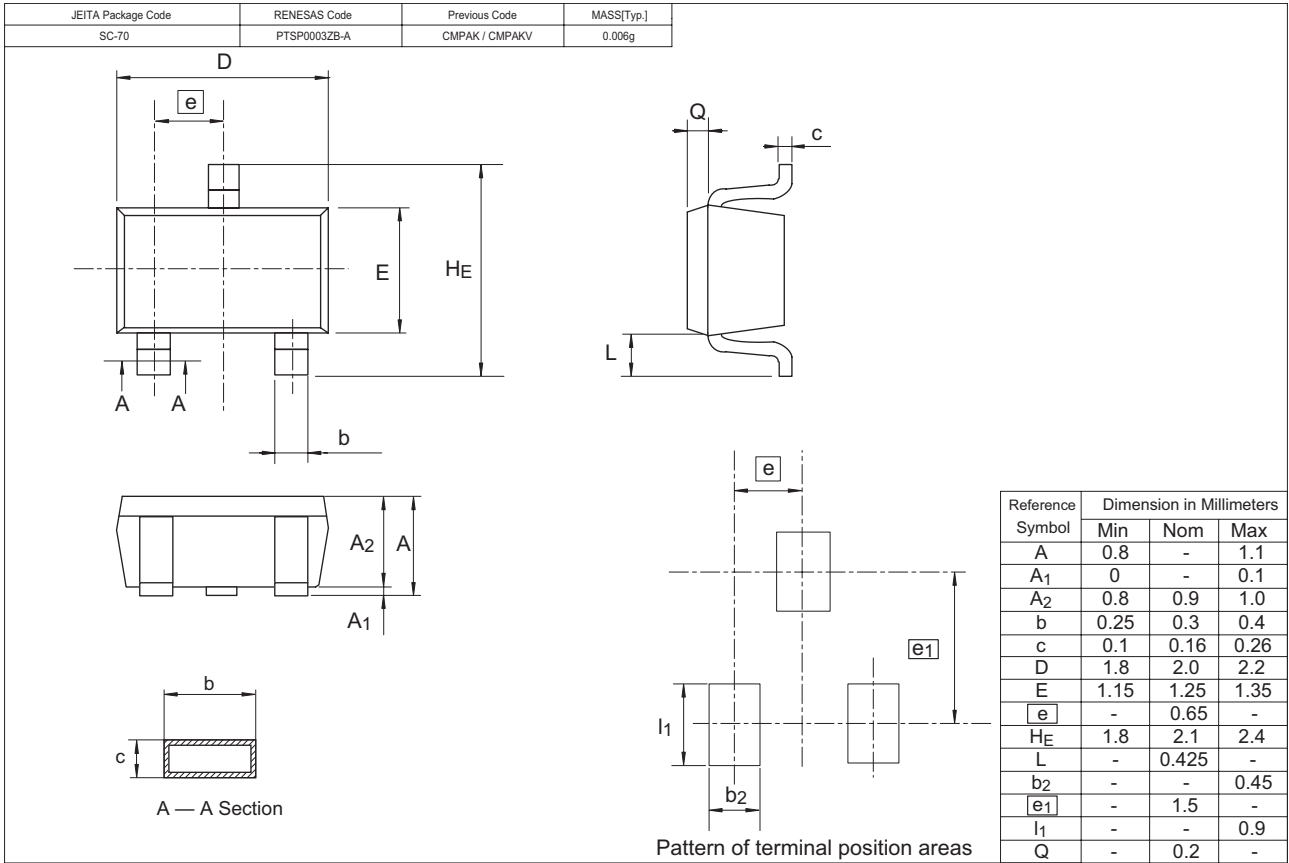


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions



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