

# 1SS83

## Silicon Epitaxial Planar Diode for High Voltage Switching

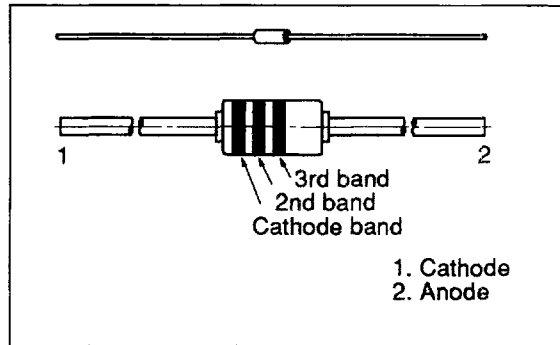
### Features

- 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 \*\* ( $T_a = 25^\circ C$ )

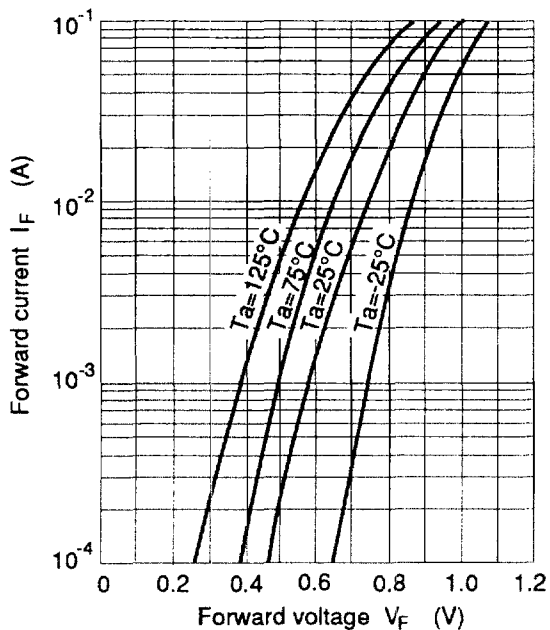
Item	Symbol	Value	Unit
Peak reverse voltage	$V_{RM}^*$	300	V
Reverse voltage	$V_R$	250	V
Peak forward current	$I_{FM}$	625	mA
Non-Repetitive peak forward surge current	$I_{FSM}^{**}$	1	A
Average forward current	$I_o$	200	mA
Power dissipation	$P_d$	400	mW
Junction temperature	$T_j$	175	$^\circ C$
Storage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

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

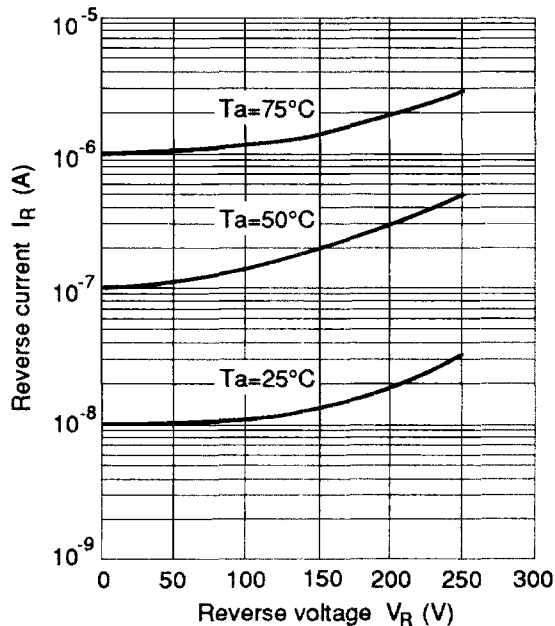
\*\* Within 1s forward surge current.

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

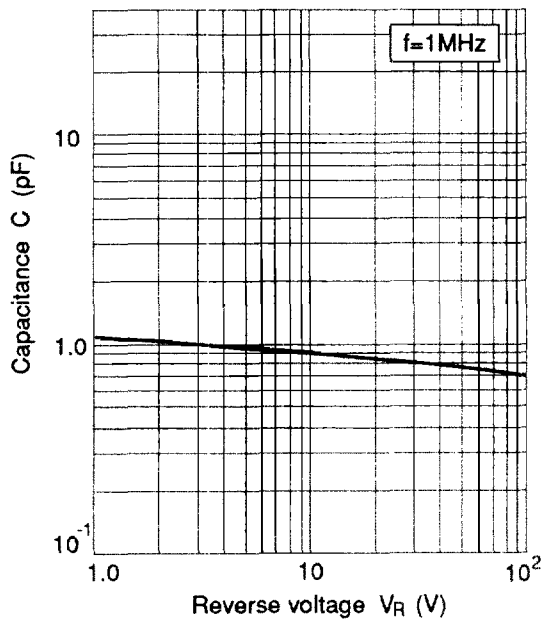
Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_F$	—	—	1.0	V	$I_F = 100 \text{ mA}$
Reverse current	$I_{R1}$	—	—	0.2	$\mu A$	$V_R = 250 \text{ V}$
	$I_{R2}$	—	—	100		$V_R = 300 \text{ V}$
Capacitance	C	—	1.5	—	pF	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$
Reverse recovery time	$t_{rr}$	—	—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