

# 1SS119

## Silicon Epitaxial Planar Diode for High Speed Switching

REJ03G0564-0300  
(Previous: ADE-208-180B)  
Rev.3.00  
Mar 23, 2005

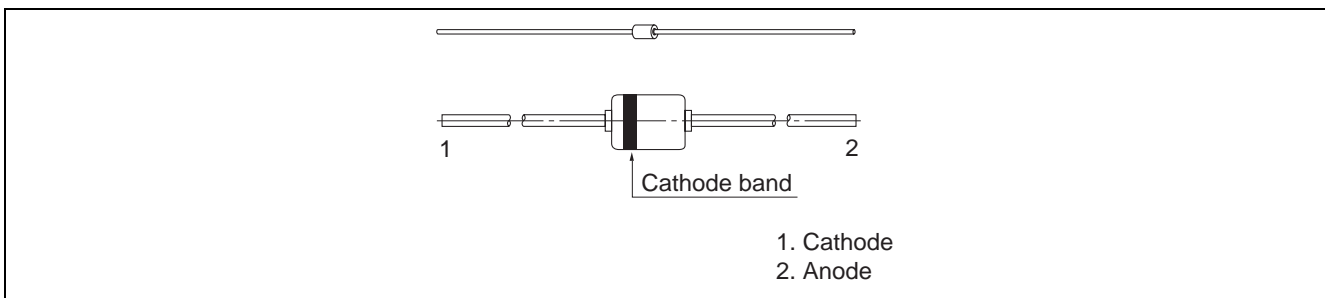
### Features

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

### Ordering Information

Type No.	Cathode band	Package Name	Package Code (Previous Code)
1SS119	Light Blue	MHD	GRZZ0002ZC-A (MHD)

### Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°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	$P_d$	250	mW
Junction temperature	$T_j$	175	°C
Storage temperature	$T_{stg}$	-65 to +175	°C

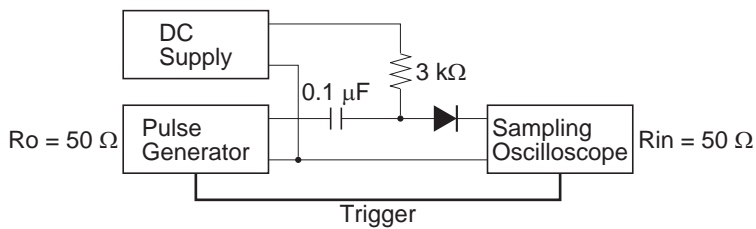
Note: \* Within 1s forward surge current.

## 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



Main Characteristic

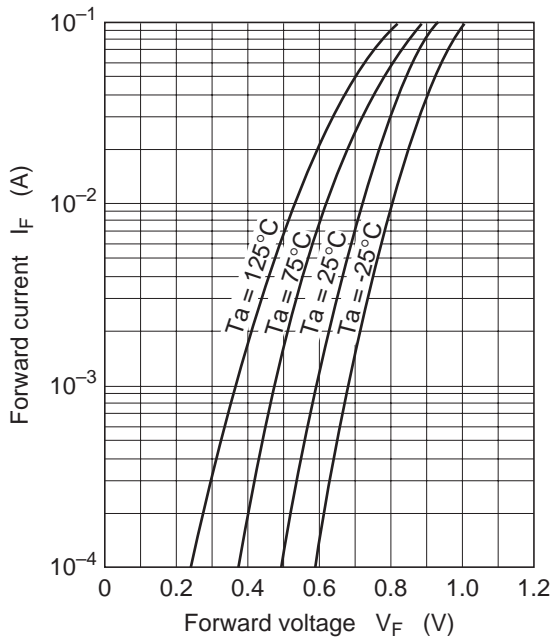


Fig.1 Forward current vs. Forward voltage

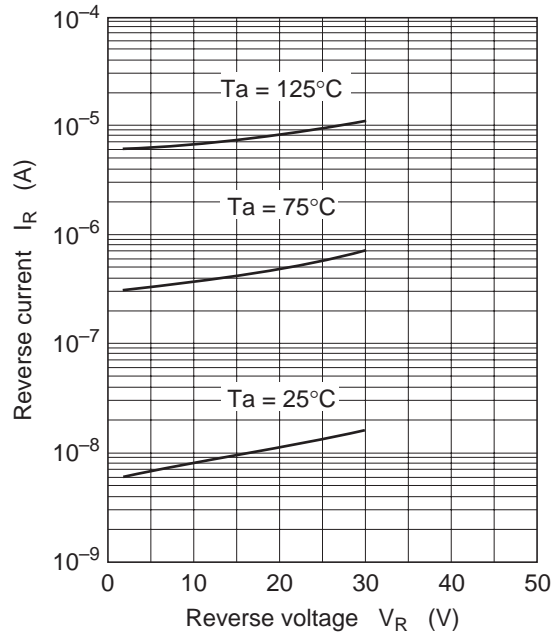


Fig.2 Reverse current vs. Reverse voltage

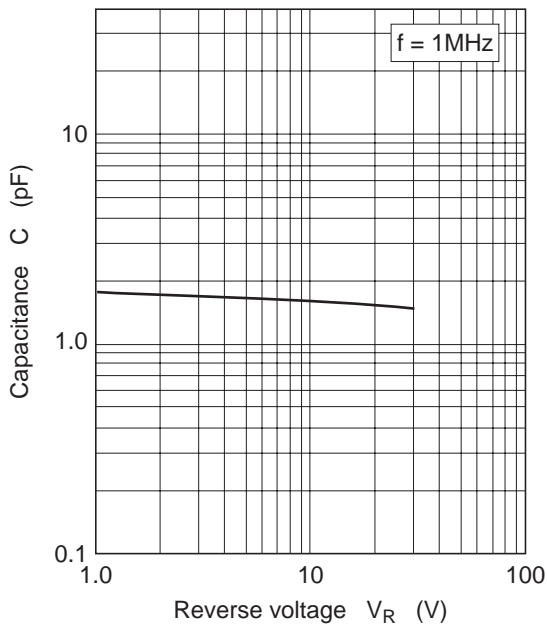


Fig.3 Capacitance vs. Reverse voltage

## Package Dimensions

JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
—	GRZZ0002ZC-A	MHD / MHDV	0.084g

The diagram shows a side view of the package with a central rectangular body. Dimension L is shown for the two end leads. Dimension E is the length of the central body. Dimension phi b is the diameter of the left lead, and dimension phi D is the diameter of the right lead.

Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
$\phi b$	-	0.4	-
$\phi D$	-	2.0	-
E	-	-	2.4
L	26.0	-	-

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