

# 1SS119

## Silicon Epitaxial Planar Diode for High Speed Switching

# HITACHI

Rev. 1  
Aug. 1995

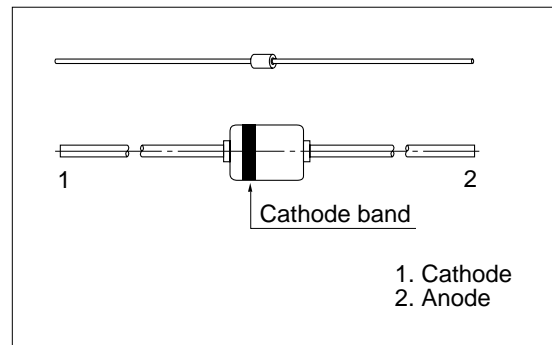
### Features

- 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	Package Code
1SS119	Light Blue	MHD

### Outline



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

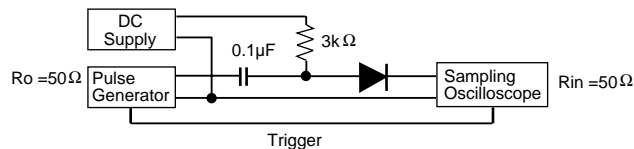
Item	Symbol	Value	Unit
Peak reverse voltage	$V_{RM}$	35	V
Reverse voltage	$V_R$	30	V
Peak forward current	$I_{FM}$	450	mA
Non-Repetitive peak forward surge current	$I_{FSM}^*$	1	A
Average forward current	$I_O$	150	mA
Power dissipation	$P_d$	250	mW
Junction temperature	$T_j$	175	$^\circ\text{C}$
Storage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

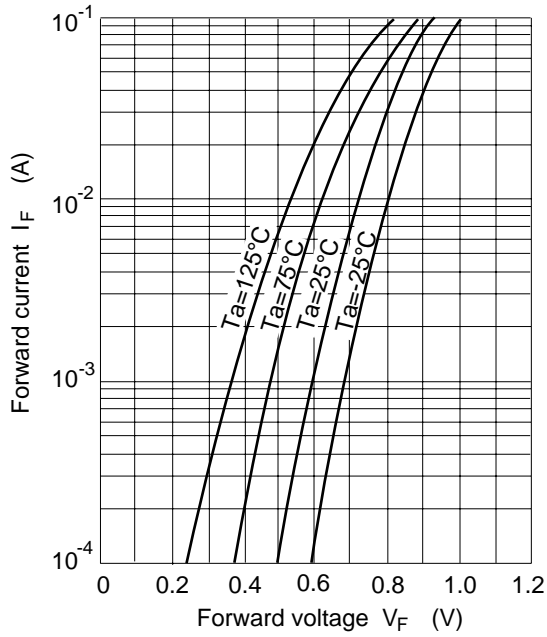
\* Within 1s forward surge current.

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

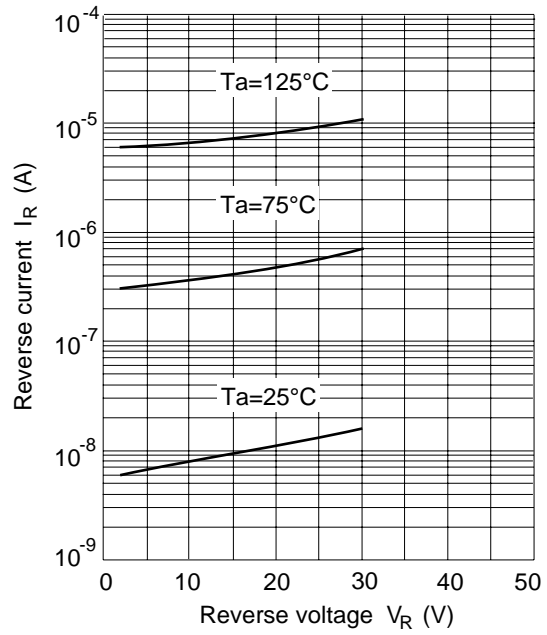
Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_F$	—	—	0.8	V	$I_F = 10\text{ mA}$
Reverse current	$I_R$	—	—	0.1	$\mu\text{A}$	$V_R = 30\text{ V}$
Capacitance	$C$	—	—	3.0	pF	$V_R = 1\text{ V}, f = 1\text{ MHz}$
Reverse recovery time	$t_{rr}^*$	—	—	3.5	ns	$I_F=10\text{mA}, V_R=6\text{V}, R_L=50\Omega$

\* Reverse recovery time test circuit

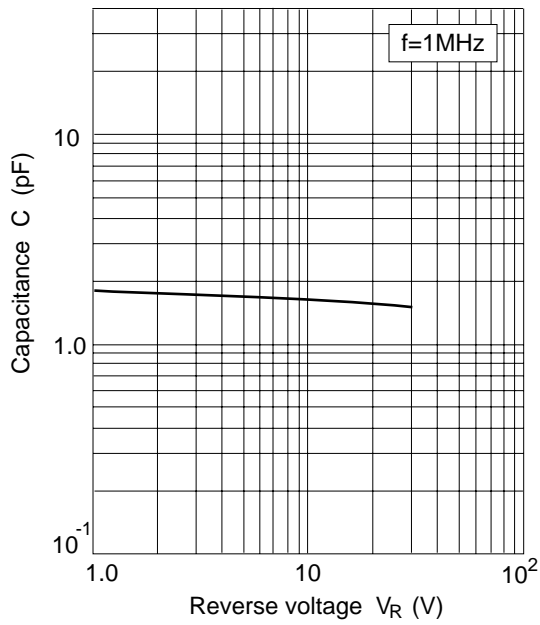




**Fig.1 Forward current Vs. Forward voltage**



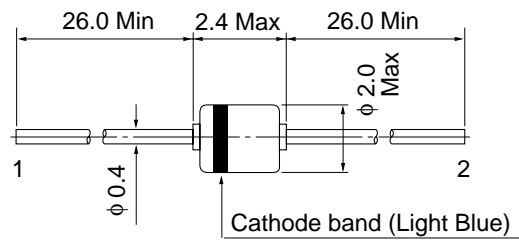
**Fig.2 Reverse current Vs. Reverse voltage**



**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