

1SS84 Silicon Epitaxial Planar Diode for High Speed Switching

HITACHI

Rev. 1
Aug. 1995

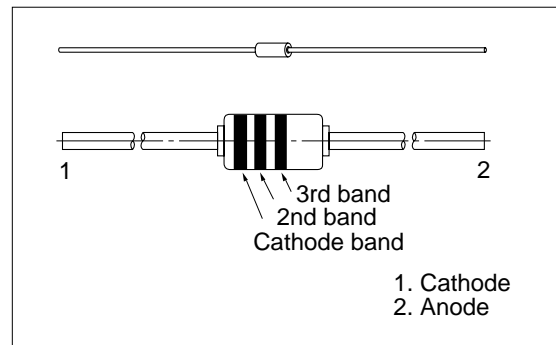
Features

- Low reverse current.
- High reliability with glass seal.

Ordering Information

Type No.	Cathode	2nd band	3rd band	Package Code
1SS84	Light Blue	Dark Green	Dark Green	DO-35

Outline



Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	V_{RM}	75	V
Reverse voltage	V_R	70	V
Peak forward current	I_{FM}	450	mA
Non-Repetitive peak forward surge current	I_{FSM}^*	1	A
Average forward current	I_o	150	mA
Power dissipation	P_d	250	mW
Junction temperature	T_j	175	°C
Storage temperature	T_{stg}	-65 to +175	°C

* Within 1s forward surge current.

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_F	—	—	0.8	V	$I_F = 10 \text{ mA}$
	I_{R1}	—	0.3	3		$V_R = 0.3 \text{ V}$
Reverse current	I_{R2}	—	—	10	nA	$V_R = 20 \text{ V}$
	I_{R3}	—	—	100		$V_R = 55 \text{ V}$
Capacitance	C	—	—	5	pF	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$
Reverse recovery time	t_{rr}	—	—	50	ns	$I_F = I_R = 10 \text{ mA}, I_{rr} = 1 \text{ mA}, R_L = 100 \Omega$

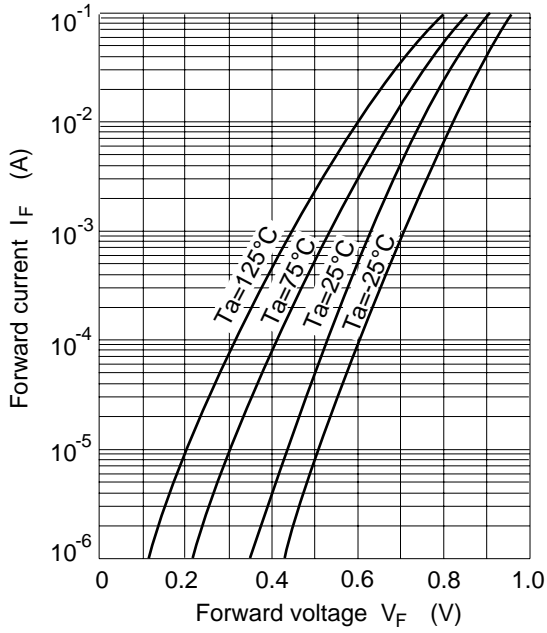


Fig.1 Forward current Vs. Forward voltage

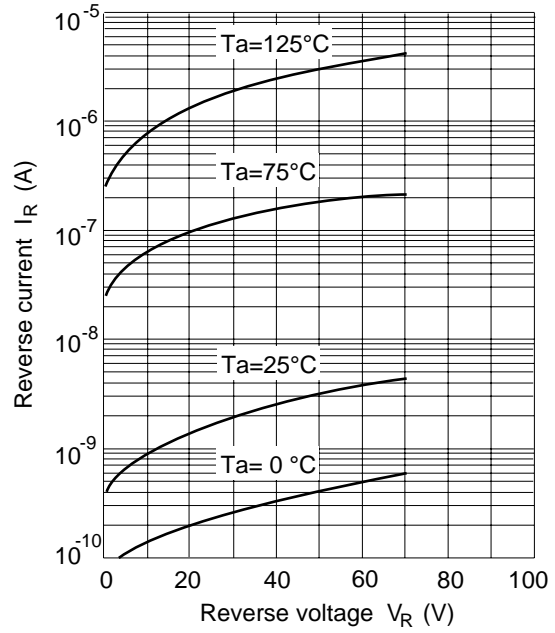


Fig.2 Reverse current Vs. Reverse voltage

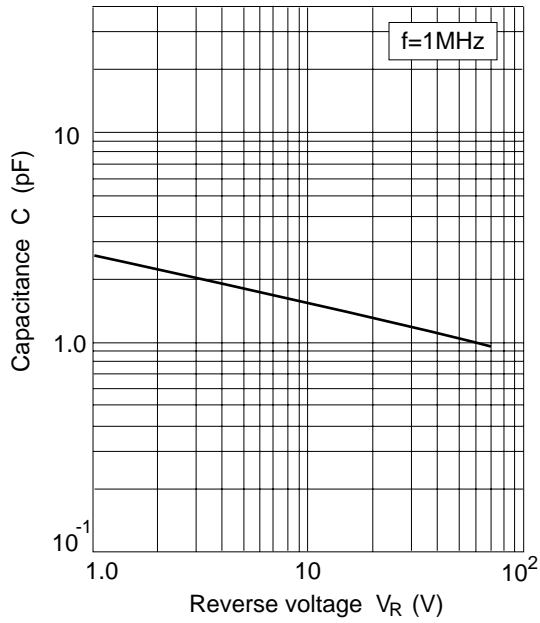
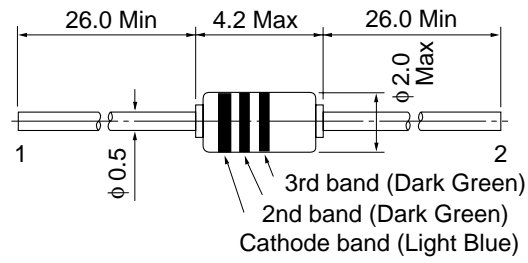


Fig.3 Capacitance Vs. Reverse voltage

Package Dimensions

Unit: mm



- 1 Cathode
- 2 Anode

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