
1SS165

Silicon Schottky Barrier Diode for CATV Balanced Mixer

HITACHI

ADE-208-397 (Z)

Rev. 0

Oct. 1995

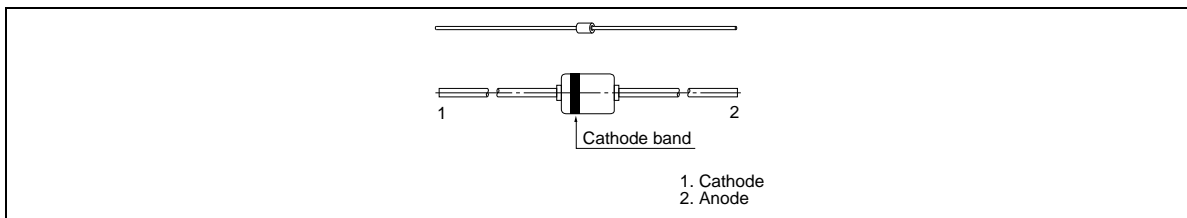
Features

- 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	μA	$V_R = 2\text{V}$
	I_{R2}	—	—	10		$V_R = 10\text{V}$
Capacitance	C	—	—	1.0	pF	$V_R = 0\text{V}$, $f = 1\text{MHz}$
Capacitance deviation	ΔC	—	—	0.1	pF	$V_R = 0\text{V}$, $f = 1\text{MHz}$
Forward voltage deviation	ΔV_{F1}	—	—	10	mV	$I_F = 2.5\text{mA}$
	ΔV_{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

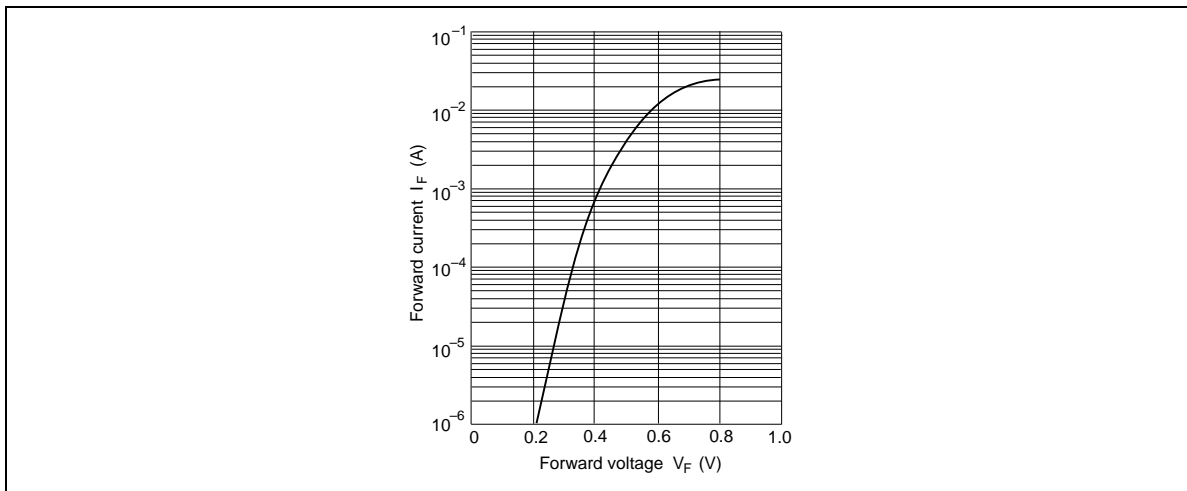


Fig.1 Forward current Vs. Forward voltage

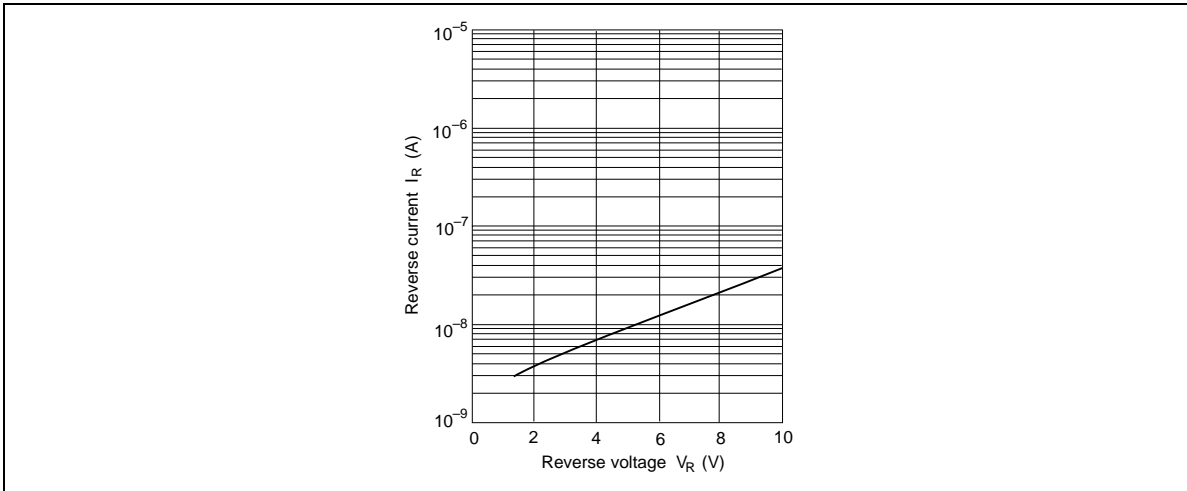


Fig.2 Reverse current Vs. Reverse voltage

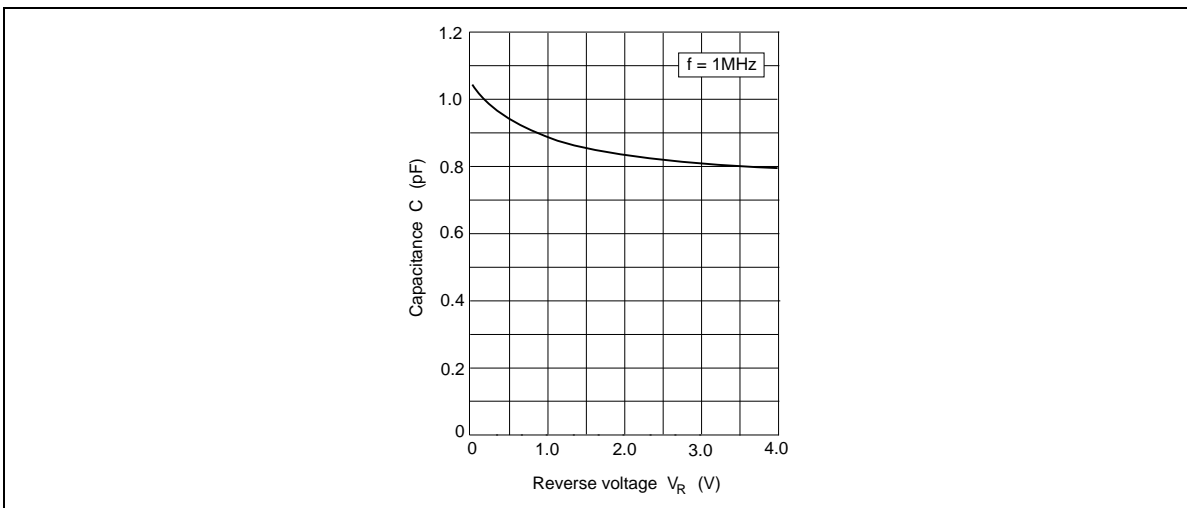


Fig.3 Capacitance Vs. Reverse voltage

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Package Dimensions

