
HSB123

Silicon Epitaxial Planar Diode for High Speed Switching

HITACHI

ADE-208-487(Z)
Rev 0

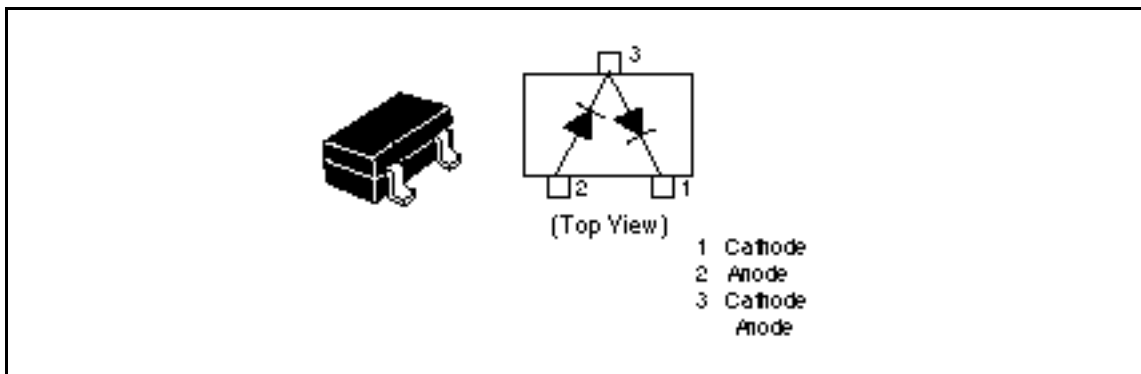
Features

- 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 Code
HSB123	A9	CMPAK

Outline



HSB123

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	Tj	125	°C
Storage temperature	Tstg	-55 to +125	°C

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

Electrical Characteristics (Ta = 25°C) *¹

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

- Note: 1. Per one device.

Main Characteristic

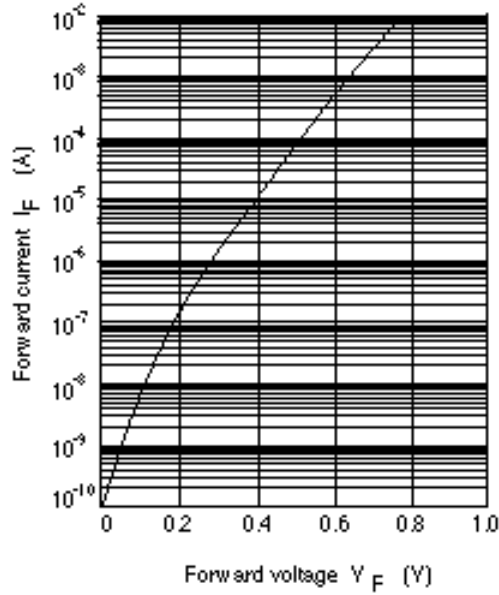


Fig.1 Forward current Vs. Forward voltage

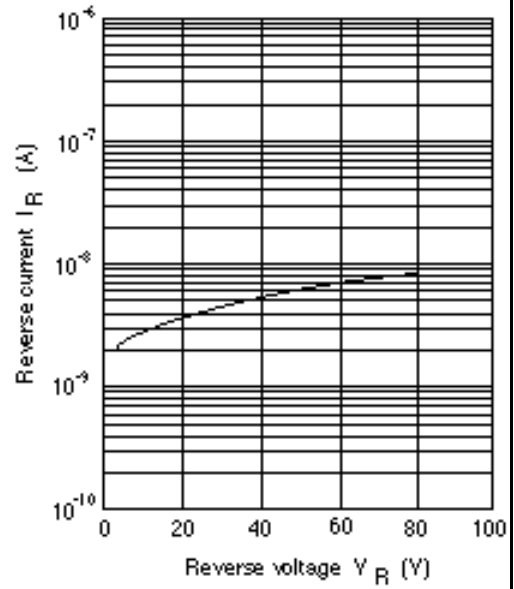


Fig.2 Reverse current Vs. Reverse voltage

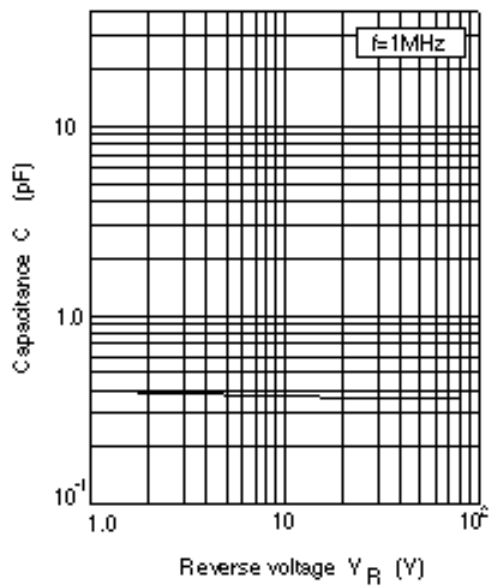


Fig.3 Capacitance Vs. Reverse voltage

