

1SS199

Silicon Schottky Barrier Diode for Various Detector, High Speed Switching

HITACHI

Rev. 0
Dec. 1994

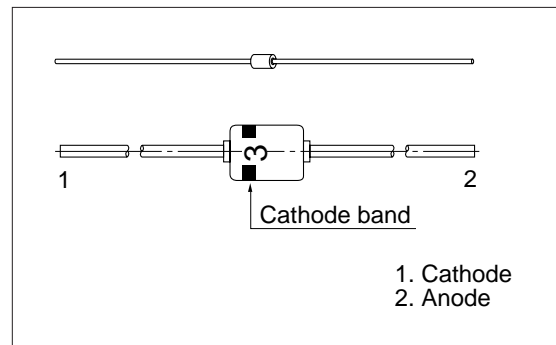
Features

- Detection efficiency is very good.
- Small temperature coefficient.
- Small glass package (MHD) enables easy mounting and high reliability.

Ordering Information

Type No.	Cathode band	Mark	Package Code
1SS199	Green	3	MHD

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	μA	$V_R = 10\text{ V}$
Capacitance	C	—	—	3.0	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	—	70	—	—	V	*C=200pF, Both forward and reverse direction 1 pulse.

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

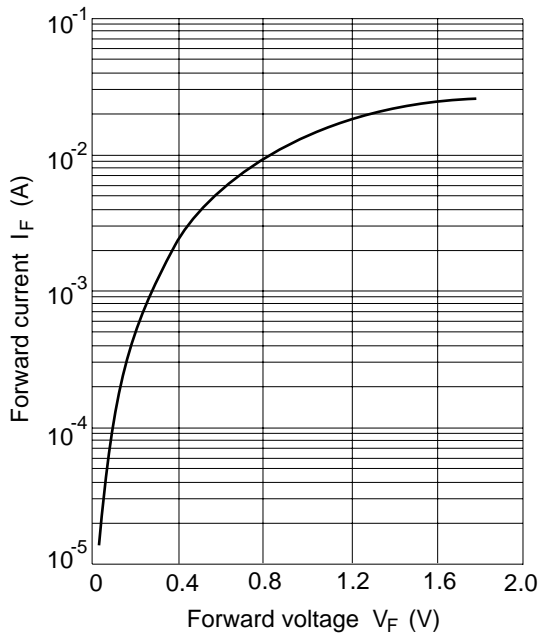


Fig.1 Forward current Vs. Forward voltage

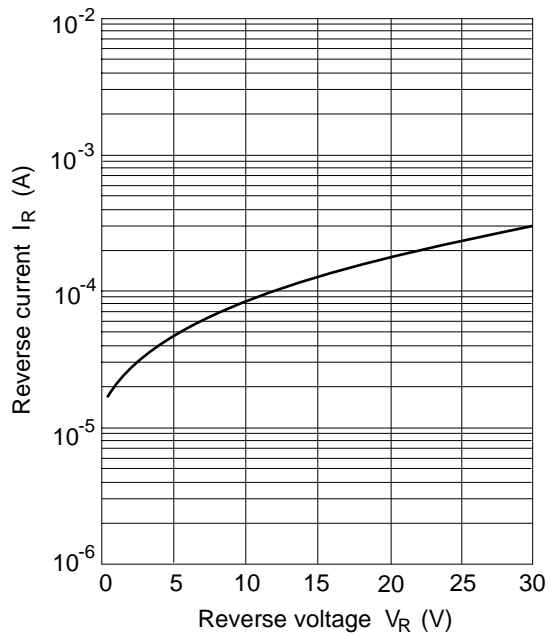


Fig.2 Reverse current Vs. Reverse voltage

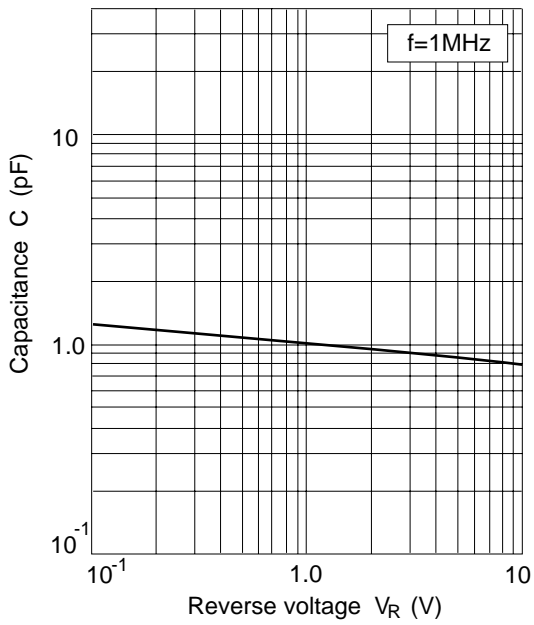


Fig.3 Capacitance Vs. Reverse voltage

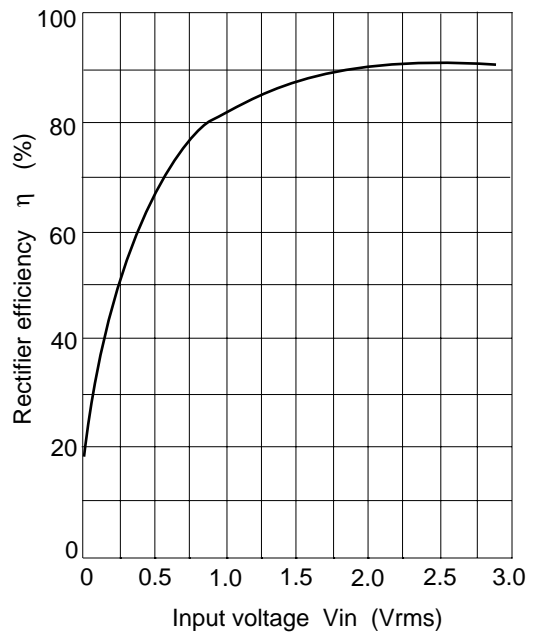
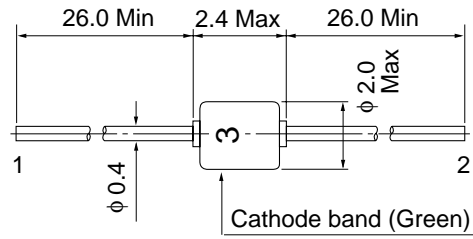


Fig.4 Rectifier efficiency Vs. Input voltage

Package Dimensions

Unit: mm



1 Cathode
2 Anode

HITACHI Code	MHD
JEDEC Code	DO-34
EIAJ Code	—
Weight (g)	0.084