

HSB88WS

Silicon Schottky Barrier Diode for Balanced Mixer

REJ03G0589-0400
(Previous: ADE-208-026C)
Rev.4.00
Apr 05, 2005

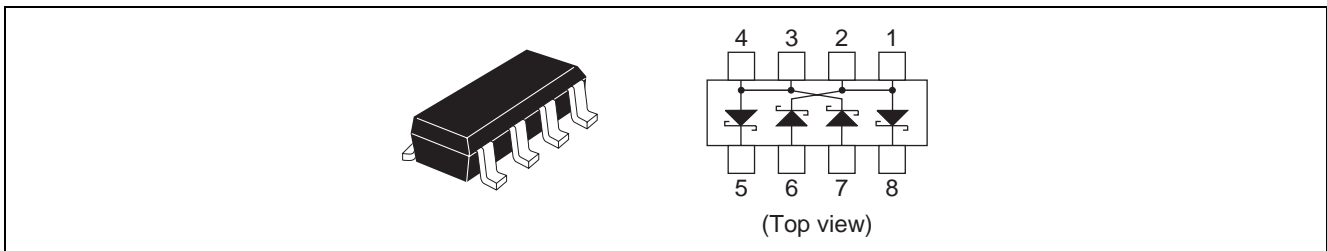
Features

- Small ΔV_F and ΔC .
- Good for surface mounting on printed circuit board.
- Each diode can be biased.
- Wideband operation.

Ordering Information

Type No.	Laser Mark	Package Name	Package Code (Previous Code)
HSB88WS	—	MOP	PTSP0008DB-A (MOP)

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	10	V
Average rectified current	I_O^{*1}	15	mA
Power dissipation	P_d^{*1}	150	mW
Junction temperature	T_j	125	°C
Operation temperature	T_{opr}	-40 to +85	°C
Storage temperature	T_{stg}	-55 to +125	°C

Note: 1. 4 devices total

Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_{F1}	0.365	—	0.435	V	$I_F = 1 \text{ mA}$
	V_{F2}	0.520	—	0.600		$I_F = 10 \text{ mA}$
Reverse current	I_{R1}	—	—	0.2	μA	$V_R = 2 \text{ V}$
	I_{R2}	—	—	10		$V_R = 10 \text{ V}$
Capacitance	C	—	—	0.85	pF	$V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$
Capacitance deviation	ΔC^{*1}	—	—	0.2	pF	$V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$
Forward voltage deviation	ΔV_F^{*1}	—	—	15	mV	$I_F = 10 \text{ mA}$
ESD-Capability ^{*2}	—	30	—	—	V	C = 200 pF, R = 0 Ω , Both forward and reverse direction 1 pulse.

Notes: 1. Deviation between 4 devices in one package.

2. Failure criterion ; $I_R > 0.4 \mu\text{A}$ at $V_R = 2 \text{ V}$

Main Characteristic

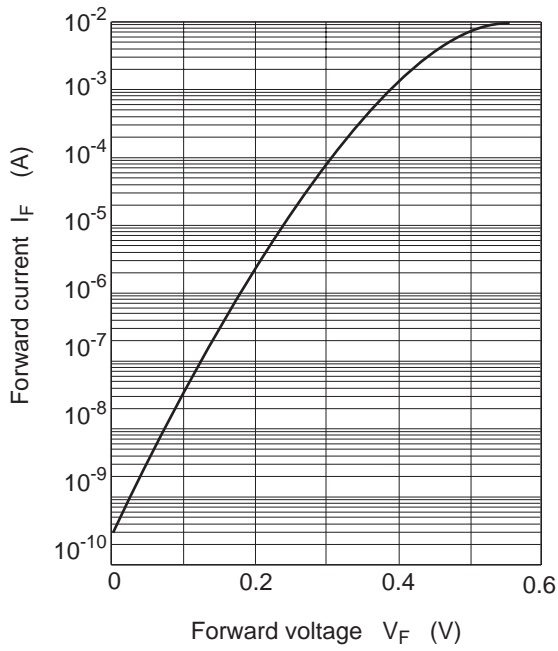


Fig.1 Forward current vs. Forward voltage

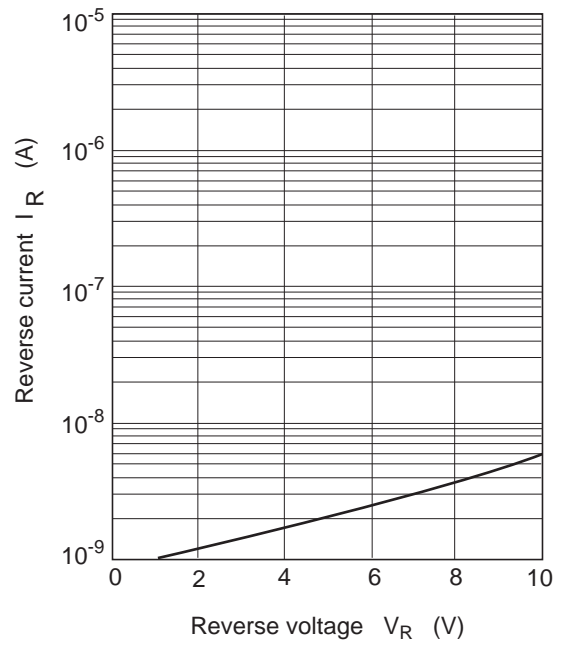


Fig.2 Reverse current vs. Reverse voltage

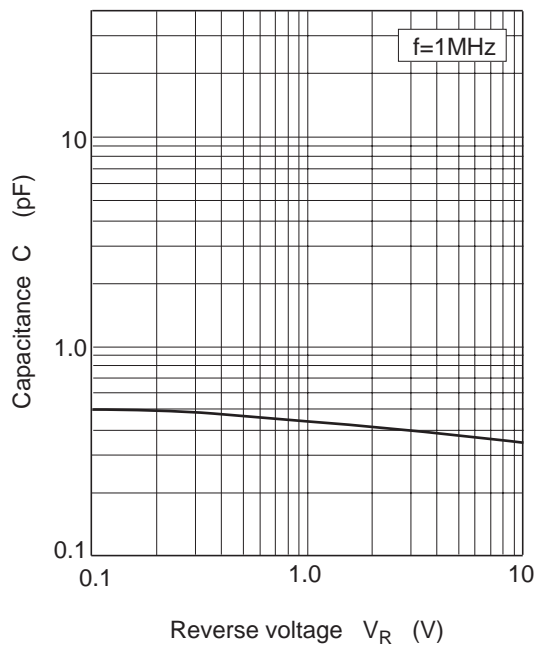
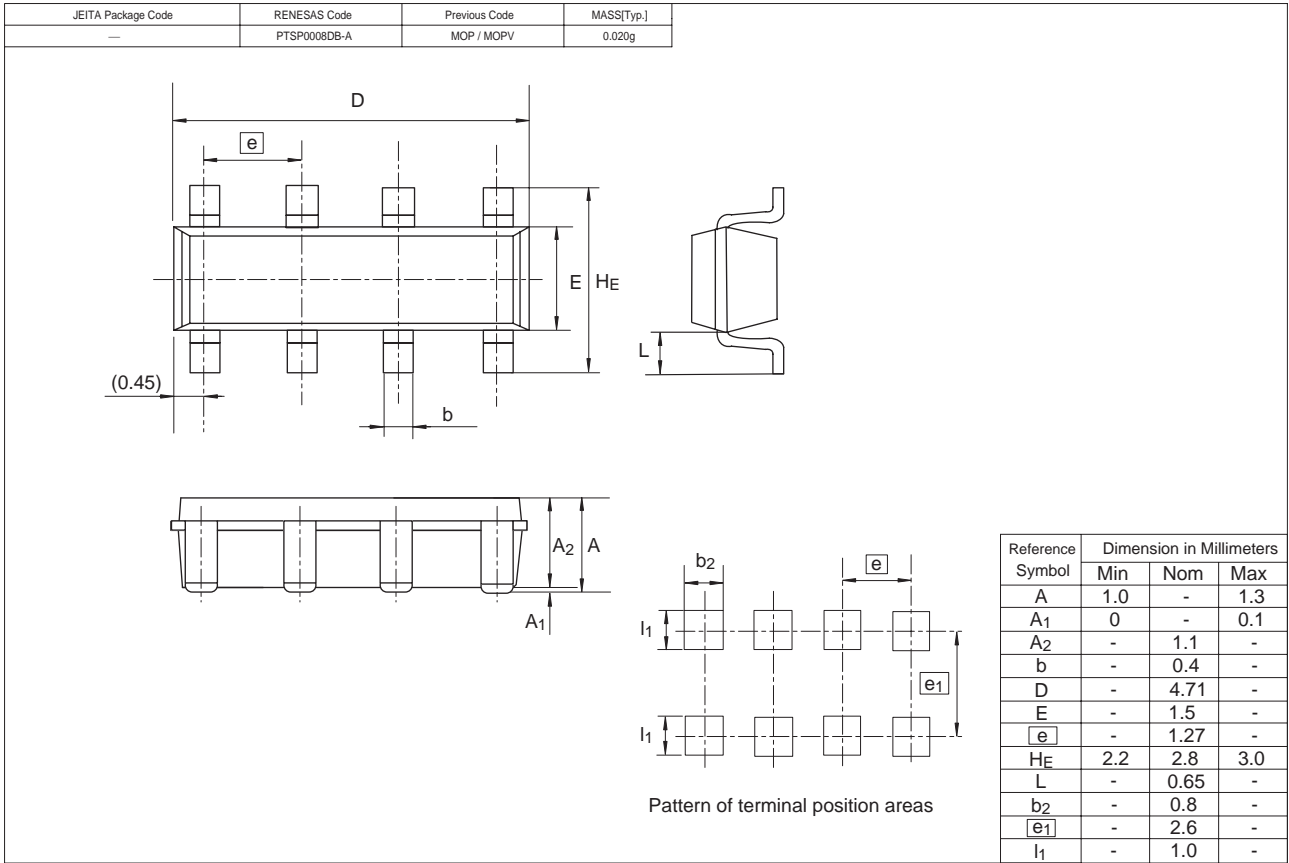


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions



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