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# 1SS119

Silicon Epitaxial Planar Diode for High Speed Switching

# HITACHI

ADE-208-180B (Z)

Rev.2  
Sep. 2000

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## Features

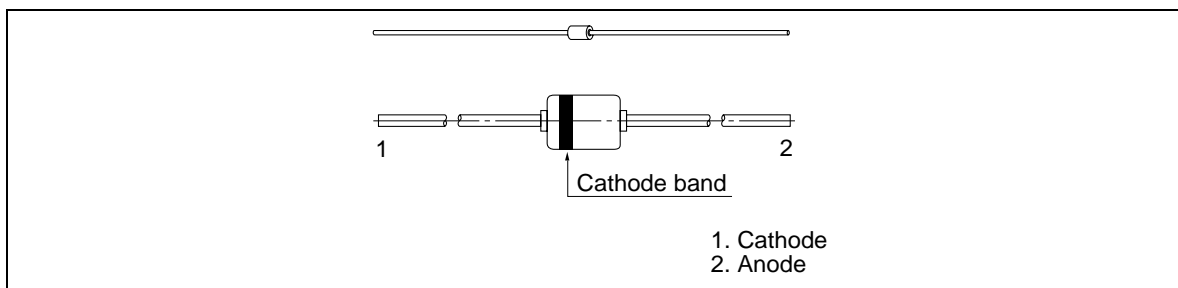
- Low capacitance. ( $C = 3.0 \text{ pF max}$ )
- Short reverse recovery time. ( $t_r = 3.5 \text{ ns max}$ )
- Small glass package (MHD) enables easy mounting and high reliability.

## Ordering Information

Type No.	Cathode band	Package Code
1SS119	Light Blue	MHD

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## Outline



# 1SS119

## 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
Average rectified current	$I_O$	150	mA
Peak forward current	$I_{FM}$	450	mA
Non-Repetitive peak forward surge current	$I_{FSM}^*$	1	A
Power dissipation	Pd	250	mW
Junction temperature	$T_j$	175	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-65 to +175	$^\circ\text{C}$

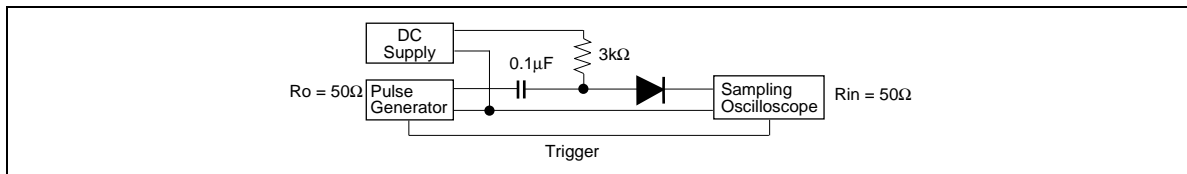
Note: Within 1s forward surge current.

## 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	$I_R$	—	—	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



Main Characteristic

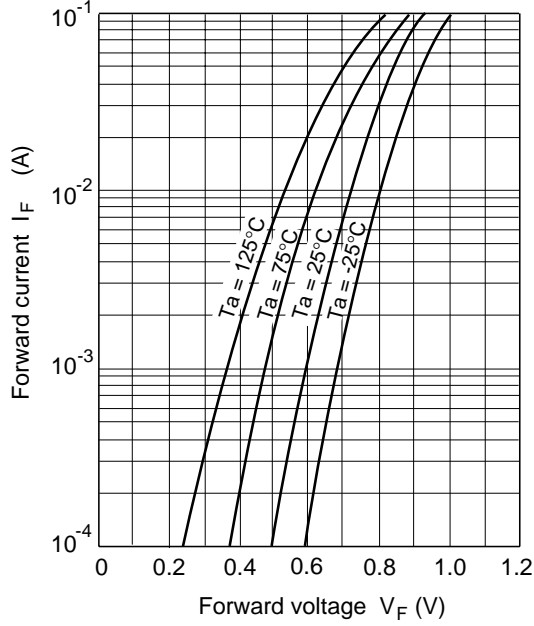


Fig.1 Forward current Vs. Forward voltage

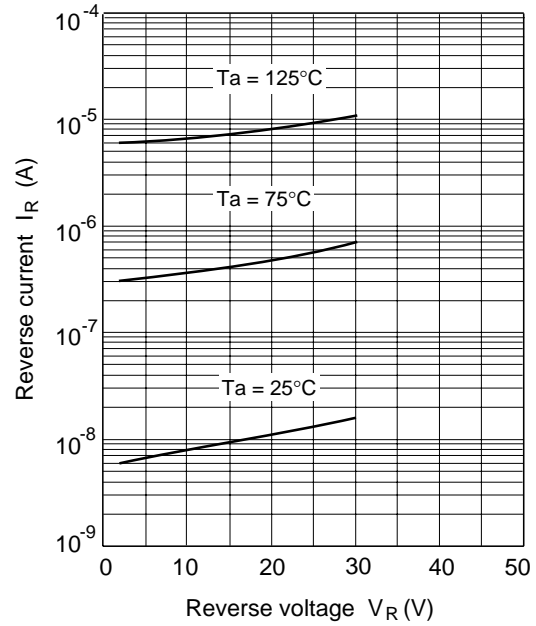


Fig.2 Reverse current Vs. Reverse voltage

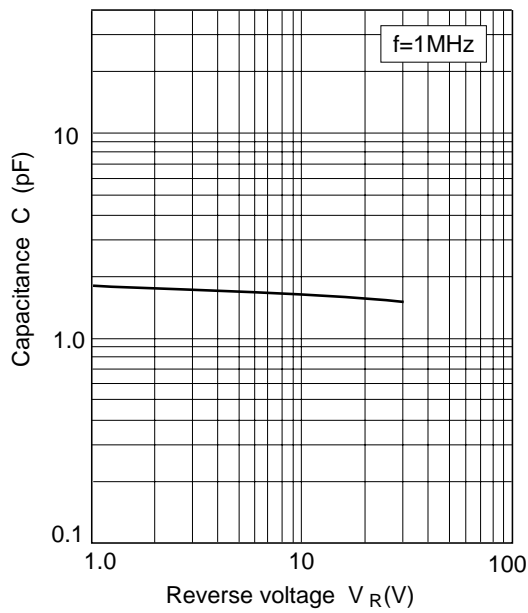
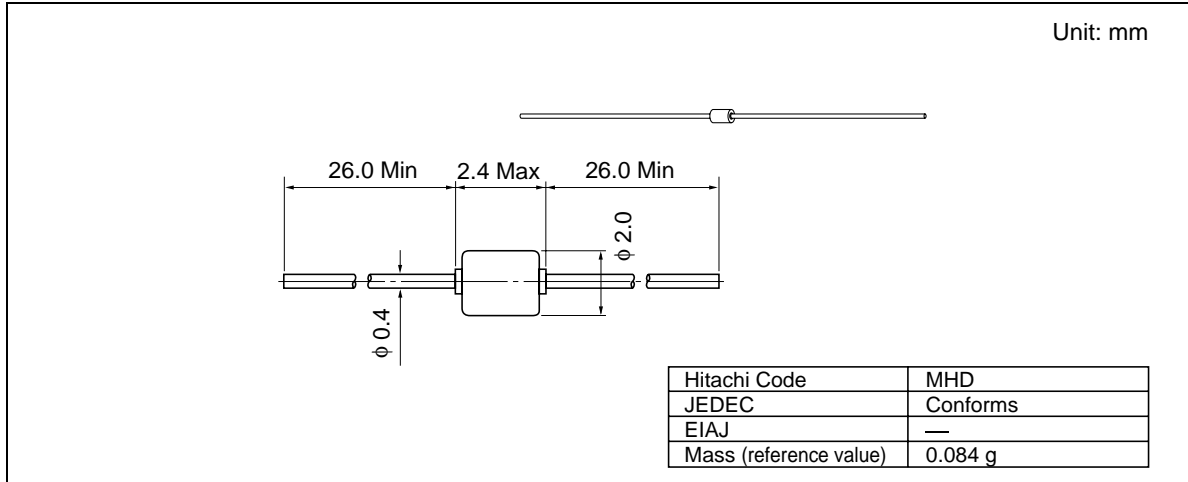


Fig.3 Capacitance Vs. Reverse voltage

# 1SS119

## Package Dimensions



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