HSB278S

Silicon Schottky Barrier Diode for Detector

REJ03G0596-0100
(Previous: ADE-208-1383)
Rev.1.00
Apr 12, 2005

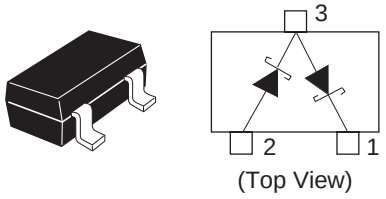
Features

- Low forward voltage, Low capacitance.
- CMPAK package is suitable for high density surface mounting and high speed assembly.

Ordering Information

Type No.	Laser Mark	Package Name	Package Code (Previous Code)
HSB278S	S2	CMPAK	PTSP0003ZB-A (CMPAK)

Pin Arrangement



(Top View)

1. Cathode 2
2. Anode 1
3. Cathode 1
   Anode 2

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Repetitive peak reverse voltage	V_{RRM}	30	V
Reverse voltage	V_R	30	V
Non-Repetitive peak forward surge current	I_{FSM} *1 *2	200	mA
Peak forward current	I_{FM} *2	150	mA
Average rectified current	I_O *2	30	mA
Junction temperature	Tj	125	°C
Storage temperature	Tstg	–55 to +125	°C

Notes: 1. 10 ms sine wave 1 pulse.
2. Per one device.

Electrical Characteristics *1

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_{F1}	—	—	0.30	V	I_F = 1 mA
	V_{F2}	—	—	0.95		I_F =30 mA
Reverse current	I_R	—	—	700	nA	V_R = 10 V
Capacitance *2	C	—	—	1.50	pF	V_R = 1 V, f = 1 MHz
ESD-Capability *1	—	100	—	—	V	C = 200 pF, R_L = 0 Ω, Both forward and reverse direction 1 pulse.

Notes: 1. Per one device.
2. Failure criterion ; I_R > 1.4 μA at V_R = 10 V

Main Characteristic

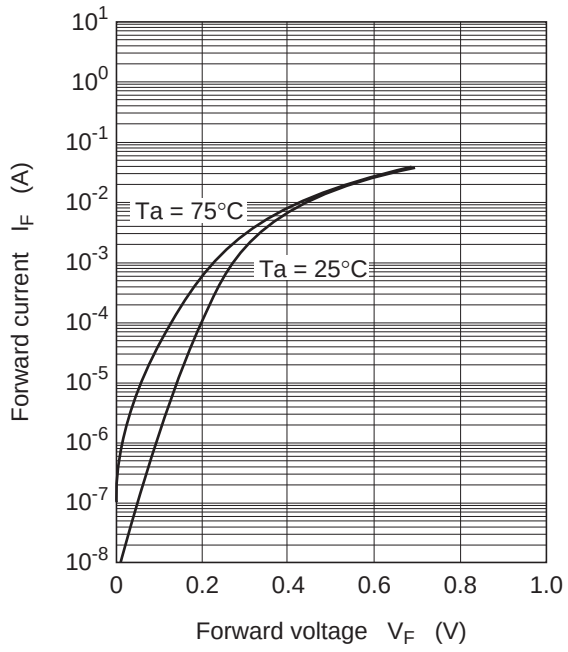


Fig.1 Forward current vs. Forward voltage

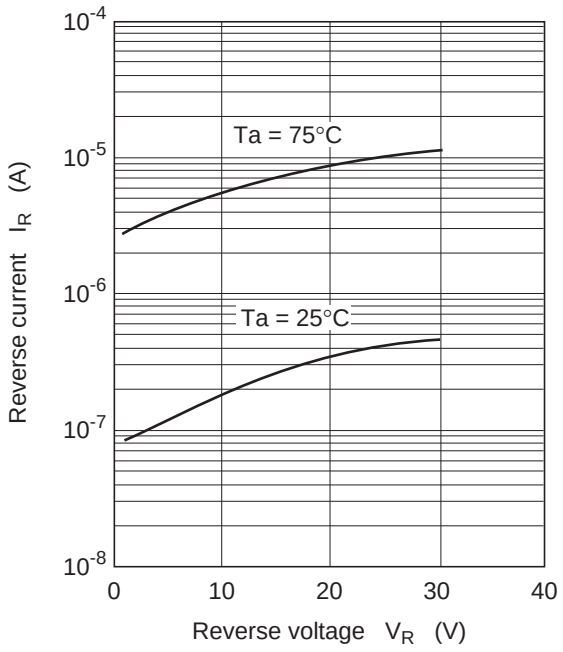


Fig.2 Reverse current vs. Reverse voltage

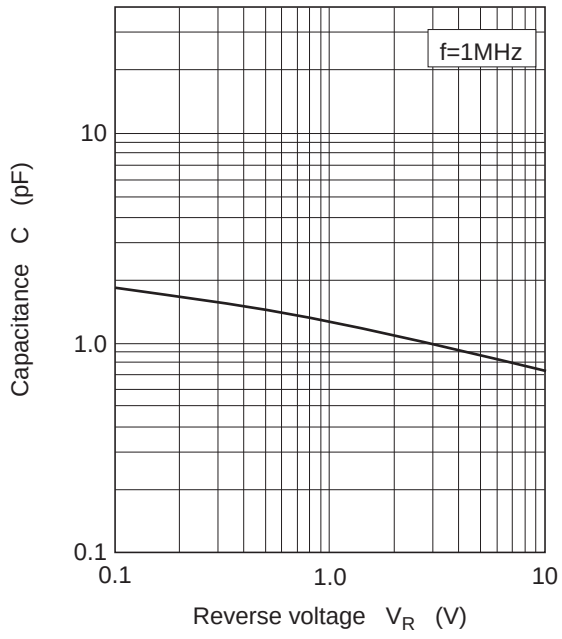
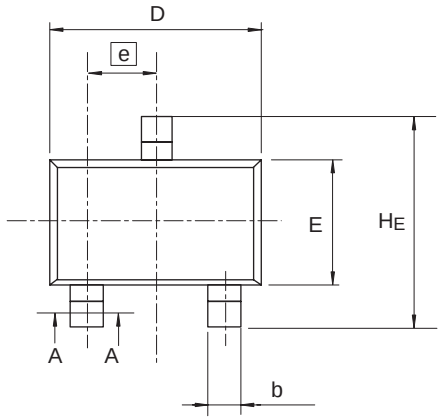
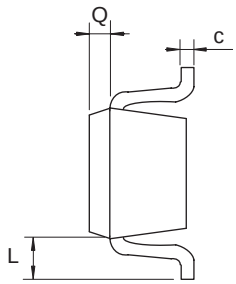


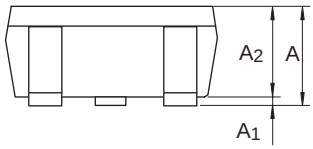
Fig.3 Capacitance vs. Reverse voltage

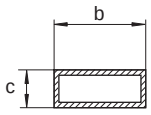
Package Dimensions

JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
SC-70	PTSP0003ZB-A	CMPAK / CMPAKV	0.006g

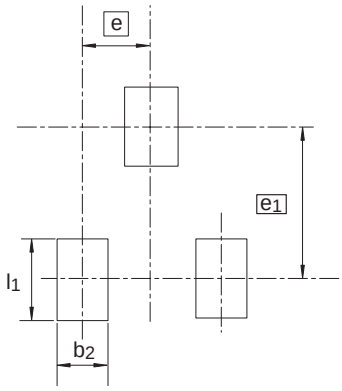








A — A Section



Pattern of terminal position areas

Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A	0.8	-	1.1
A_1	0	-	0.1
A_2	0.8	0.9	1.0
b	0.25	0.3	0.4
c	0.1	0.16	0.26
D	1.8	2.0	2.2
E	1.15	1.25	1.35
e	-	0.65	-
H_E	1.8	2.1	2.4
L	-	0.425	-
b_2	-	-	0.45
e_1	-	1.5	-
l_1	-	-	0.9
Q	-	0.2	-

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Colophon 2.0