

# 1SS108

## Silicon Schottky Barrier Diode for Various Detector, High Speed Switching

# HITACHI

Preliminary  
Rev. 0  
Oct 1993

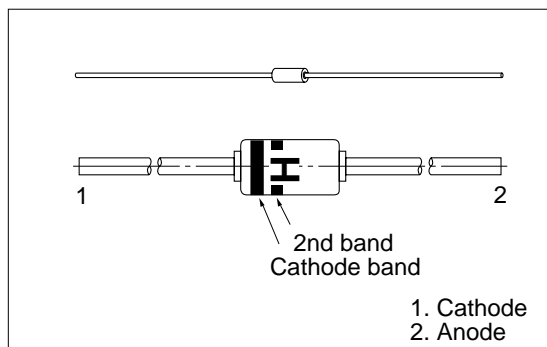
### Features

- Detection efficiency is very good.
- Small temperature coefficient.
- High reliability with glass seal.

### Ordering Information

Type No.	Cathode	2nd band	Mark	Package Code
1SS108	White	Black	H	DO-35

### Outline



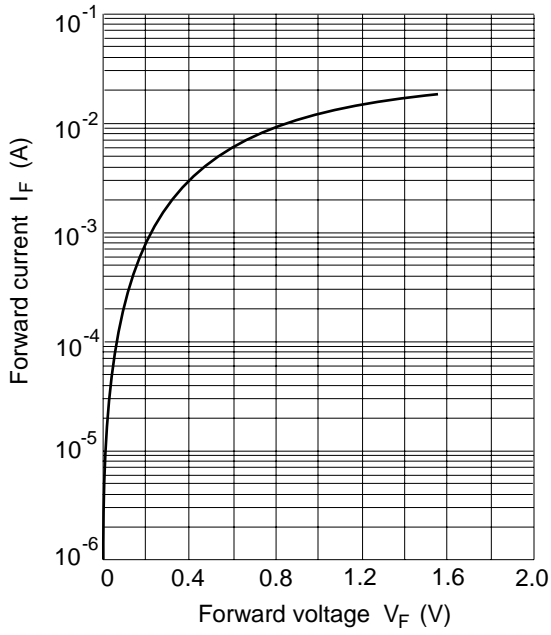
### Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	$V_R$	30	V
Average forward current	$I_o$	15	mA
Junction temperature	$T_j$	125	°C
Storage temperature	$T_{stg}$	-55 to +125	°C

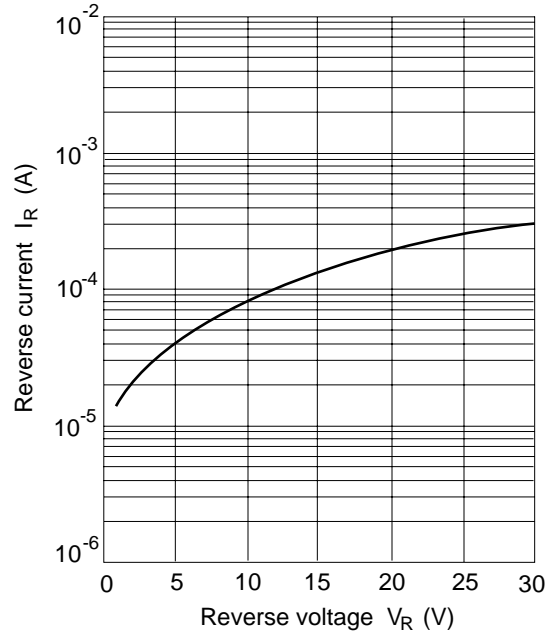
### Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward current	$I_F$	3.0	—	—	mV	$V_F = 1\text{ V}$
Reverse current	$I_R$	—	—	100	$\mu\text{A}$	$V_R = 10\text{ V}$
Capacitance	C	—	—	3.0	pF	$V_R = 1\text{ V}, f = 1\text{ MHz}$
Rectifier efficiency	$\eta$	70	—	—	%	$V_{in} = 2V_{rms}, f = 40\text{ MHz}, R_L = 5k\Omega, C_L = 20\text{ pF}$
ESD-Capability	—	70	—	—	V	*C=200pF, Both forward and reverse direction 1 pulse.

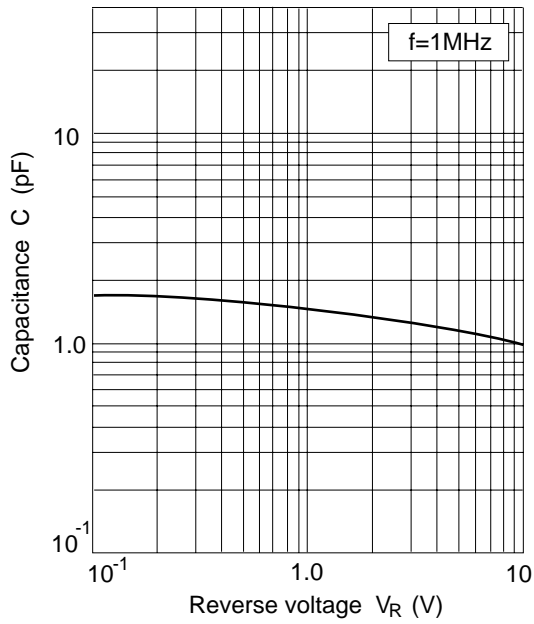
\* Failure criterion ;  $I_R \geq 200\mu\text{A}$  at  $V_R = 10\text{ V}$



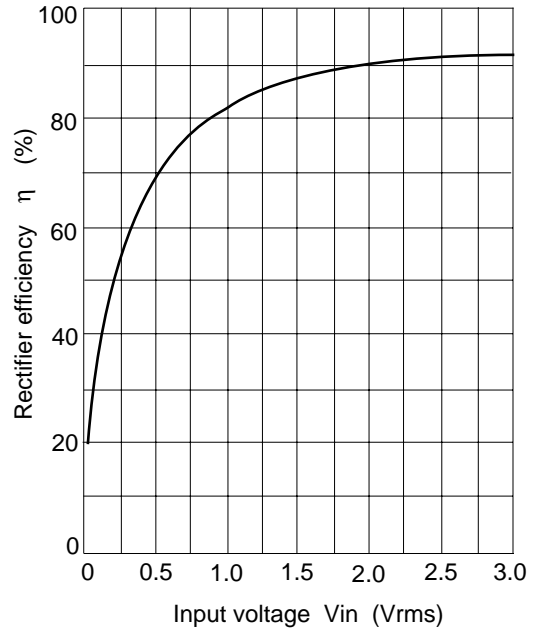
**Fig.1 Forward current Vs. Forward voltage**



**Fig.2 Reverse current Vs. Reverse voltage**



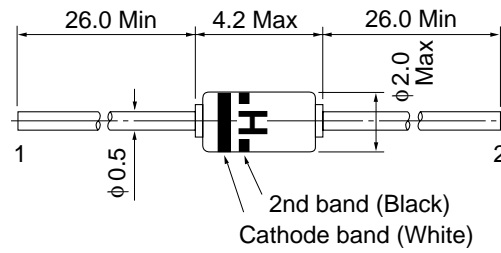
**Fig.3 Capacitance Vs. Reverse voltage**



**Fig.4 Rectifier efficiency Vs. Input voltage**

### Package Dimensions

Unit: mm



HITACHI Code	DO-35
JEDEC Code	DO-35
EIAJ Code	SC-48
Weight (g)	0.13