

# HSB276S

Silicon Schottky Barrier Diode for Balanced Mixer

# HITACHI

ADE-208-780 (Z)  
Rev 0  
Mar. 1999

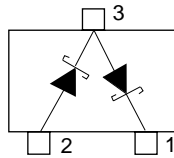
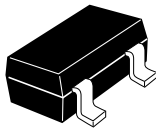
## Features

- High forward current, Low capacitance.
- HSB276S which is interconnected in series configuration is designed for balanced mixer use.
- CMPAK package is suitable for high density surface mounting and high speed assembly.

## Ordering Information

Type No.	Laser Mark	Package Code
HSB276S	C2	CMPAK

## Outline



(Top View)

- 1 Cathode 2
- 2 Anode 1
- 3 Cathode 1  
Anode 2

**Absolute Maximum Ratings (Ta = 25°C)**

Item	Symbol	Value	Unit
Reverse voltage	$V_R$	3	V
Average rectified current	$I_O^{*1}$	30	mA
Junction temperature	$T_j$	125	°C
Storage temperature	$T_{stg}$	-55 to +125	°C

Note 1. Per one device

**Electrical Characteristics (Ta = 25°C) \*2**

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse voltage	$V_R$	3	—	—	V	$I_R = 1 \text{ mA}$
Reverse current	$I_R$	—	—	50	$\mu\text{A}$	$V_R = 0.5\text{V}$
Forward current	$I_F$	35	—	—	mA	$V_F = 0.5\text{V}$
Capacitance	C	—	—	0.90	pF	$V_R = 0.5\text{V}, f = 1 \text{ MHz}$
Capacitance deviation	$\Delta C$	—	—	0.10	pF	$V_R = 0.5\text{V}, f = 1 \text{ MHz}$
ESD-Capability*1	—	30	—	—	V	C=200pF, Both forward and reverse direction 1 pulse.

Note 1. Failure criterion ;  $I_R \geq 100\mu\text{A}$  at  $V_R = 0.5 \text{ V}$

Note 2. Per one device

Main Characteristic

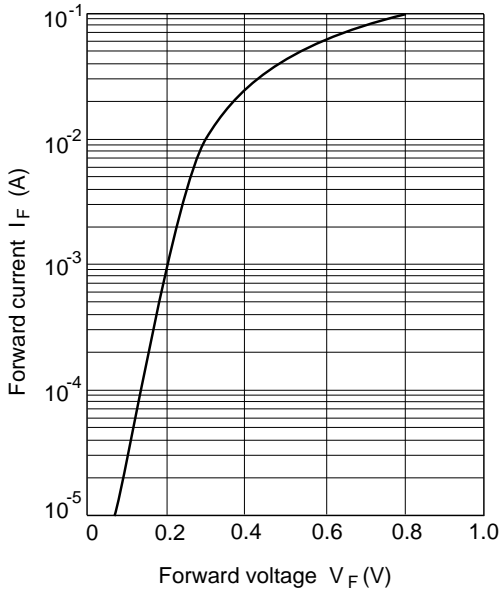


Fig.1 Forward current Vs. Forward voltage

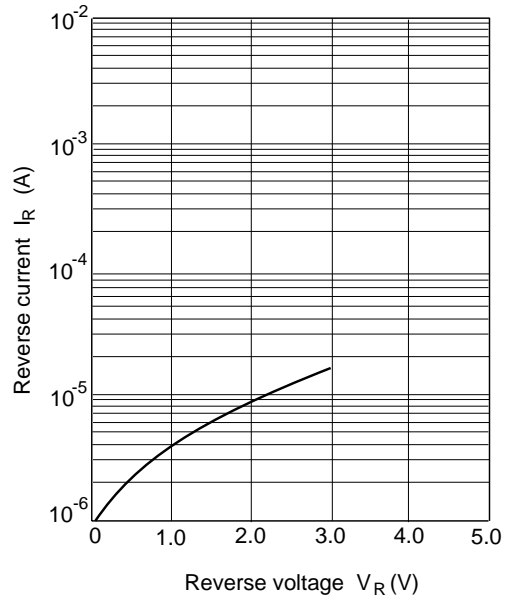


Fig.2 Reverse current Vs. Reverse voltage

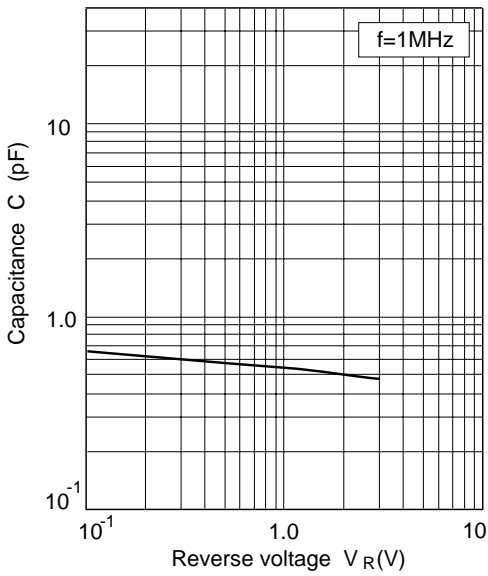


Fig.3 Capacitance Vs. Reverse voltage



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