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# 1SS83

Silicon Epitaxial Planar Diode for High Voltage Switching

# HITACHI

ADE-208-150B (Z)

Rev.2  
Oct. 2000

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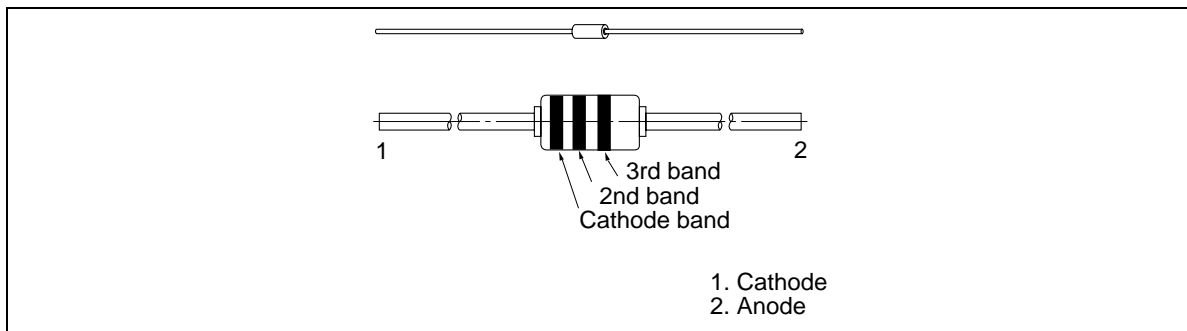
## Features

- High reverse voltage. ( $V_R = 250\text{ V}$ )
- 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



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# 1SS83

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## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	$V_{RM}^{*1}$	300	V
Reverse voltage	$V_R$	250	V
Peak forward current	$I_{FM}$	625	mA
Non-Repetitive peak forward surge current	$I_{FSM}^{*2}$	1	A
Average forward current	$I_O$	200	mA
Power dissipation	Pd	400	mW
Junction temperature	Tj	175	°C
Storage temperature	Tstg	-65 to +175	°C

Notes: 1. Reverse voltage in excess of peak reverse voltage may deteriorate electrical characteristic.  
2. Within 1s forward surge current.

## Electrical Characteristics

(Ta = 25°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	$\mu\text{A}$	$V_R = 250 \text{ V}$
	$I_{R2}$	—	—	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	$I_F = I_R = 30 \text{ mA}, I_{rr} = 3 \text{ mA}, R_L = 100 \Omega$

Main Characteristic

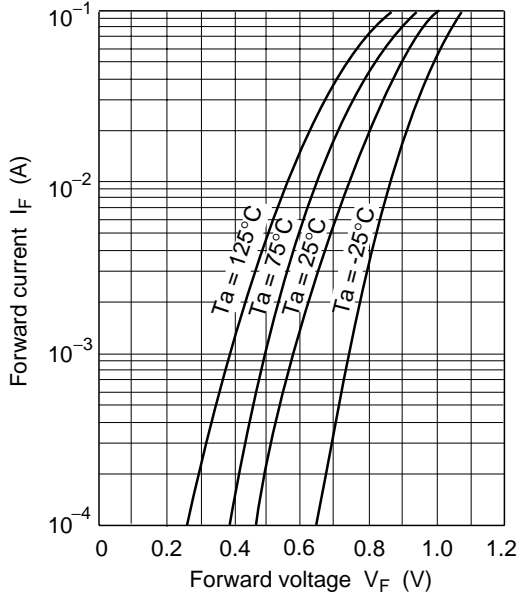


Fig.1 Forward current Vs. Forward voltage

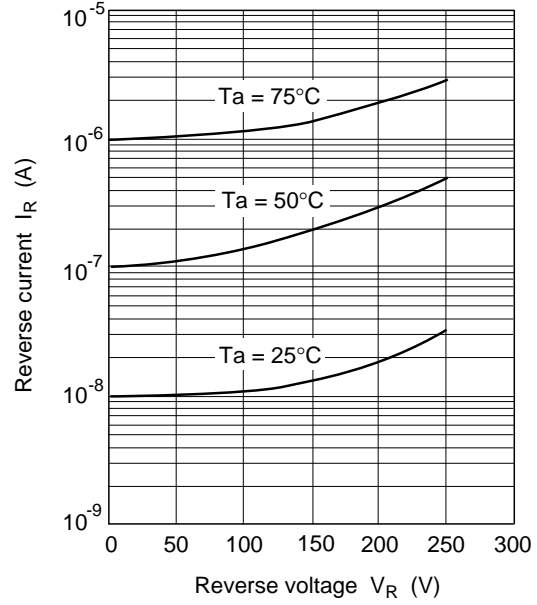


Fig.2 Reverse current Vs. Reverse voltage

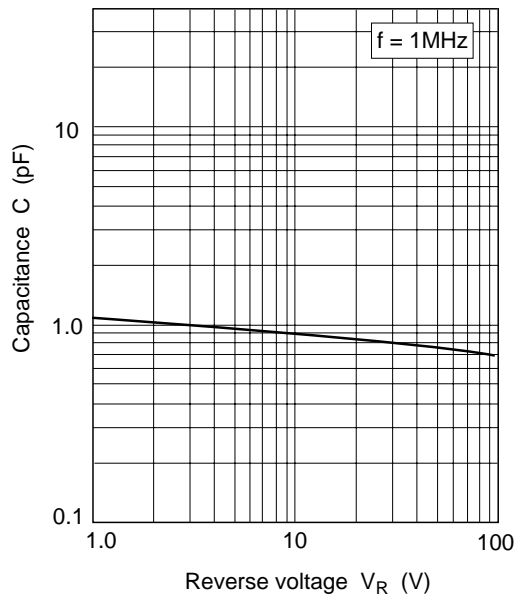


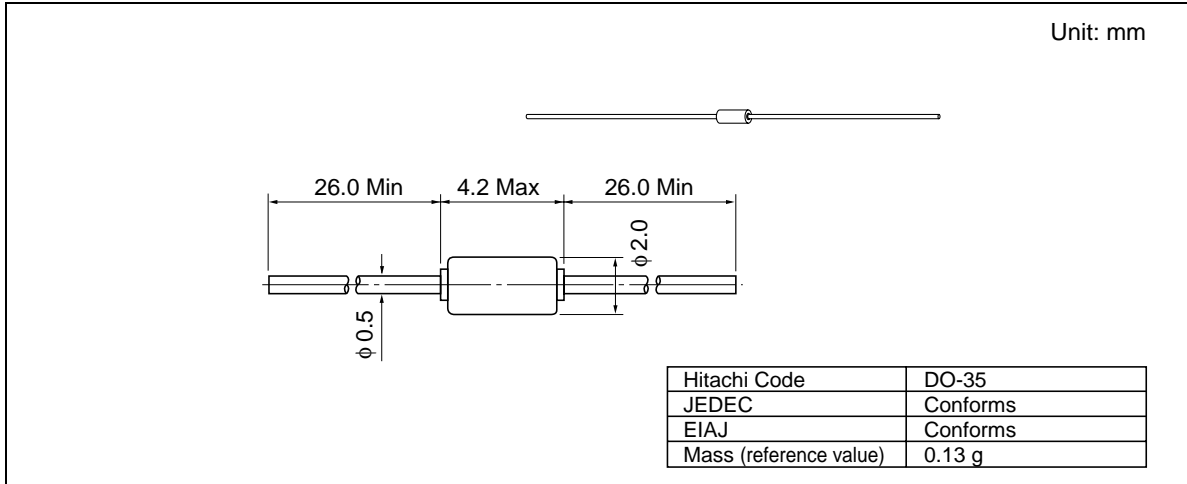
Fig.3 Capacitance Vs. Reverse voltage

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# 1SS83

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## Package Dimensions



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