

# 1SS81

## Silicon Epitaxial Planar Diode for High Voltage Switching

REJ03G0561-0300  
(Previous: ADE-208-148B)  
Rev.3.00  
Mar 22, 2005

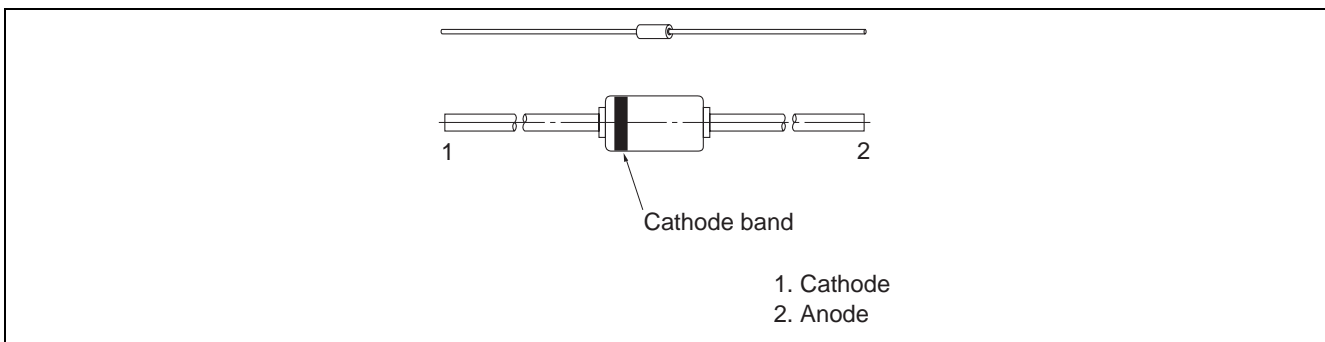
### Features

- High reverse voltage. ( $V_R = 150\text{ V}$ )
- High reliability with glass seal.

### Ordering Information

Type No.	Cathode band	Package Name	Package Code (Previous Code)
1SS81	Verdure	DO-35	GRZZ0002ZB-A (DO-35)

### Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	$V_{RM}^{*1}$	200	V
Reverse voltage	$V_R$	150	V
Average rectified current	$I_O$	200	mA
Peak forward current	$I_{FM}$	625	mA
Non-Repetitive peak forward surge current	$I_{FSM}^{*2}$	1	A
Power dissipation	$P_d$	400	mW
Junction temperature	$T_j$	175	°C
Storage temperature	$T_{stg}$	-65 to +175	°C

Notes: 1. Reverse voltage in excess of peak reverse voltage may deteriorate electrical characteristic.  
 2. Within 1s forward surge current.

## Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	$I_{R1}$	—	—	200	nA	$V_R = 150\text{ V}$
	$I_{R2}$	—	—	100	μA	$V_R = 200\text{ V}$
Forward voltage	$V_F$	—	—	1.0	V	$I_F = 100\text{ mA}$
Capacitance	C	—	1.5	—	pF	$V_R = 0\text{ V}, f = 1\text{ MHz}$
Reverse recovery time	$t_{rr}$	—	—	100	ns	$I_F = I_R = 30\text{ mA}, I_{rr} = 3\text{ mA}, R_L = 100\ \Omega$

Main Characteristic

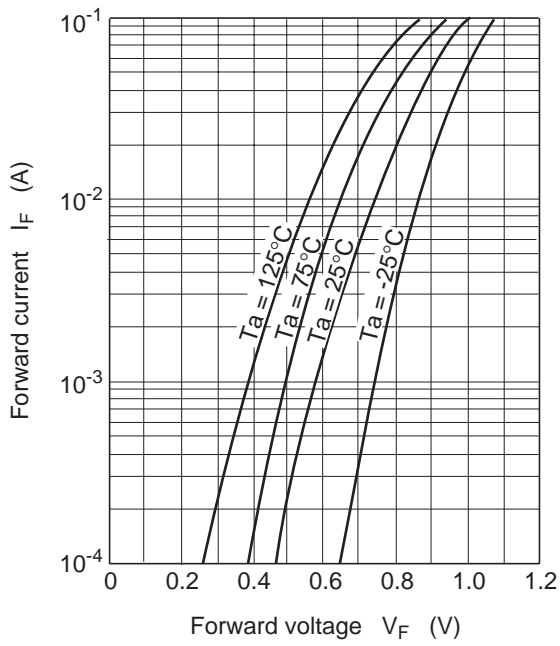


Fig.1 Forward current vs. Forward voltage

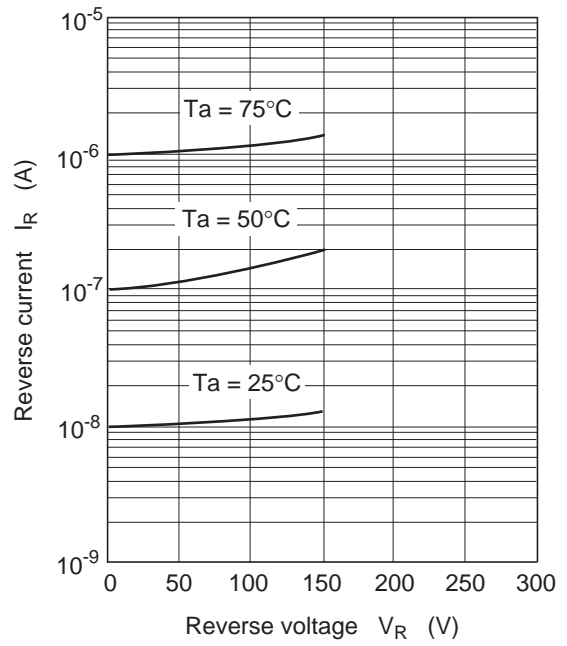


Fig.2 Reverse current vs. Reverse voltage

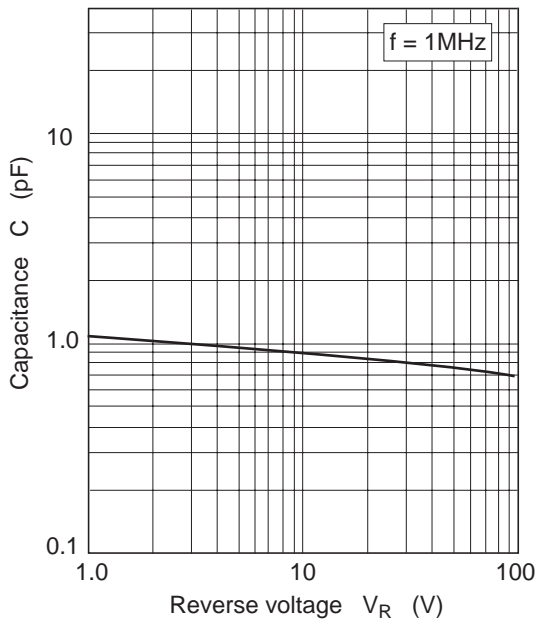
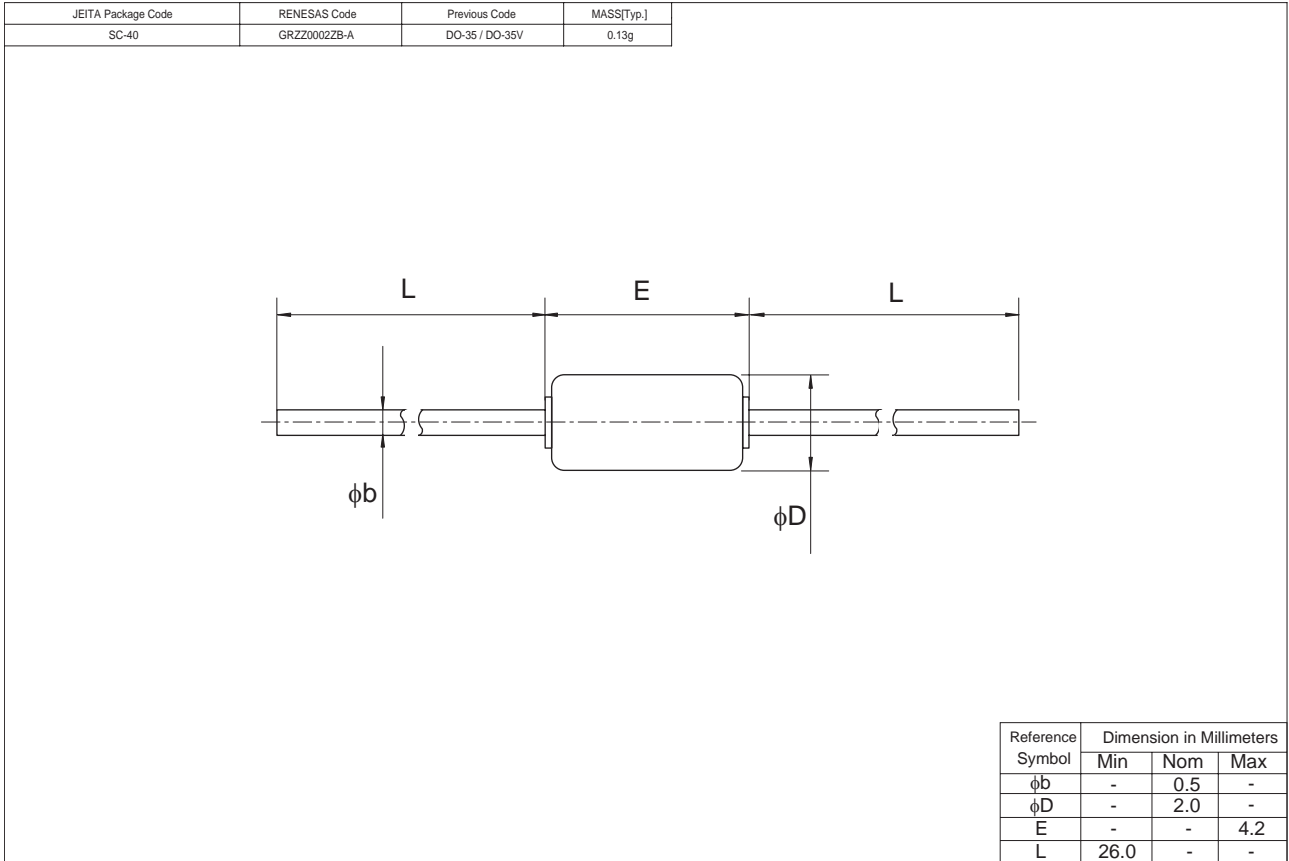


Fig.3 Capacitance vs. Reverse voltage

## Package Dimensions



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