

# 1SS270

Silicon Epitaxial Planar Diode for High Speed Switching

# HITACHI

ADE-208-165A (Z)

Rev. 1

Aug. 1995

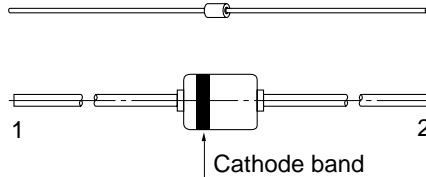
## Features

- Low capacitance. ( $C = 3.0\text{pF max}$ )
- Short reverse recovery time. ( $t_r = 3.5\text{ns max}$ )
- Small glass package (MHD) enables easy mounting and high reliability.

## Ordering Information

Type No.	Cathode band	Package Code
1SS270	Light Blue	MHD

## Outline



1. Cathode
2. Anode

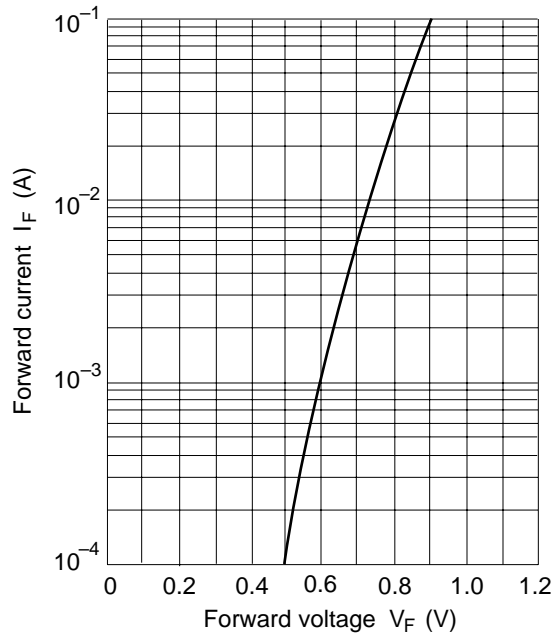
**Absolute Maximum Ratings** ( $T_a = 25^\circ\text{C}$ )

Item	Symbol	Value	Unit
Peak reverse voltage	$V_{RM}$	35	V
Reverse voltage	$V_R$	30	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	Pd	250	mW
Junction temperature	$T_j$	175	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-65 to +175	$^\circ\text{C}$

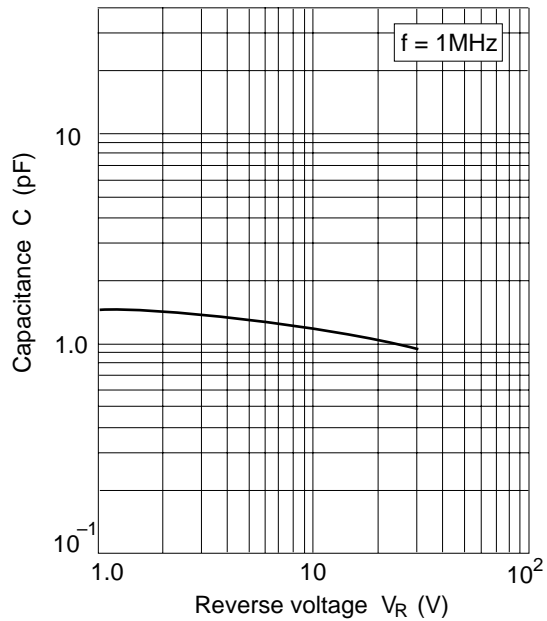
Note: Within 1s forward surge current.

**Electrical Characteristics** ( $T_a = 25^\circ\text{C}$ )

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_F$	—	—	0.8	V	$I_F = 10\text{mA}$
Reverse current	$I_R$	—	—	1.0	$\mu\text{A}$	$V_R = 30\text{V}$
Capacitance	C	—	—	3.0	pF	$V_R = 1\text{V}$ , $f = 1\text{MHz}$
Reverse recovery time	$t_{rr}$	—	—	3.5	ns	$I_F = 10\text{mA}$ , $V_R = 6\text{V}$ , $R_L = 50\Omega$



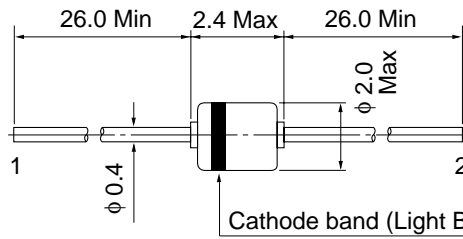
**Fig.1 Forward current Vs. Forward voltage**



**Fig.2 Capacitance Vs. Reverse voltage**

## Package Dimensions

Unit: mm



1 Cathode  
2 Anode

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

## Cautions

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