

# 1SS120

Silicon Epitaxial Planar Diode for High Speed Switching

# HITACHI

ADE-208-167B (Z)

Rev. 2

Aug. 1995

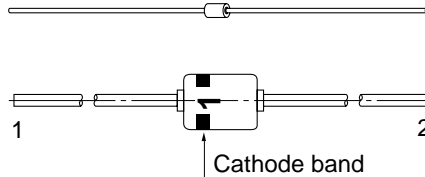
## Features

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

## Ordering Information

Type No.	Cathode band	Mark	Package Code
1SS120	Light Blue	1	MHD

## Outline



1. Cathode
2. Anode

## Absolute Maximum Ratings (Ta = 25°C)

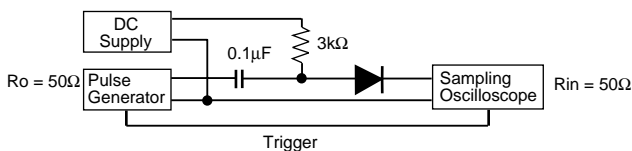
Item	Symbol	Value	Unit
Peak reverse voltage	$V_{RM}$	70	V
Reverse voltage	$V_R$	60	V
Peak forward current	$I_{FM}$	450	mA
Non-Repetitive peak forward surge current	$I_{FSM}^*$	1	A
Average forward current	$I_O$	150	mA
Power dissipation	Pd	250	mW
Junction temperature	Tj	175	°C
Storage temperature	Tstg	-65 to +175	°C

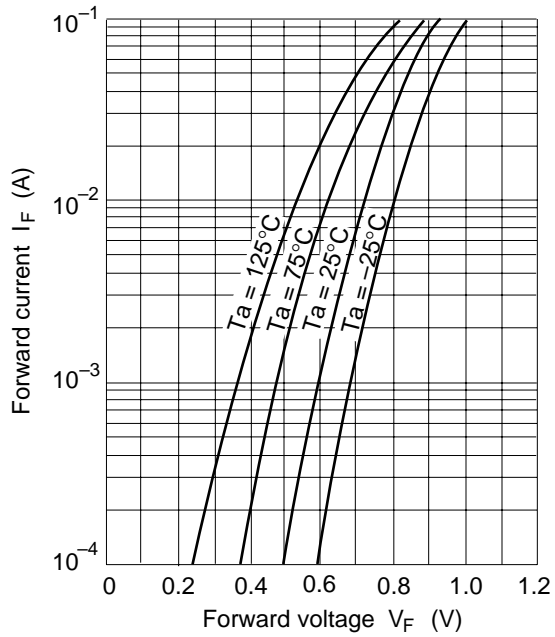
Note: Within 1s forward surge current.

## Electrical Characteristics (Ta = 25°C)

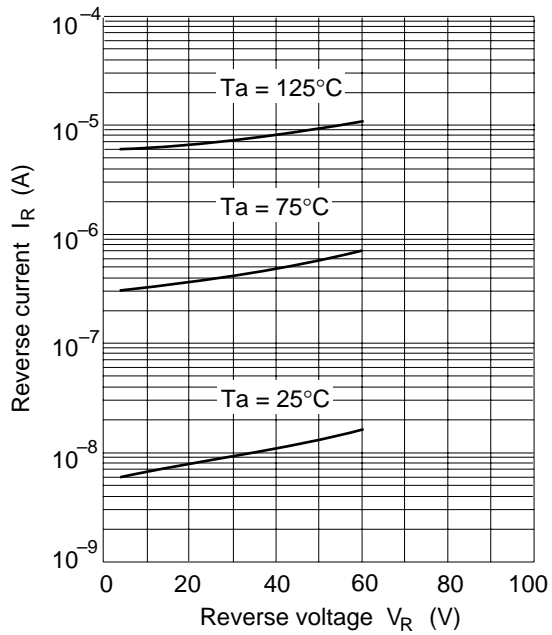
Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_F$	—	—	0.8	V	$I_F = 10\text{mA}$
Reverse current	$I_R$	—	—	0.1	$\mu\text{A}$	$V_R = 60\text{V}$
Capacitance	C	—	—	3.0	pF	$V_R = 1\text{V}, f = 1\text{MHz}$
Reverse recovery time	$t_{rr}^*$	—	—	3.5	ns	$I_F = 10\text{mA}, V_R = 6\text{V}, R_L = 50\Omega$

Note: Reverse recovery time test circuit





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



**Fig.2 Reverse current Vs. Reverse voltage**

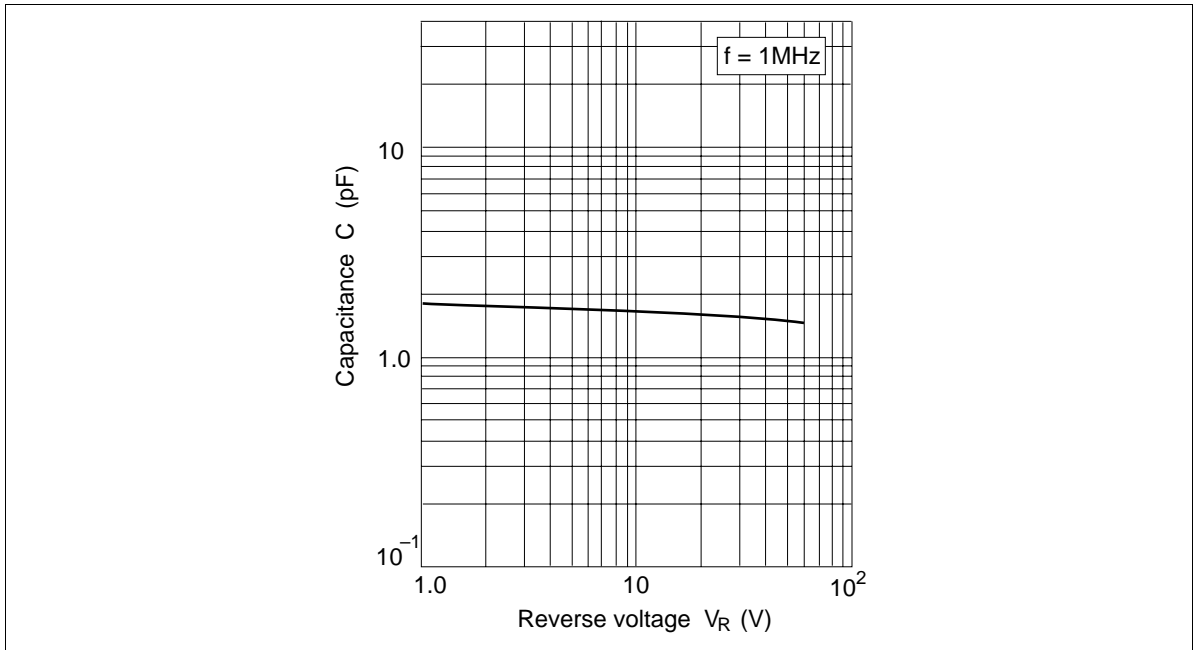
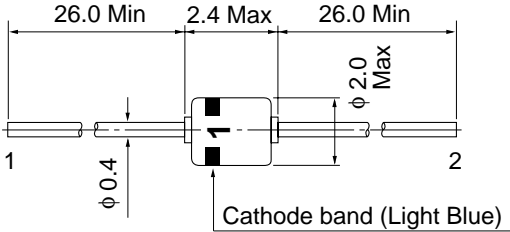


Fig.3 Capacitance Vs. Reverse voltage

Package Dimensions

Unit: mm



- 1 Cathode
- 2 Anode

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

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