

HSB123

Silicon Epitaxial Planar Diode for High Speed Switching

REJ03G0546-0300

Rev.3.00

Jan 07, 2009

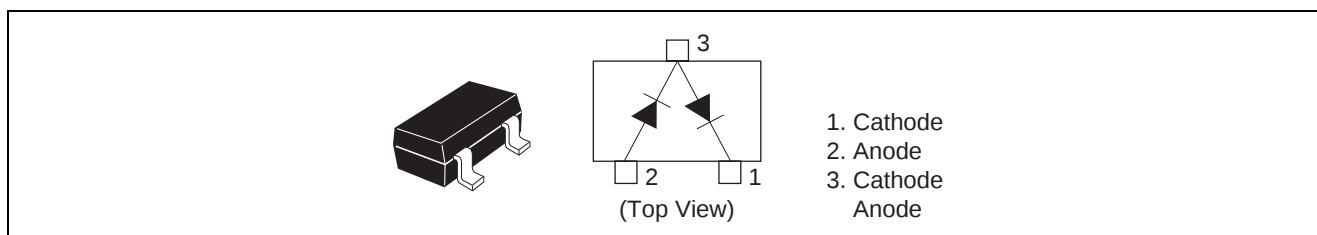
Features

- Low capacitance, proof against high voltage.
- Fast recovery time. ($t_{rr} = 3.0\text{ns max}$)
- CML 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	CML	PTSP0003ZB-A	TL (3,000 pcs / reel)
HSB123TR	A9	CML	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.

Main Characteristics

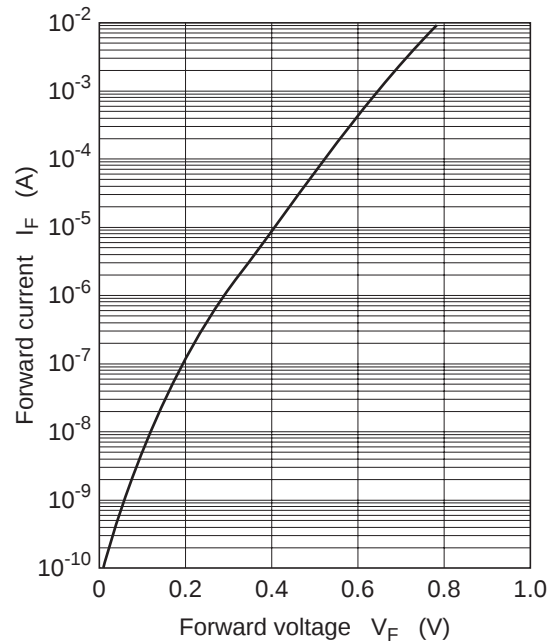


Fig.1 Forward current vs. Forward voltage

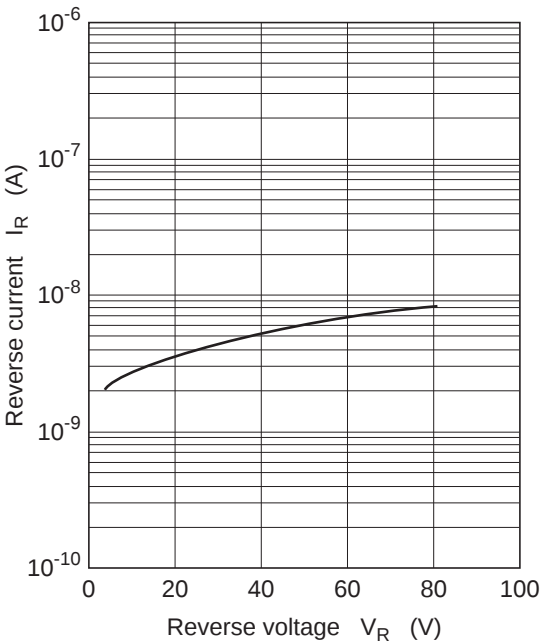


Fig.2 Reverse current vs. Reverse voltage

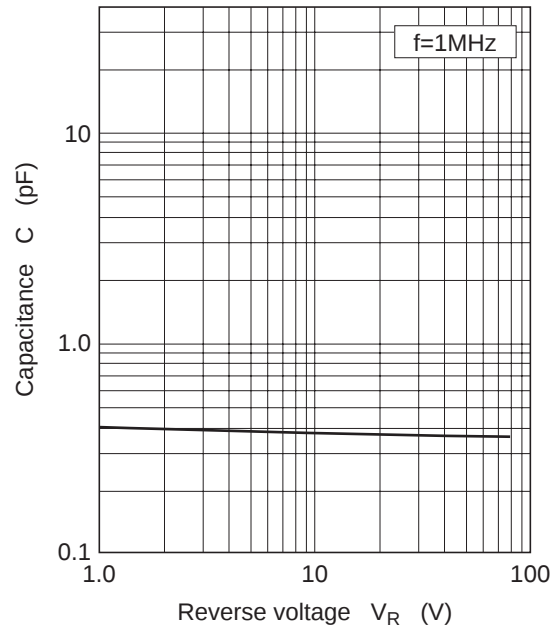
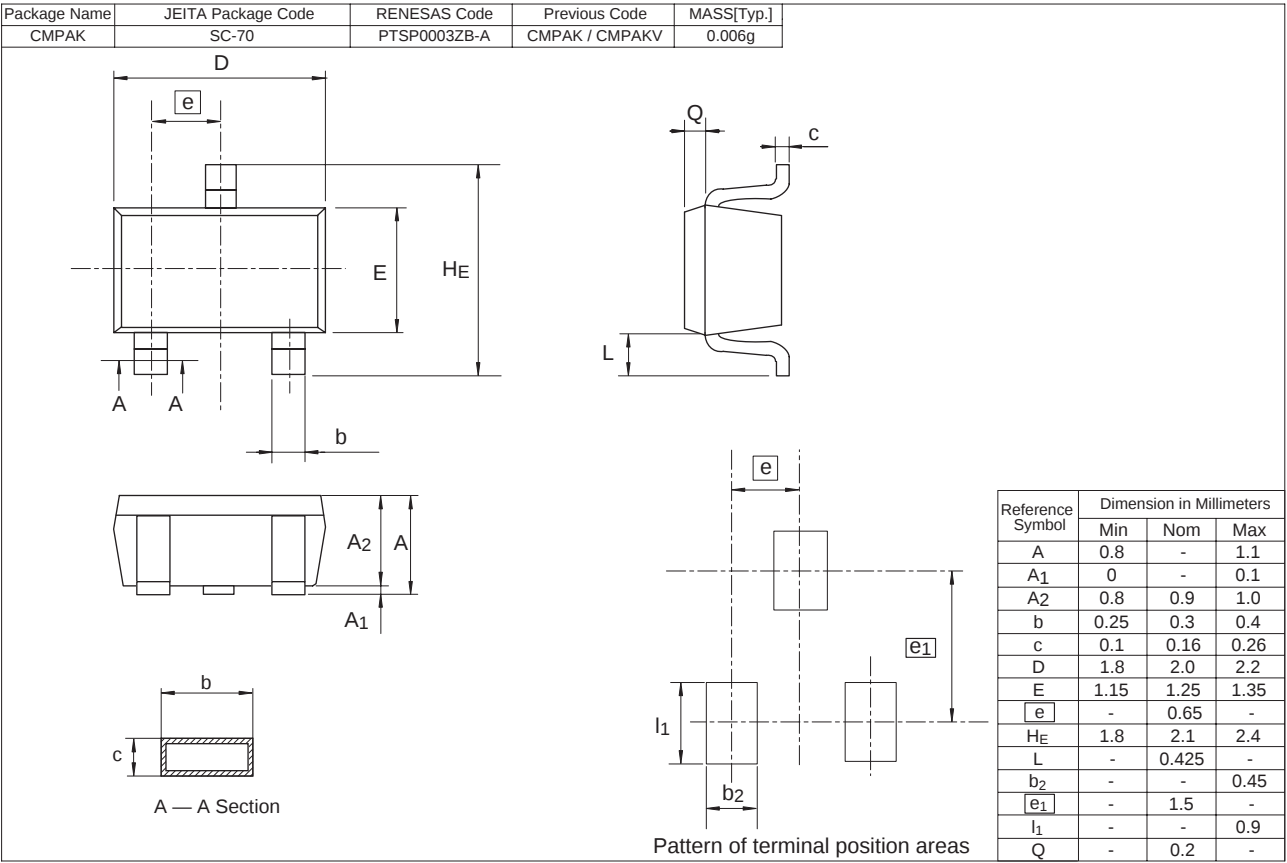


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions



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April 1st, 2010
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