

# 1SS119

Silicon Epitaxial Planar Diode for High Speed Switching

# HITACHI

ADE-208-180A (Z)

Rev. 1

Aug. 1995

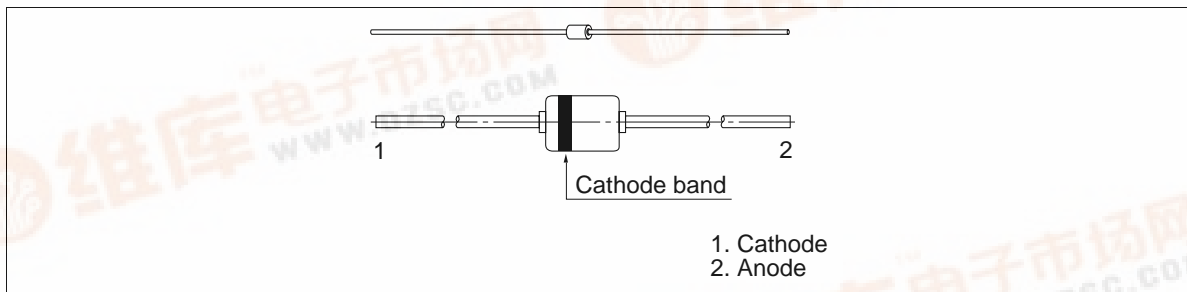
## Features

- 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
1SS119	Light Blue	MHD

## Outline



## 1SS119

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

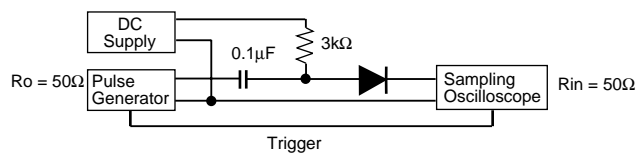
Item	Symbol	Value	Unit
Peak reverse voltage	$V_{RM}$	35	V
Reverse voltage	$V_R$	30	V
Peak forward current	$I_{FM}$	450	mA
Non-Repetitive peak forward surge current	$I_{FSM}^*$	1	A
Average forward current	$I_O$	150	mA
Power dissipation	$P_d$	250	mW
Junction temperature	$T_j$	175	°C
Storage temperature	$T_{stg}$	-65 to +175	°C

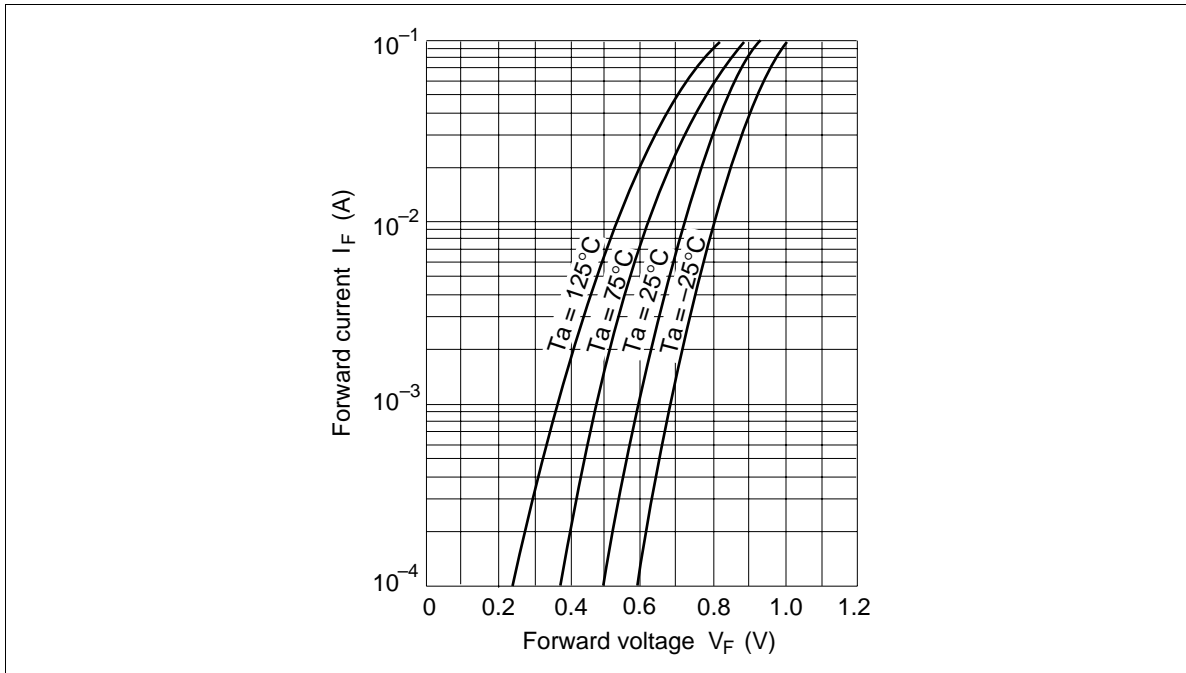
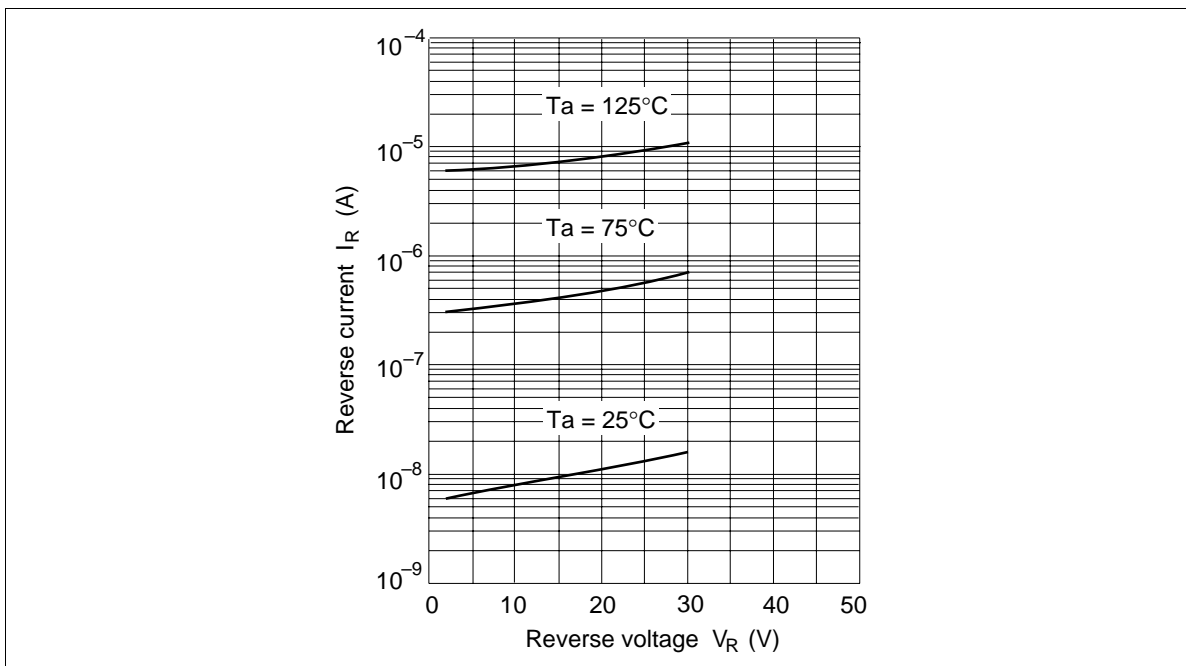
Note: Within 1s forward surge current.

### 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	$\mu\text{A}$	$V_R = 30\text{V}$
Capacitance	$C$	—	—	3.0	pF	$V_R = 1\text{V}, f = 1\text{MHz}$
Reverse recovery time	$t_{rr}^*$	—	—	3.5	ns	$I_F = 10\text{mA}, V_R = 6\text{V}, R_L = 50\Omega$

Note: Reverse recovery time test circuit



**Fig.1 Forward current Vs. Forward voltage****Fig.2 Reverse current Vs. Reverse voltage**

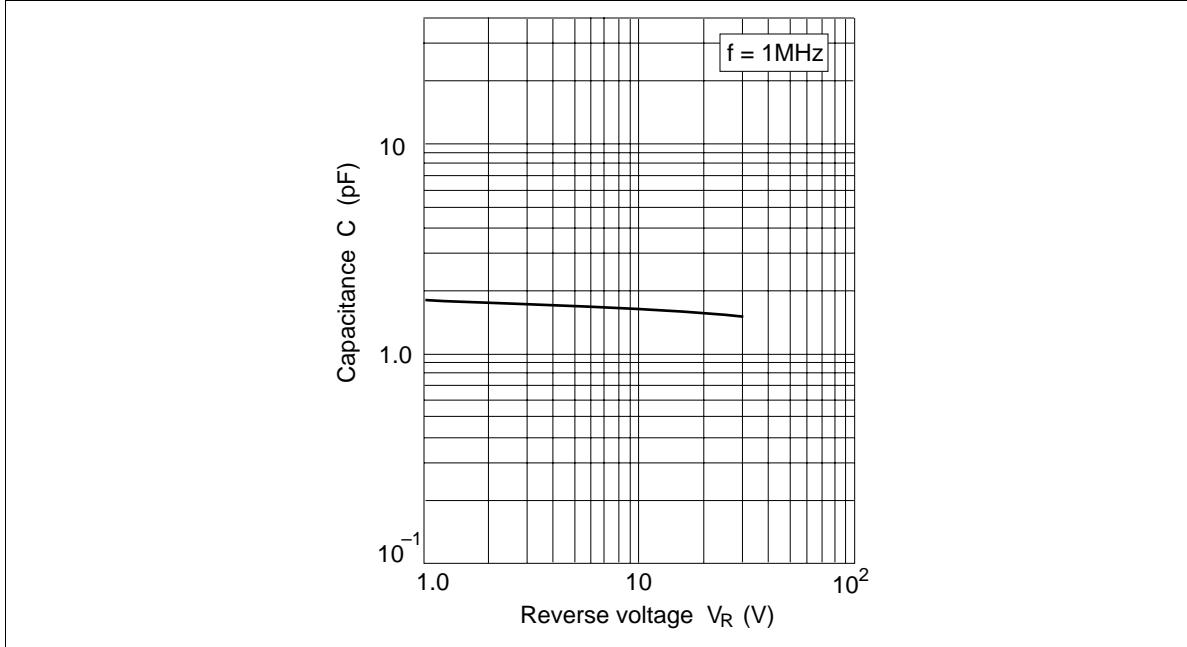
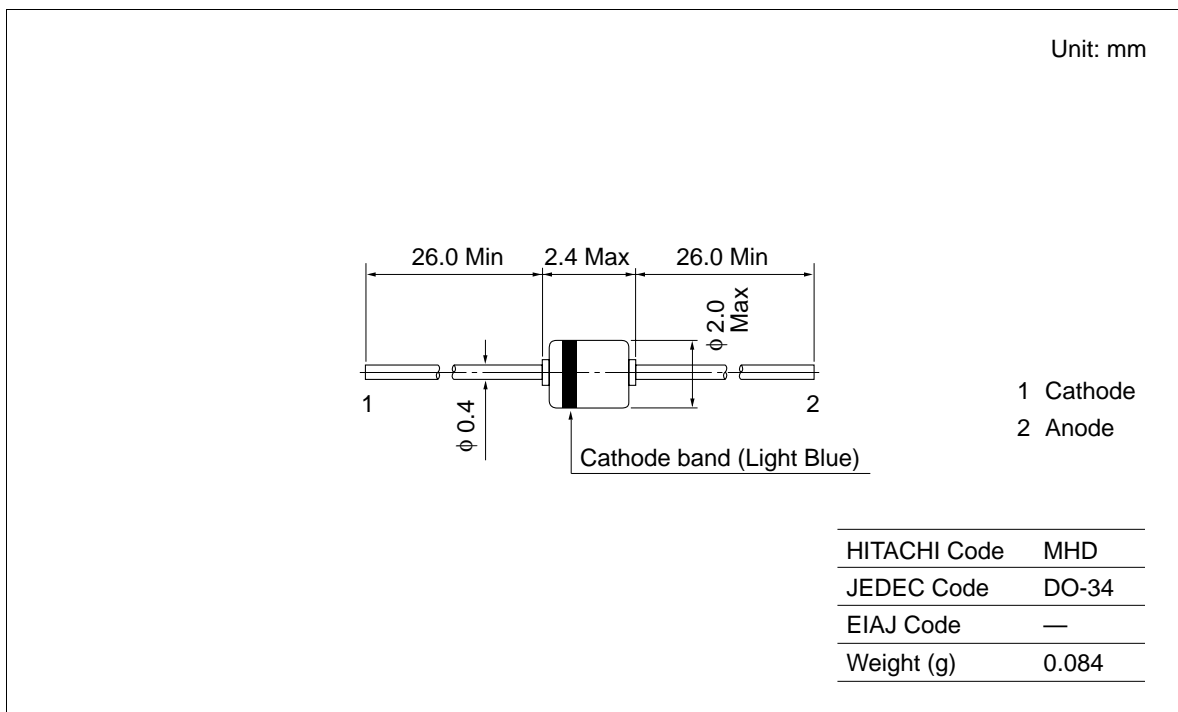


Fig.3 Capacitance Vs. Reverse voltage

**Package Dimensions**

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