

# HSB88WS

Silicon Schottky Barrier Diode for Double Balanced Mixer

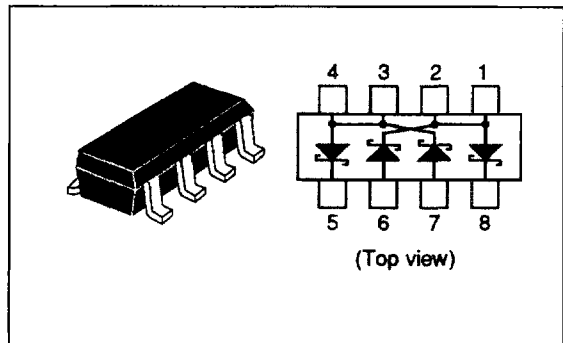
## Features

- Small  $\Delta V_F$  and  $\Delta C$ .
- Good for surface mounting on printed circuit board.
- Each diode can be biased.
- Wideband operation.

## Ordering Information

Type No.	Mark	Package Code
HSB88WS	Silver	MOP

## Pin Arrangement



## Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Item	Symbol	Value	Unit
Reverse voltage	$V_R$	10	V
Average forward current	$I_o^*$	15	mA
Power dissipation	$P_d^*$	150	mW
Junction temperature	$T_j$	125	$^\circ\text{C}$
Operation temperature	$T_{opr}$	-40 to + 85	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +125	$^\circ\text{C}$

\* 4 Devices total

## Electrical Characteristics ( $T_a = 25^\circ\text{C}$ )

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_{F1}$	365	—	435	mV	$I_F = 1 \text{ mA}$
	$V_{F2}$	520	—	600	mV	$I_F = 10 \text{ mA}$
Reverse current	$I_{R1}$	—	—	0.2	$\mu\text{A}$	$V_R = 2 \text{ V}$
	$I_{R2}$	—	—	10	$\mu\text{A}$	$V_R = 10 \text{ V}$
Capacitance	C	—	—	0.85	pF	$V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$
Capacitance deviation	$\Delta C$	—	—	0.2	pF	$V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$
Forward voltage deviation	$\Delta V_F$	—	—	15	mV	$I_F = 10 \text{ mA}$
ESD-Capability	—	30	—	—	V	* $C=200\text{pF}$ . Both forward and reverse direction 1 pulse.

\* Failure criterion ;  $I_R \geq 50\mu\text{A}$  at  $V_R = 10 \text{ V}$

\*\* Deviation between 4 devices in one package

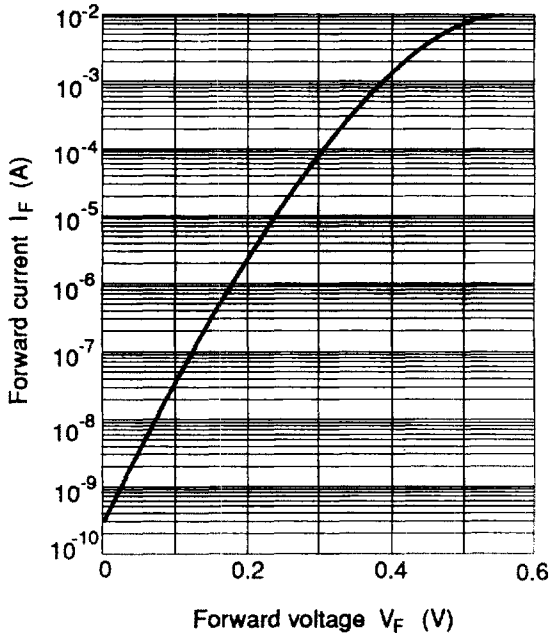


Fig.1 Forward current Vs. Forward voltage

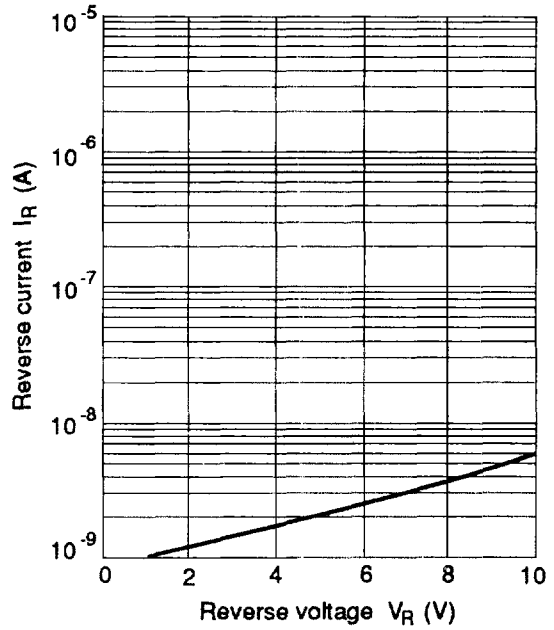


Fig.2 Reverse current Vs. Reverse voltage

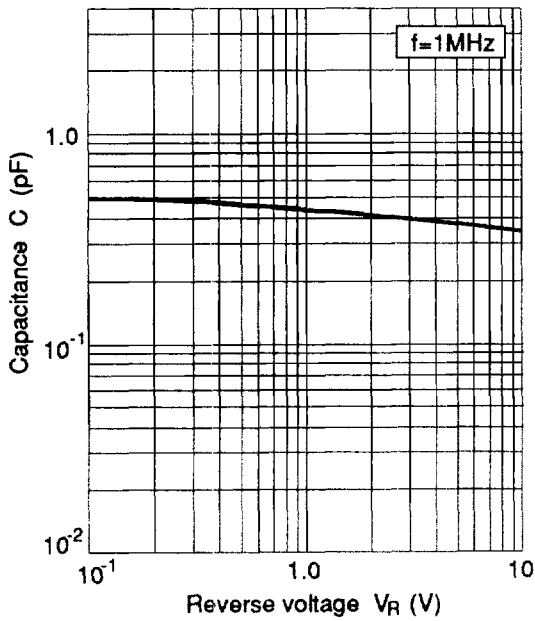


Fig.3 Capacitance Vs. Reverse voltage