

# 1SS106

Silicon Schottky Barrier Diode for Various Detector,  
High Speed Switching

# HITACHI

ADE-208-153A (Z)

Rev. 1

Oct. 1998

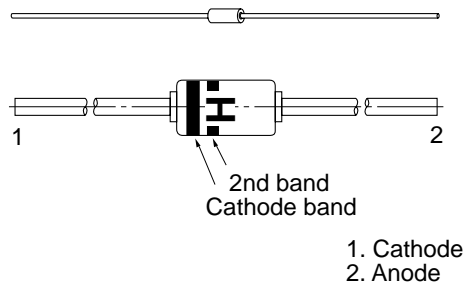
## Features

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

## Ordering Information

Type No.	Cathode	2nd band	Mark	Package Code
1SS106	White	White	H	DO-35

## Outline



**Absolute Maximum Ratings** ( $T_a = 25^\circ\text{C}$ )

Item	Symbol	Value	Unit
Reverse voltage	$V_R$	10	V
Average rectified current	$I_O$	30	mA
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +125	$^\circ\text{C}$

**Electrical Characteristics** ( $T_a = 25^\circ\text{C}$ )

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward current	$I_F$	4.5	—	—	mA	$V_F = 1\text{V}$
Reverse current	$I_R$	—	—	70	$\mu\text{A}$	$V_R = 6\text{V}$
Capacitance	$C$	—	—	1.5	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 <sup>1</sup>	—	100	—	—	V	$C = 200\text{pF}$ , Both forward and reverse direction 1 pulse.

Notes: 1. Failure criterion;  $I_R \geq 140\mu\text{A}$  at  $V_R = 6\text{V}$

Main Characteristic

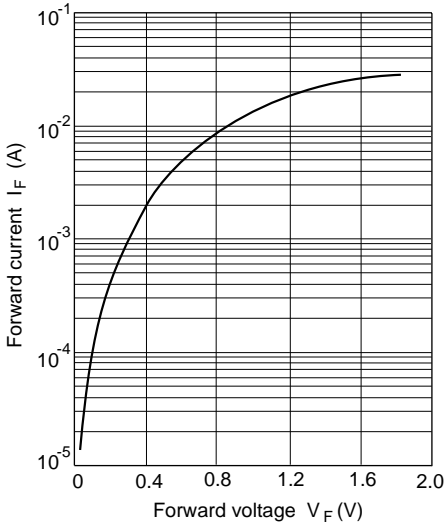


Fig.1 Forward current Vs. Forward voltage

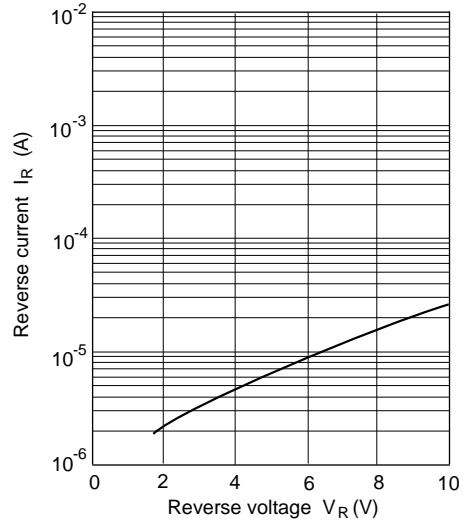


Fig.2 Reverse current Vs. Reverse voltage

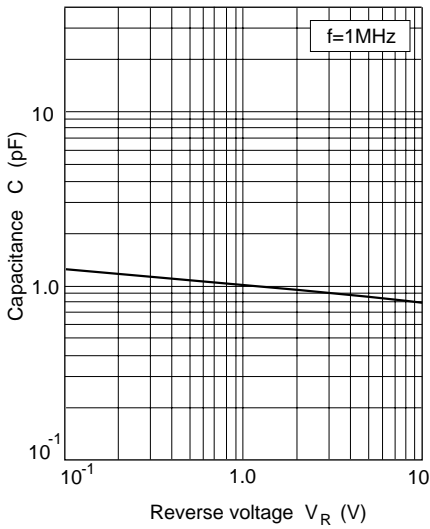


Fig.3 Capacitance Vs. Reverse voltage

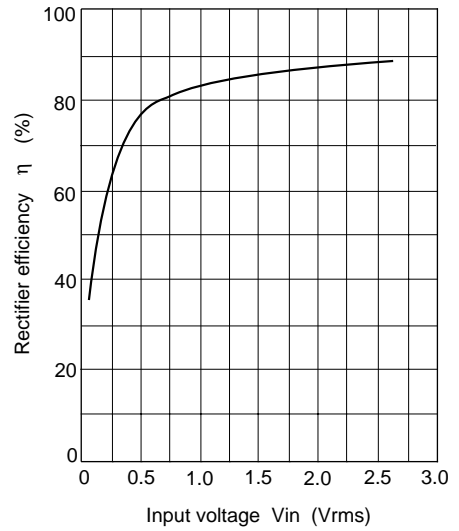
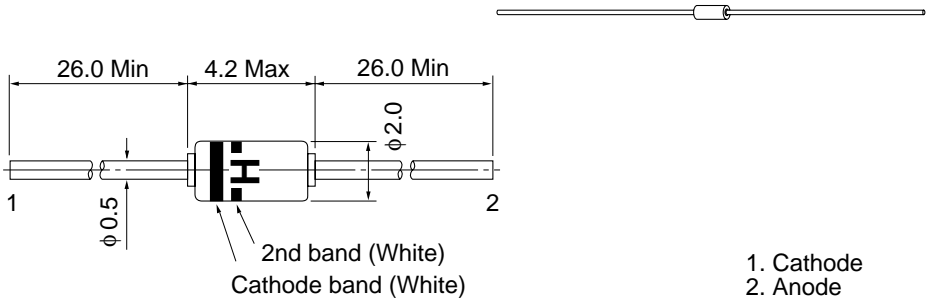


Fig.4 Rectifier efficiency Vs. Input voltage  $V_{in}$

## Package Dimensions



- 1. Cathode
- 2. Anode

Hitachi Code	DO-35
JEDECCode	DO-35
EIAJCode	SC-48
Weight(g)	0.13

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