

1SS165

Silicon Schottky Barrier Diode for CATV Balanced Mixer

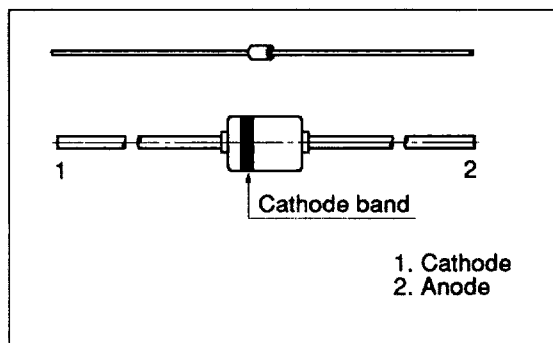
Features

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

Ordering Information

TType No.	Cathode band	Package Code
1SS165	Green	MHD

Outline



Absolute Maximum Ratings (Ta = 25°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	°C
Storage temperature	T_{stg}	-55 to +100	°C

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_{F1}	365	—	435	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	*C=200pF, Both forward and reverse direction 1 pulse.

* Failure criterion ; $I_R \geq 50 \mu\text{A}$

** Each group shall unify a multiple of 4 diodes

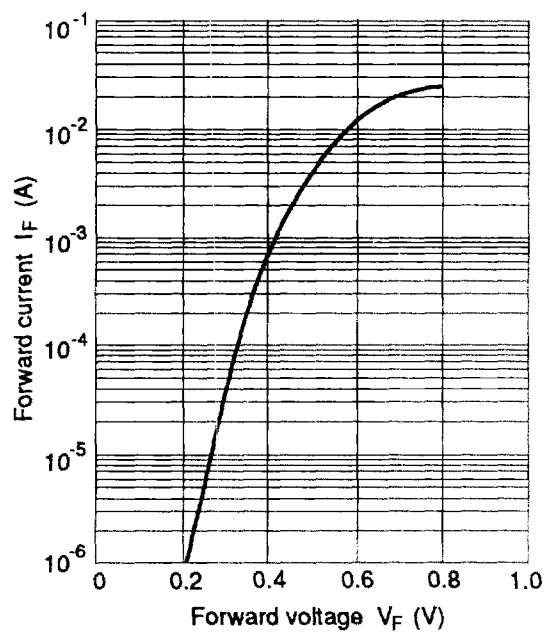


Fig.1 Forward current Vs. Forward voltage

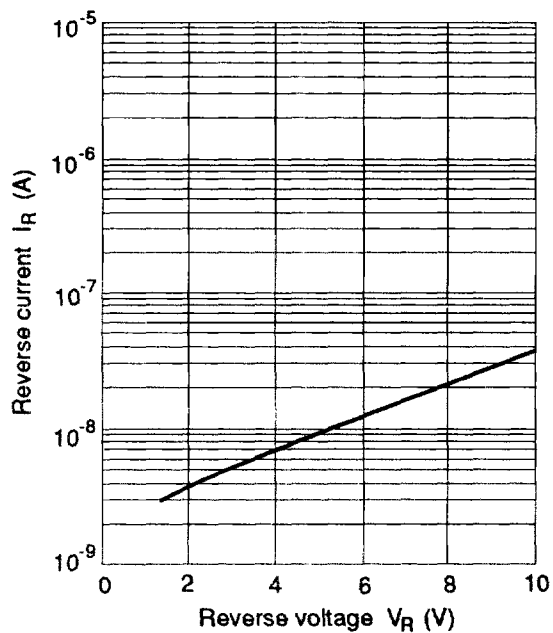


Fig.2 Reverse current Vs. Reverse voltage

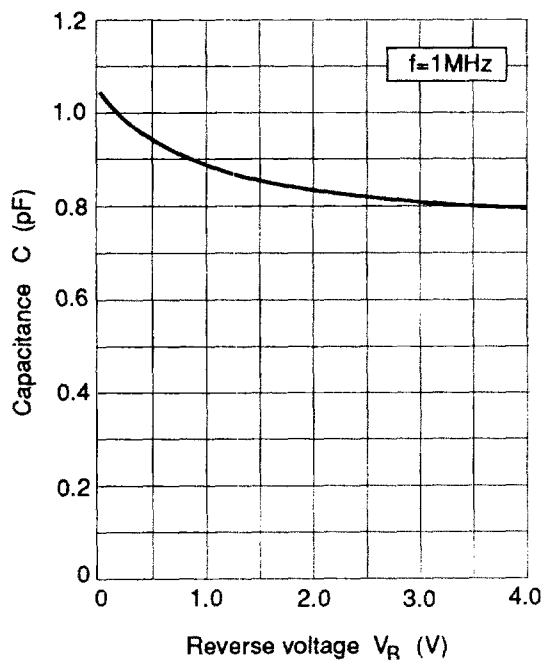


Fig.3 Capacitance Vs. Reverse voltage