

1SS83 Silicon Epitaxial Planar Diode for High Voltage Switching

HITACHI

Rev. 1
Jul. 1995

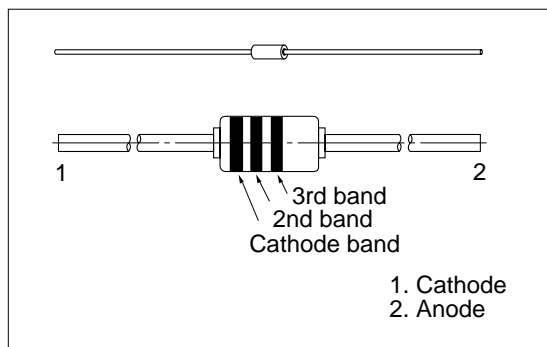
Features

- High reverse voltage. ($V_R=250V$)
- High reliability with glass seal.

Ordering Information

Type No.	Cathode band	2nd band	3rd band	Package Code
1SS83	Verdure	Light Blue	Light Blue	DO-35

Outline



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

Item	Symbol	Value	Unit
Peak reverse voltage	V_{RM}^*	300	V
Reverse voltage	V_R	250	V
Peak forward current	I_{FM}	625	mA
Non-Repetitive peak forward surge current	I_{FSM}^{**}	1	A
Average forward current	I_o	200	mA
Power dissipation	P_d	400	mW
Junction temperature	T_j	175	$^\circ C$
Storage temperature	T_{stg}	-65 to +175	$^\circ C$

* Reverse voltage in excess of peak reverse voltage may deteriorate electrical characteristic.

** Within 1s forward surge current.

Electrical Characteristics ($T_a = 25^\circ C$)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_F	—	—	1.0	V	$I_F = 100 \text{ mA}$
Reverse current	I_{R1}	—	—	0.2	μA	$V_R = 250 \text{ V}$
	I_{R2}	—	—	100		$V_R = 300 \text{ V}$
Capacitance	C	—	1.5	—	pF	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$
Reverse recovery time	t_{rr}	—	—	100	ns	$I_F=I_R=30\text{mA}, I_{rr}=3\text{mA}, R_L=100\Omega$

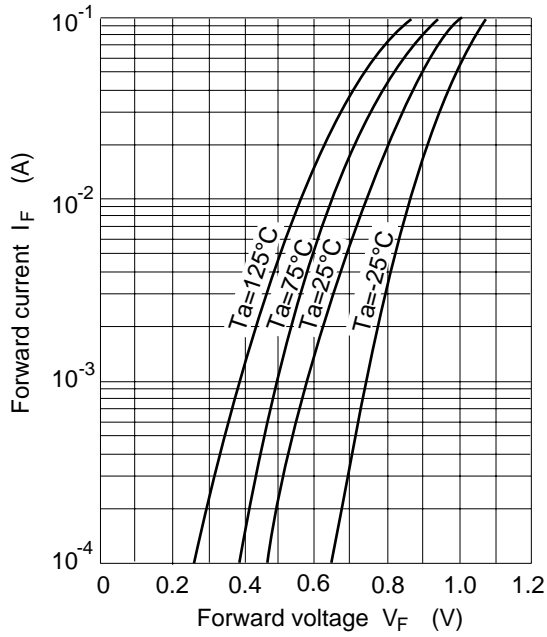


Fig.1 Forward current Vs. Forward voltage

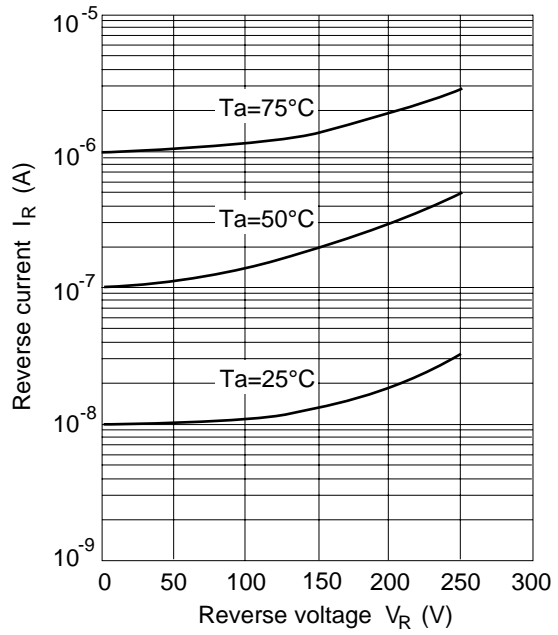


Fig.2 Reverse current Vs. Reverse voltage

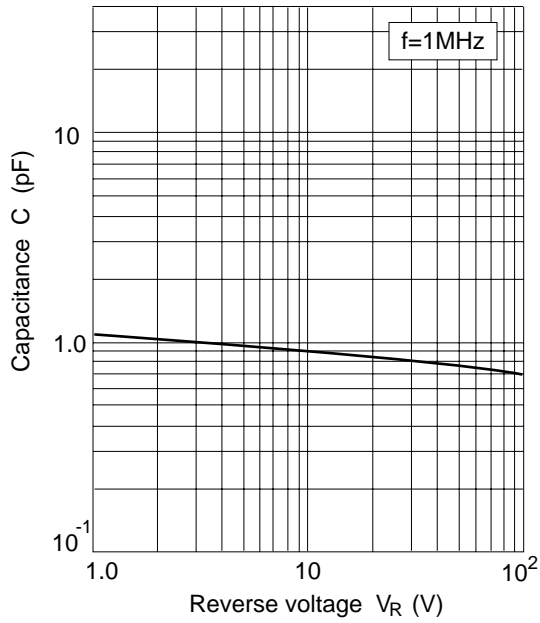
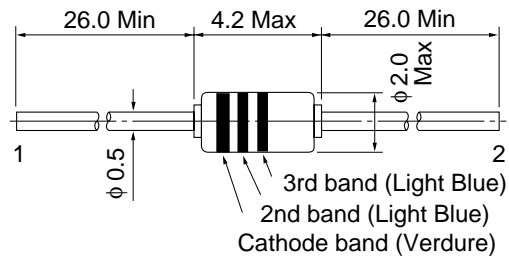


Fig.3 Capacitance Vs. Reverse voltage

Package Dimensions

Unit: mm



- 1 Cathode
- 2 Anode

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