

1SS106

Silicon Schottky Barrier Diode for Various Detector, High Speed Switching

HITACHI

Preliminary
Rev. 0
Oct 1993

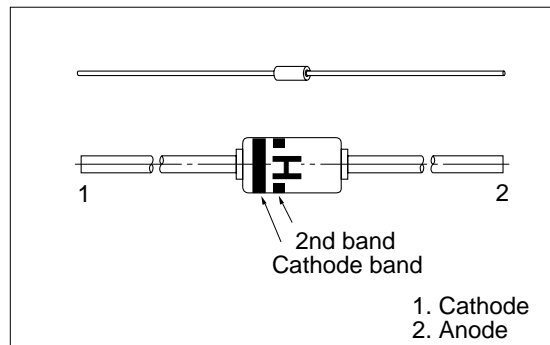
Features

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

Ordering Information

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

Outline



Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	10	V
Average forward current	I_o	30	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	4.5	—	—	mV	$V_F = 1\text{ V}$
Reverse current	I_R	—	—	70	μA	$V_R = 6\text{ V}$
Capacitance	C	—	—	1.5	pF	$V_R = 1\text{ V}, f = 1\text{ MHz}$
Rectifier efficiency	η	70	—	—	%	$V_{in}=2V_{rms}, f=40\text{MHz}, R_L=5k\Omega$ $C_L=20\text{pF}$
ESD-Capability	—	100	—	—	V	*C=200pF, Both forward and reverse direction 1 pulse.

* Failure criterion ; $I_R \geq 140\mu\text{A}$ at $V_R = 6\text{ V}$

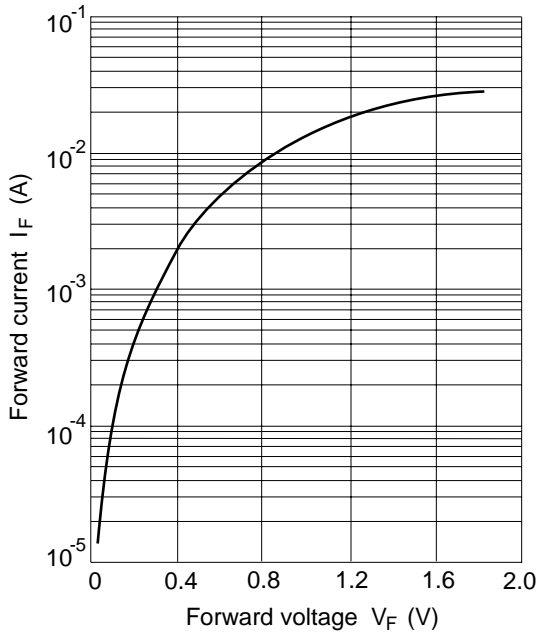


Fig.1 Forward current Vs. Forward voltage

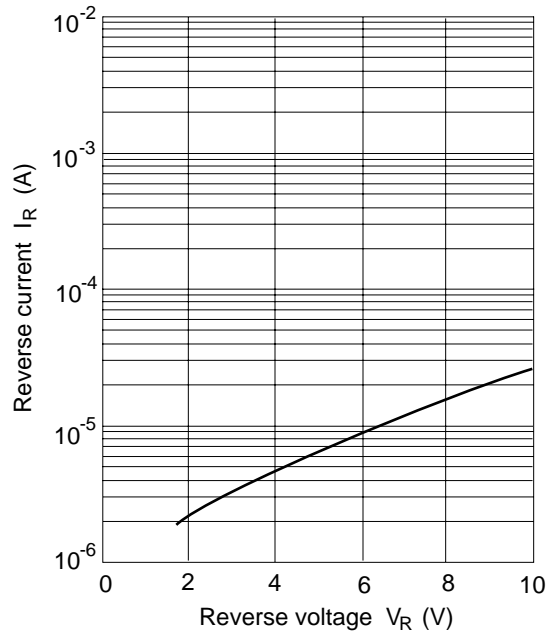


Fig.2 Reverse current Vs. Reverse voltage

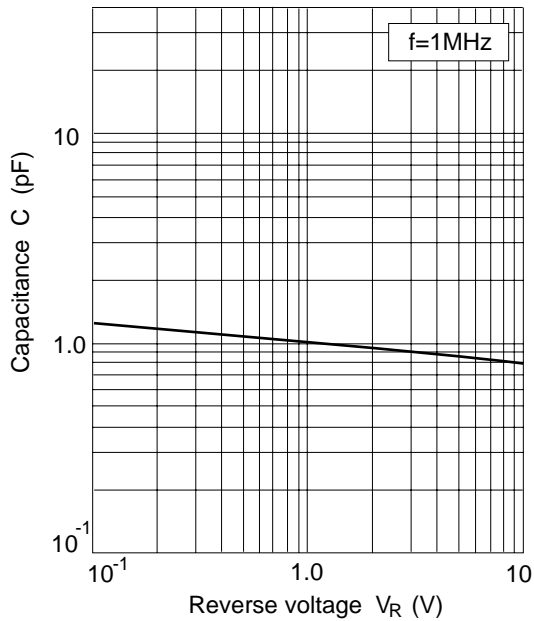


Fig.3 Capacitance Vs. Reverse voltage

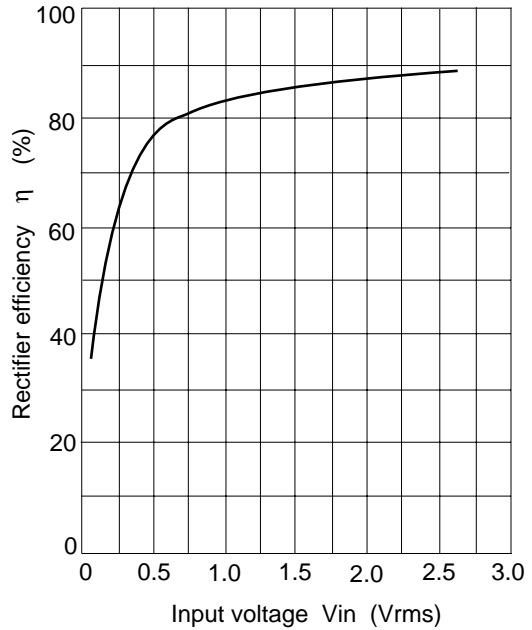
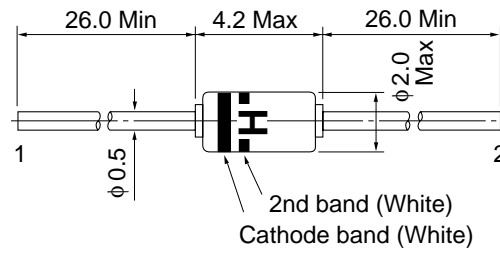


Fig.4 Rectifier efficiency Vs. Input voltage

Package Dimensions

Unit: mm



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