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Renesas Electronics website: http://www.renesas.com

April 1st, 2010
Renesas Electronics Corporation

Not recommend for new design

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1SS88

Silicon Schottky Barrier Diode for CATV Balanced Mixer

REJ03G0615-0300
Rev.3.00
May 24, 2007

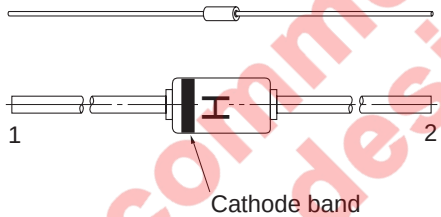
Features

- Low capacitance. (C = 0.97 pF max)
- High reliability with glass seal.

Ordering Information

Part No.	Cathode	Mark	Package Name	Package Code
1SS88	White	H	DO-35	GRZZ0002ZB-A

Pin Arrangement



1. Cathode
2. Anode

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Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	10	V
Peak forward current	I_{FM}	35	mA
Average rectified current	I_O	15	mA
Power dissipation	Pd	150	mW
Junction temperature	Tj	100	°C
Storage temperature	Tstg	–55 to +100	°C

Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_{F1}	365	—	430	mV	I_F = 1 mA
	V_{F2}	520	—	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	—	—	0.97	pF	V_R = 0 V, f = 1 MHz
Capacitance deviation *3	ΔC	—	—	0.1	pF	V_R = 0 V, f = 1 MHz
Forward voltage deviation *3	ΔV_{F1}	—	—	10	mV	I_F = 2.5 mA
	ΔV_{F2}	—	—	10		I_F = 10 mA
ESD-Capability *1	—	30	—	—	V	C = 200 pF, R = 0 Ω , Both forward and reverse direction 1 pulse.

Notes: 1. Failure criterion ; $I_R \geq 50$ μA at V_R = 10 V
2. Each group shall unify a multiple of 4 diodes.
3. Not applied to taping-type products.

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Main Characteristic

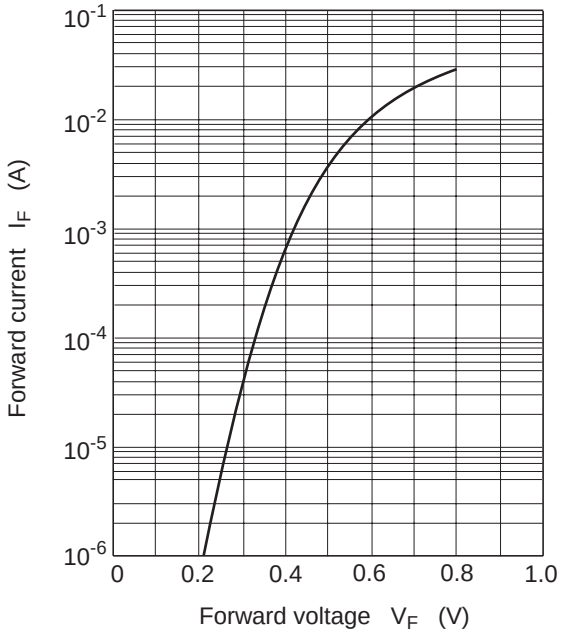

Fig.1 Forward current vs. Forward voltage

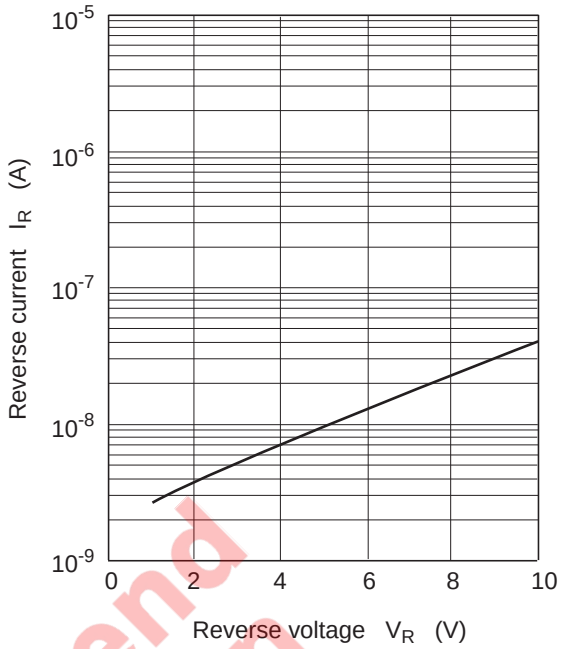

Fig.2 Reverse current vs. Reverse voltage

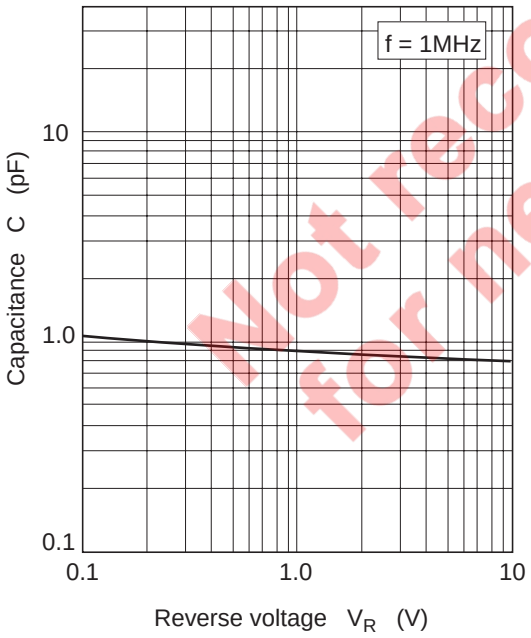

Fig.3 Capacitance vs. Reverse voltage

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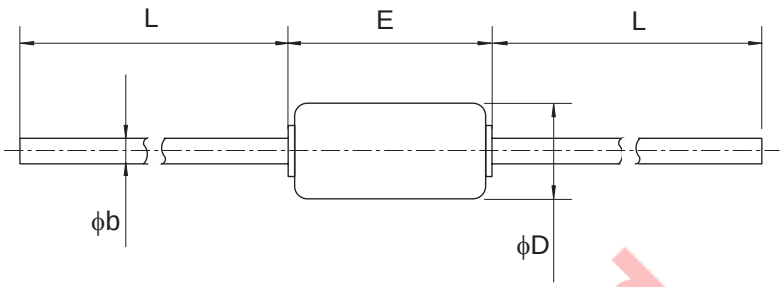
Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
DO-35	SC-40	GRZZ0002ZB-A	DO-35 / DO-35V	0.13g



Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
ϕb	-	0.5	-
ϕD	-	2.0	-
E	-	-	4.2
L	26.0	-	-

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