
1SS88

Silicon Schottky Barrier Diode for CATV Balanced Mixer

HITACHI

ADE-208-187A (Z)

Rev. 1
Oct. 2000

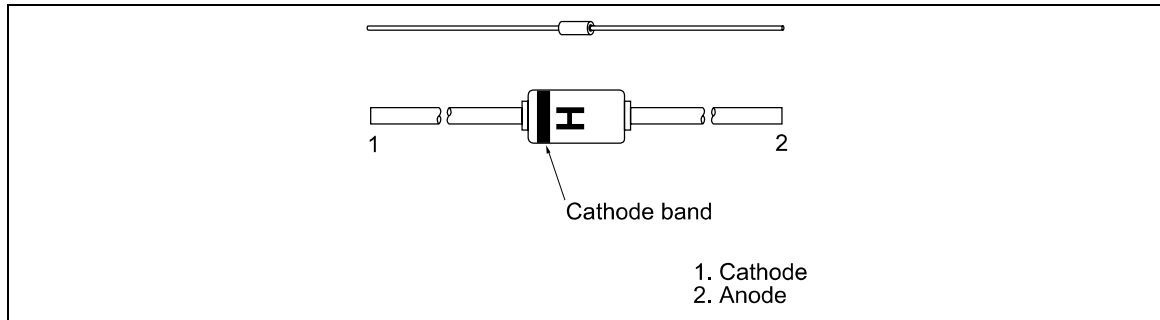
Features

- Low capacitance. ($C = 0.97 \text{ pF max}$)
- High reliability with glass seal.

Ordering Information

Type No.	Cathode band	Mark	Package Code
1SS88	White	H	DO-35

Outline



1SS88

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	10	V
Peak forward current	I_{FM}	35	mA
Average forward 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	$I_F = 1 \text{ mA}$
	V_{F2}	520	—	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	—	—	0.97	pF	$V_R = 0 \text{ V}$, f = 1 MHz
Capacitance deviation	ΔC	—	—	0.1	pF	$V_R = 0 \text{ V}$, f = 1 MHz
Forward voltage deviation	ΔV_{F1}	—	—	10	mV	$I_F = 2.5 \text{ mA}$
	ΔV_{F2}	—	—	10		$I_F = 10 \text{ mA}$
ESD-Capability *1	—	30	—	—	V	C = 200 pF, R = 0 Ω , Both forward and reverse direction 1 pulse.

Notes: 1. Failure criterion ; $I_R > 50 \mu\text{A}$ at $V_R = 10 \text{ V}$

2. Each group shall unify a multiple of 4 diodes

Main Characteristic

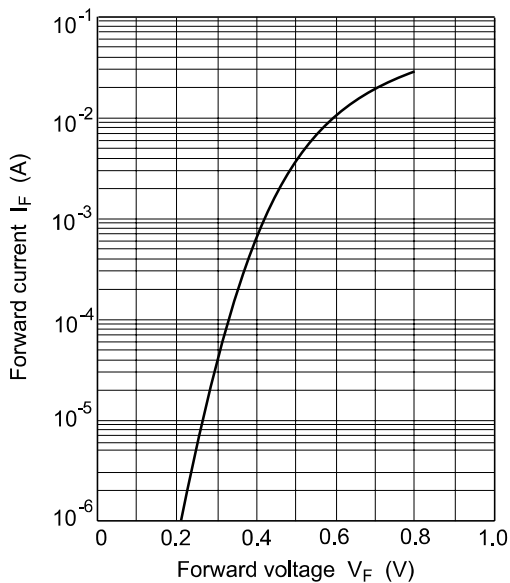


Fig.1 Forward current Vs. Forward voltage

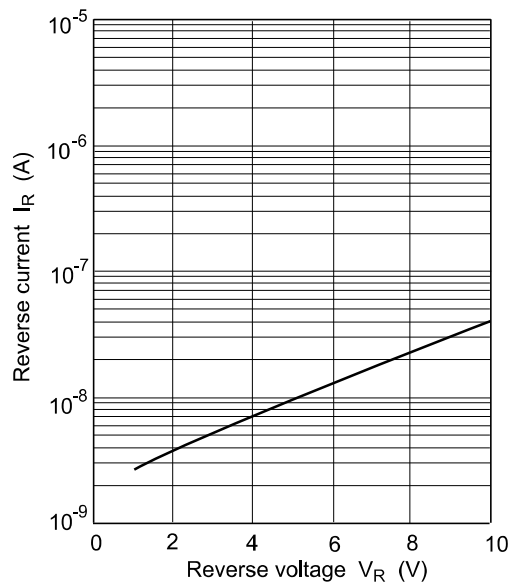


Fig.2 Reverse current Vs. Reverse voltage

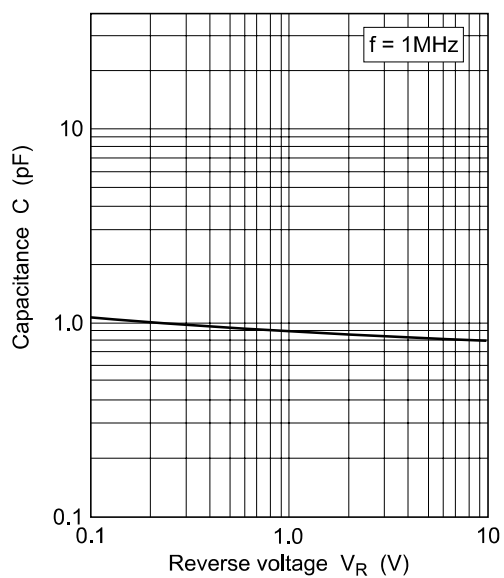


Fig.3 Capacitance Vs. Reverse voltage