HSB88WS

Silicon Schottky Barrier Diode for Balanced Mixer

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

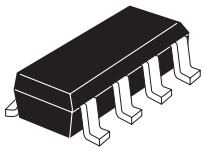
Features

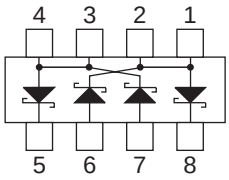
- Small ΔV_F and ΔC.
- Good for surface mounting on printed circuit board.
- Each diode can be biased.
- Wideband operation.

Ordering Information

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

Pin Arrangement





(Top view)

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	Pd *[1]	150	mW
Junction temperature	Tj	125	°C
Operation temperature	Topr	–40 to +85	°C
Storage temperature	Tstg	–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 mA
	V_{F2}	0.520	—	0.600		I_F = 10 mA
Reverse current	I_{R1}	—	—	0.2	μA	V_R = 2 V
	I_{R2}	—	—	10		V_R = 10 V
Capacitance	C	—	—	0.85	pF	V_R = 0 V, f = 1 MHz
Capacitance deviation	ΔC *[1]	—	—	0.2	pF	V_R = 0 V, f = 1 MHz
Forward voltage deviation	ΔV_F *[1]	—	—	15	mV	I_F = 10 mA
ESD-Capabilityme *[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 μA at V_R = 2 V

Main Characteristic

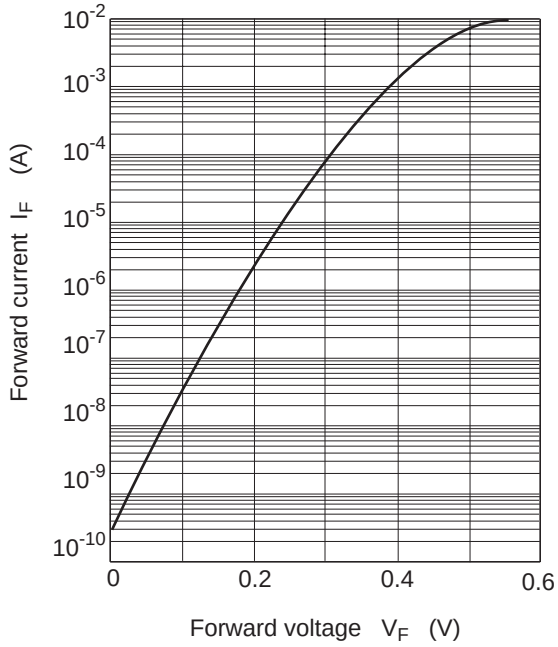


Fig.1 Forward current vs. Forward voltage

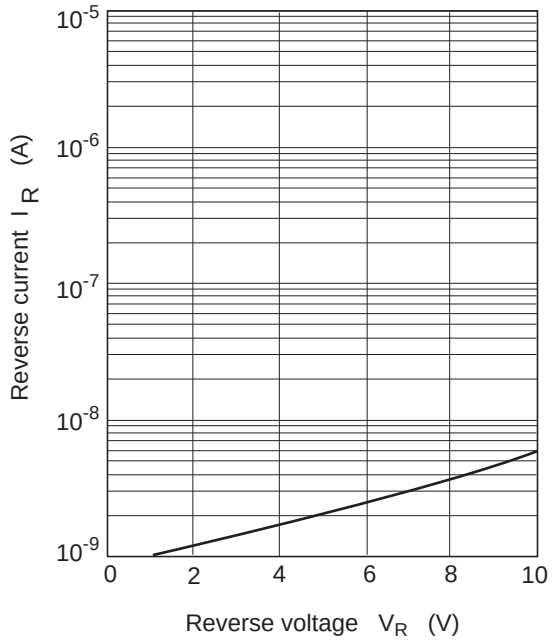


Fig.2 Reverse current vs. Reverse voltage

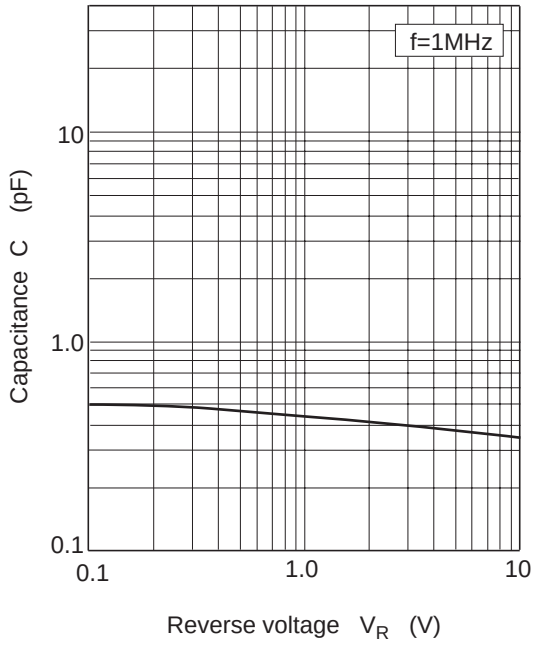
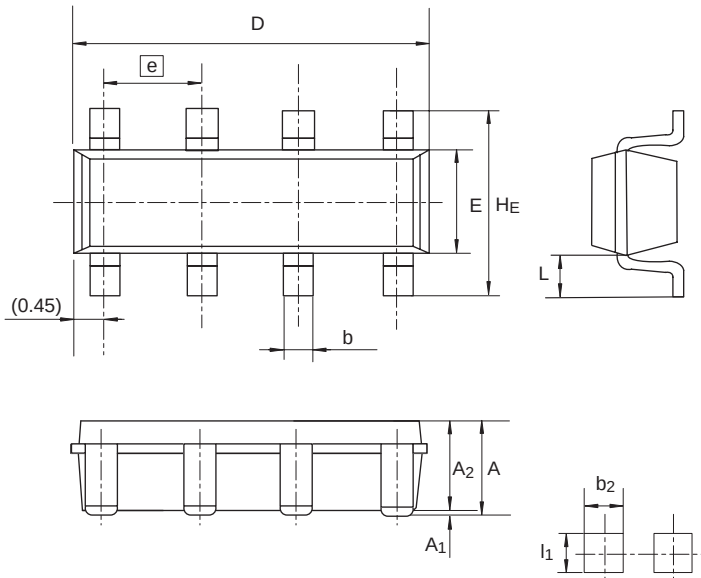
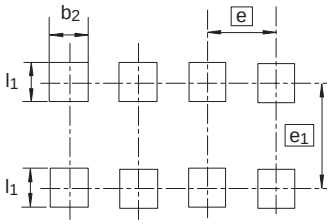


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions

JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
—	PTSP0008DB-A	MOP / MOPV	0.020g





Pattern of terminal position areas

Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A	1.0	-	1.3
A_1	0	-	0.1
A_2	-	1.1	-
b	-	0.4	-
D	-	4.71	-
E	-	1.5	-
e	-	1.27	-
H_E	2.2	2.8	3.0
L	-	0.65	-
b_2	-	0.8	-
e_1	-	2.6	-
l_1	-	1.0	-

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http://www.renesas.com

Refer to "**http://www.renesas.com/en/network**" for the latest and detailed information.

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Colophon 2.0