

# 1SS165

Silicon Schottky Barrier Diode for CATV Balanced Mixer

## HITACHI

ADE-208-397 (Z)

Rev. 0

Oct. 1995

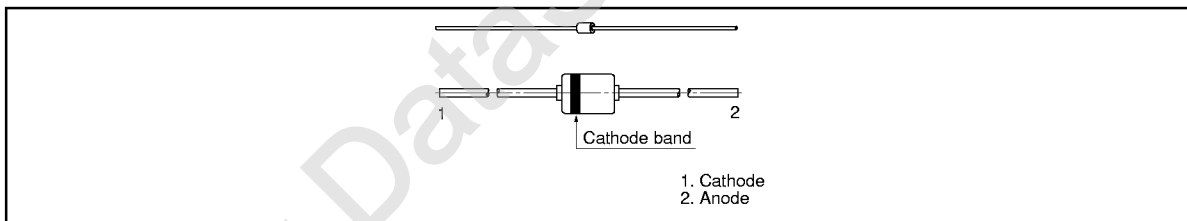
### Features

- Low capacitance. ( $C = 1.0\text{pF}$  max)
- Small glass package (MHD) enables easy mounting and high reliability.

### Ordering Information

Type No.	Cathode band	Package Code
1SS165	Green	MHD

### Outline



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

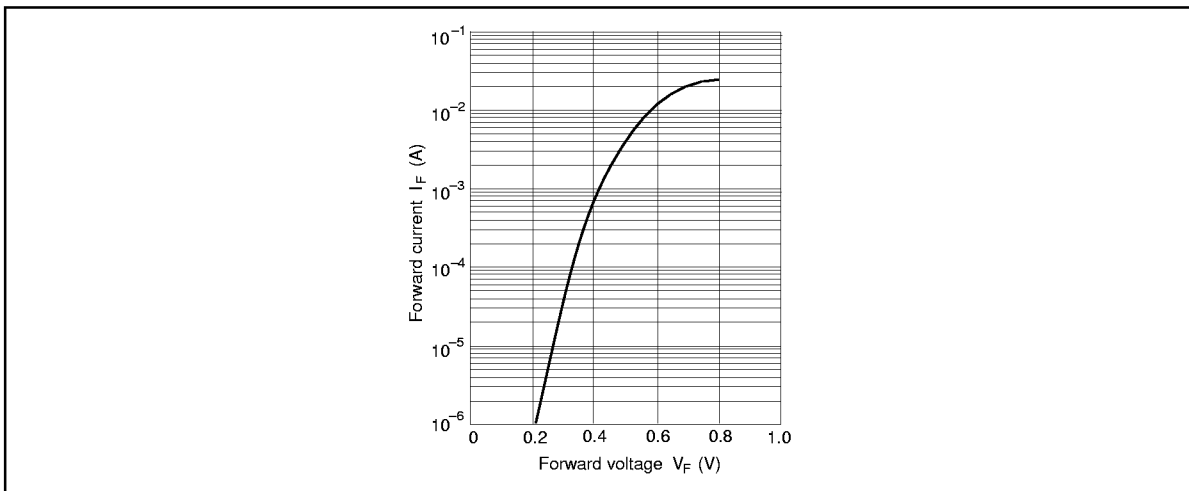
Item	Symbol	Value	Unit
Reverse voltage	$V_R$	10	V
Average forward current	$I_o$	15	mA
Peak forward current	$I_{FM}$	35	mA
Power dissipation	$P_d$	150	mW
Junction temperature	$T_j$	100	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +100	$^\circ\text{C}$

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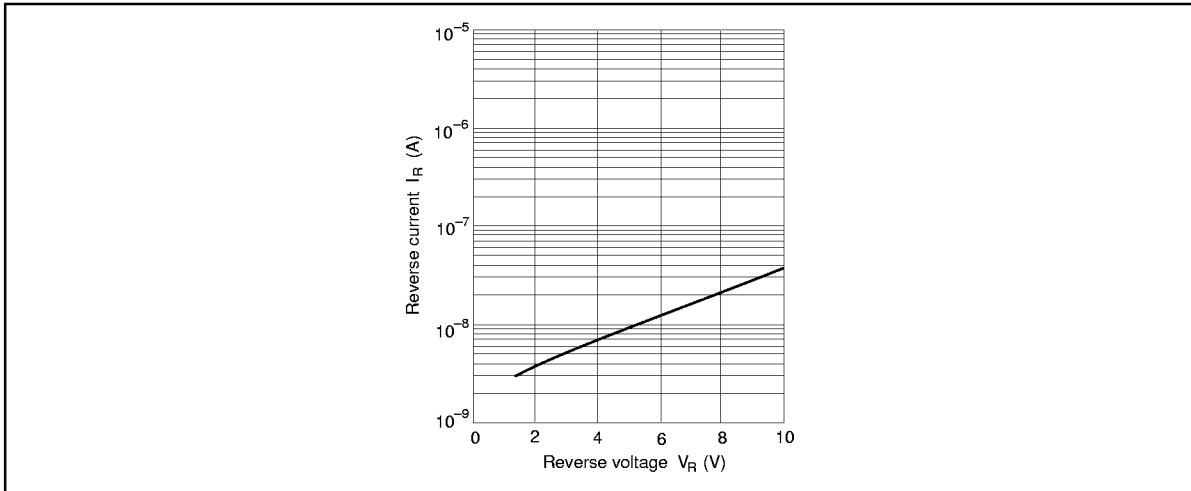
## Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_{F1}$	365	—	430	mV	$I_F = 1\text{mA}$
	$V_{F2}$	520	—	600		$I_F = 10\text{mA}$
Reverse current	$I_{R1}$	—	—	0.2	$\mu\text{A}$	$V_R = 2\text{V}$
	$I_{R2}$	—	—	10		$V_R = 10\text{V}$
Capacitance	C	—	—	1.0	pF	$V_R = 0\text{V}$ , $f = 1\text{MHz}$
Capacitance deviation	$\Delta C$	—	—	0.1	pF	$V_R = 0\text{V}$ , $f = 1\text{MHz}$
Forward voltage deviation	$\Delta V_{F1}$	—	—	10	mV	$I_F = 2.5\text{mA}$
	$\Delta V_{F2}$	—	—	10		$I_F = 10\text{mA}$
ESD-Capability	—	30	—	—	V	*1C = 200pF, Both forward and reverse direction 1 pulse.

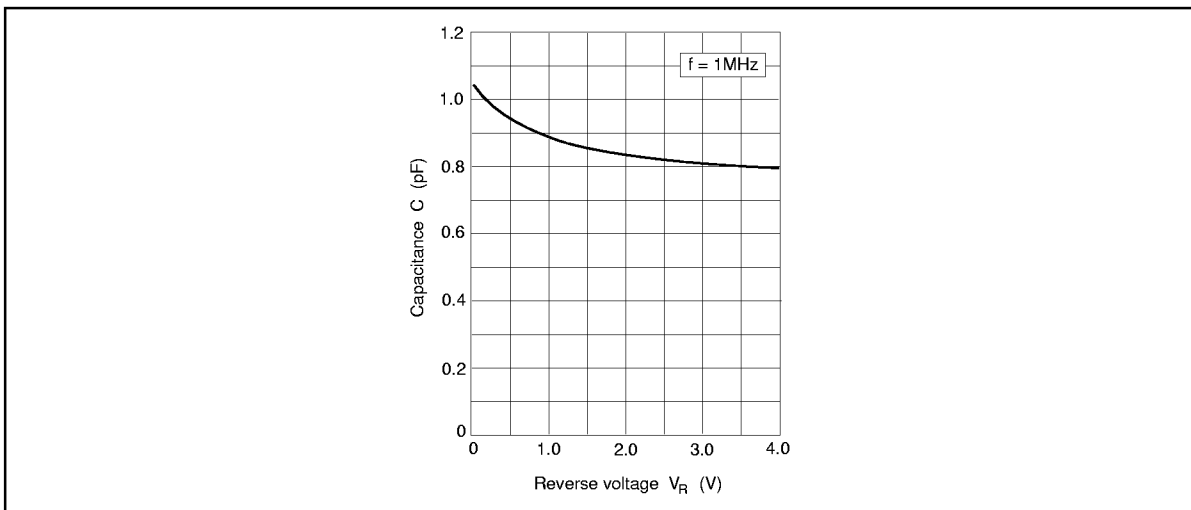
- Notes: 1. Failure criterion;  $I_r \geq 50\mu\text{A}$   
 2. Each group shall unify a multiple of 4 diodes



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



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



**Fig.3 Capacitance Vs. Reverse voltage**

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## Package Dimensions

