

HSB123

Silicon Epitaxial Planar Diode for High Speed Switching

REJ03G0546-0300
 Rev.3.00
 Jan 07, 2009

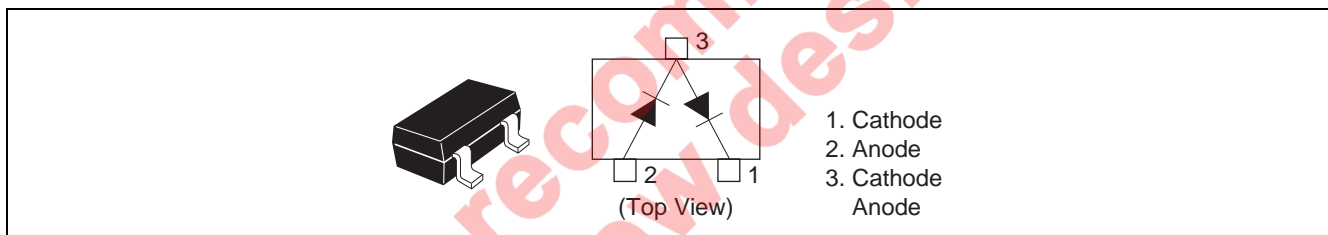
Features

- Low capacitance, proof against high voltage.
- Fast recovery time. (trr = 3.0ns max)
- CMPAK package is suitable for high density surface mounting and high speed assembly.

Ordering Information

Part No	Laser Mark	Package Name	Package Code	Taping Abbreviation (Quantity)
HSB123TL	A9	CMPAK	PTSP0003ZB-A	TL (3,000 pcs / reel)
HSB123TR	A9	CMPAK	PTSP0003ZB-A	TR (3,000 pcs / reel)

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	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

- Notes: 1. Two device total.
2. Value at duration of 1 μ s, two device total.

Electrical Characteristics ^{*1}

(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	V	$I_F = 50$ mA
	V_{F3}	—	—	1.2	V	$I_F = 100$ mA
Reverse current	I_R	—	—	0.1	μ 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, $R_L = 50$ Ω

- Note: 1. Per one device.

Not recommended
for new designs

Main Characteristics

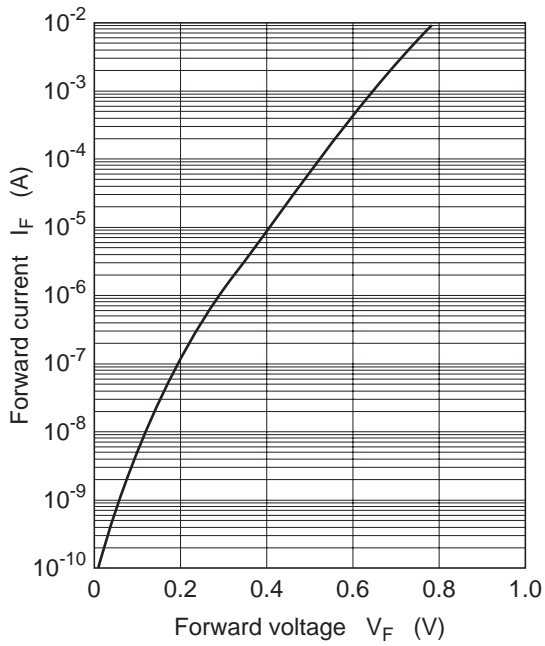


Fig.1 Forward current vs. Forward voltage

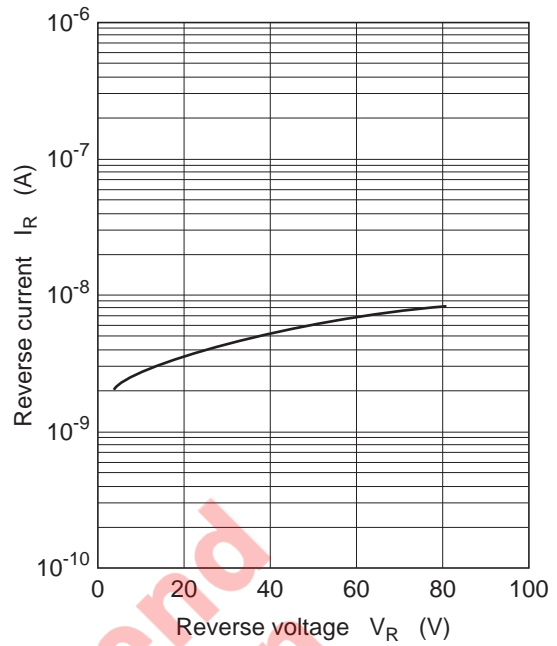


Fig.2 Reverse current vs. Reverse voltage

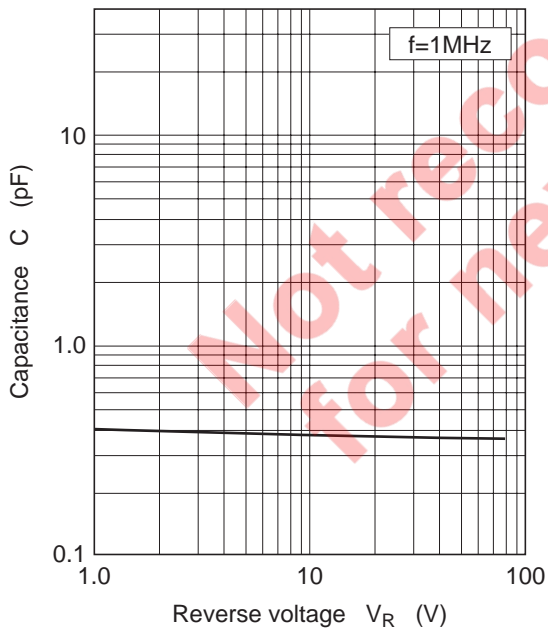
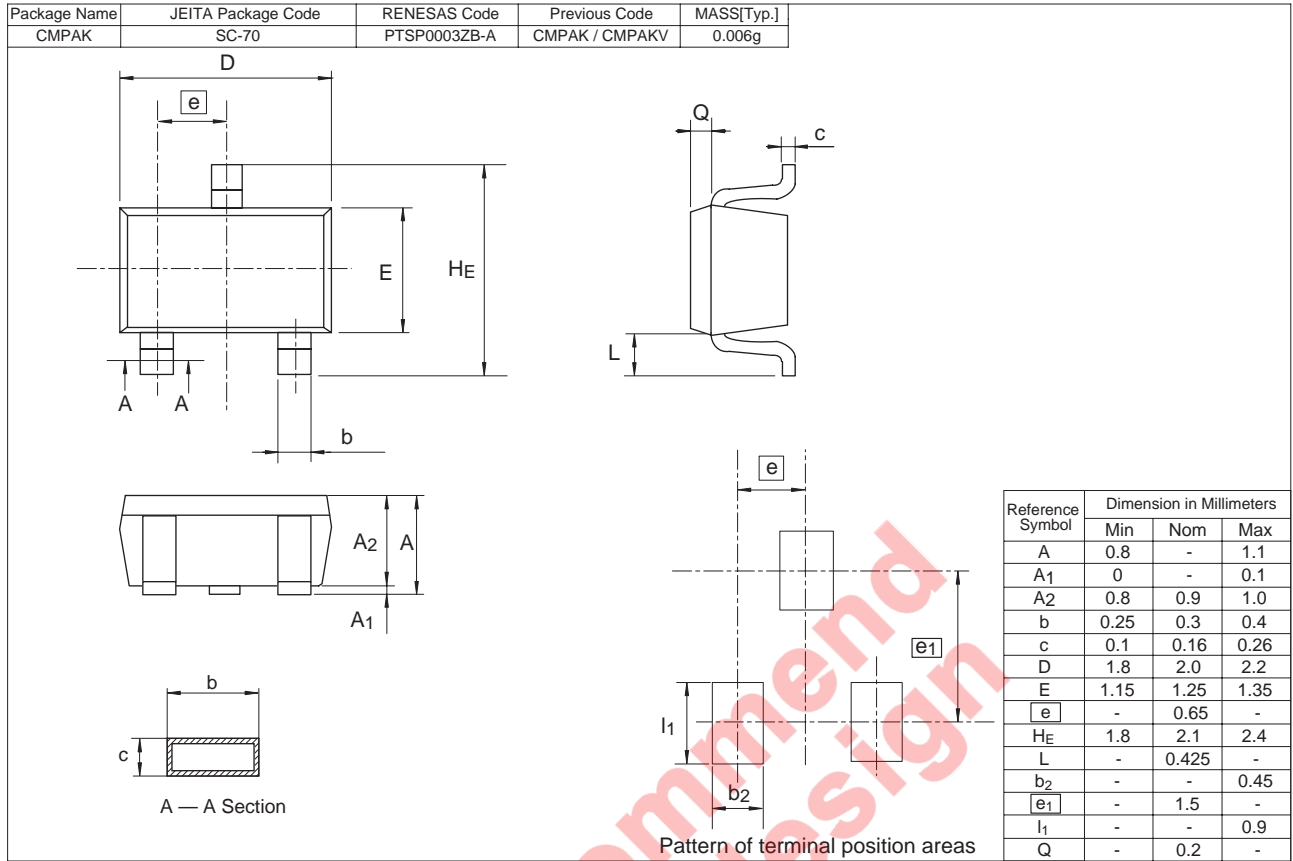


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions



Not recommended for new design

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April 1st, 2010
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