

1SS119

Silicon Epitaxial Planar Diode for High Speed Switching

HITACHI

Rev. 1
Aug. 1995

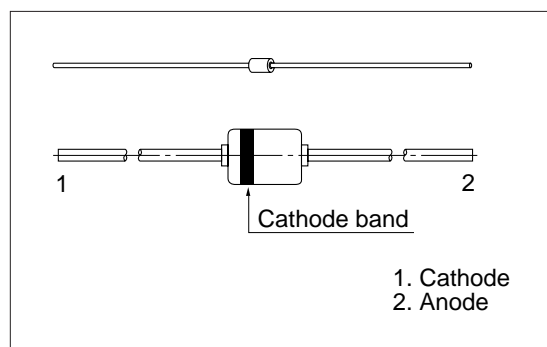
Features

- 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 ($T_a = 25^\circ\text{C}$)

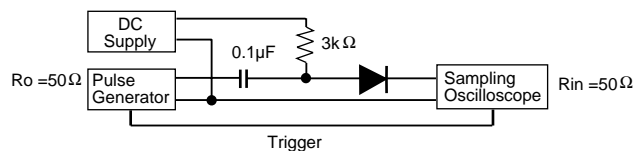
Item	Symbol	Value	Unit
Peak reverse voltage	V_{RM}	35	V
Reverse voltage	V_R	30	V
Peak forward current	I_{FM}	450	mA
Non-Repetitive peak forward surge current	I_{FSM}^*	1	A
Average forward current	I_O	150	mA
Power dissipation	P_d	250	mW
Junction temperature	T_j	175	$^\circ\text{C}$
Storage temperature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



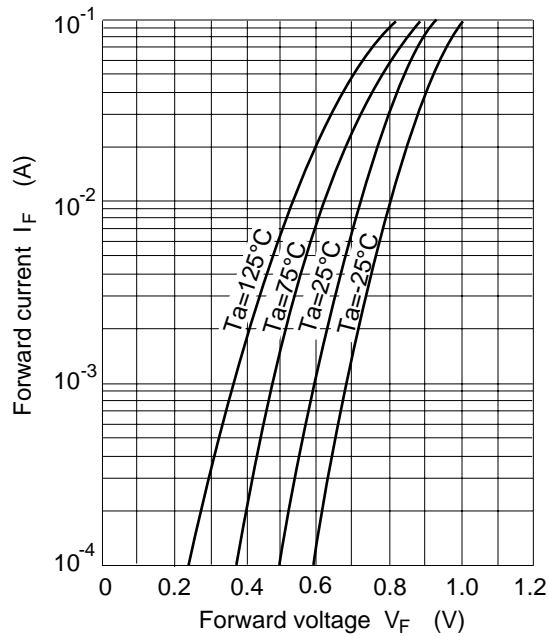


Fig.1 Forward current Vs. Forward voltage

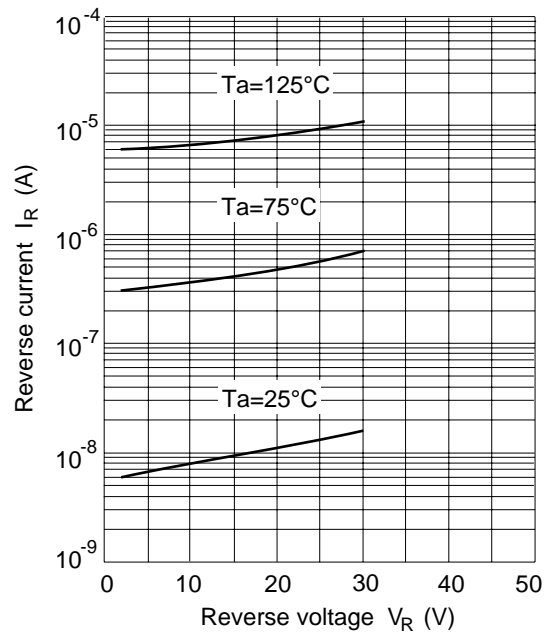


Fig.2 Reverse current Vs. Reverse voltage

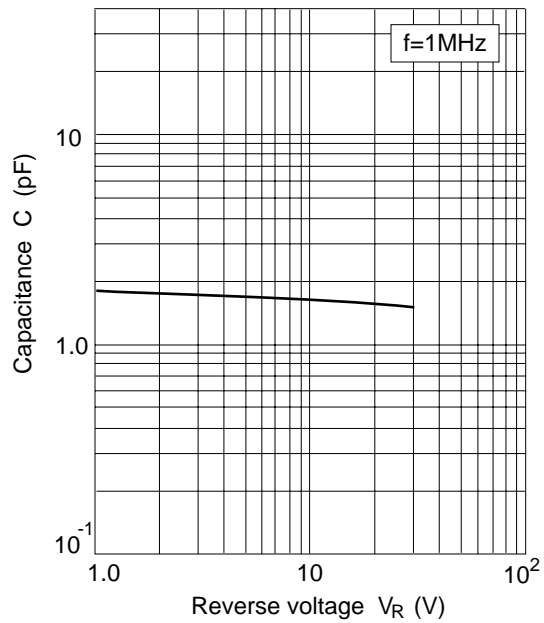
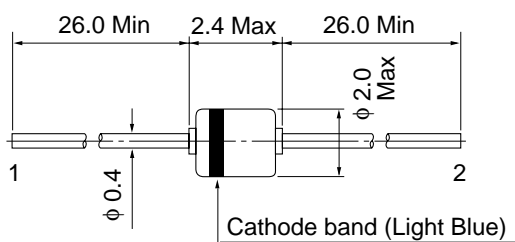


Fig.3 Capacitance Vs. Reverse voltage

Package Dimensions

Unit: mm



- 1 Cathode
2 Anode

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