NEC
ELECTRON DEVICE

MIXER DIODE
1SS101

UHF MIXER, SWITCHING
SILICON EPITAXIAL SCHOTTKY BARRIER DIODE

DESCRIPTION AND APPLICATIONS

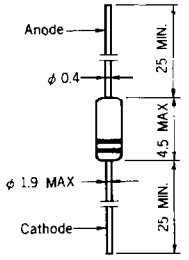
The 1SS101 is silicon epitaxial schottky barrier diode, especially designed for mixing, switching, log or A-D converting, frequency discriminating, sampling and wave shaping.

FEATURES

- Small size glass package. (DO-35 TYPE)
- High breakdown voltage. V_R = 70 V MIN. at I_R = 10 μA
- High turn-on voltage. V_F = 0.41 V MAX. at I_F = 1 mA
- Low cost.

PACKAGE DIMENSIONS
in millimeters

JEDEC : DO-35



Color Code (from cathode)
Red, Blue

ABSOLUTE MAXIMUM RATINGS (Ta = 25 °C)

Reverse Voltage	V_R	70	V
Forward Current	I_F	15	mA
DC Power Dissipation	P_d	150	mW
Junction Temperature	T_j	+175	°C
Storage Temperature	T_{stg}	-65 to +175	°C
Reverse Burnout *	B_O	2.0	erg

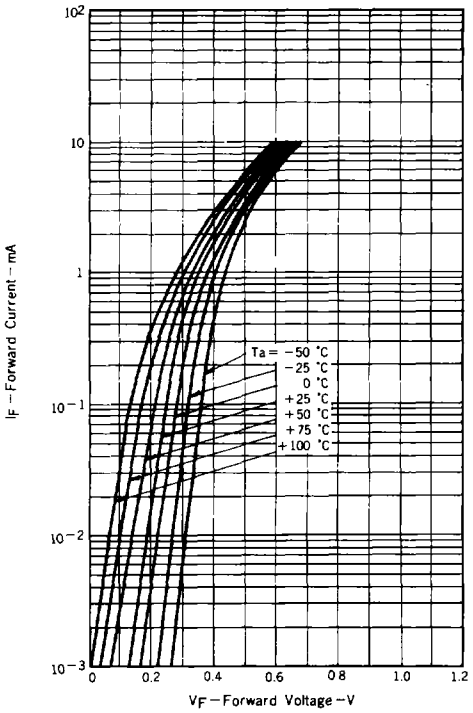
Note * : Capacitor charge method C(charge) = 25 pF

ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

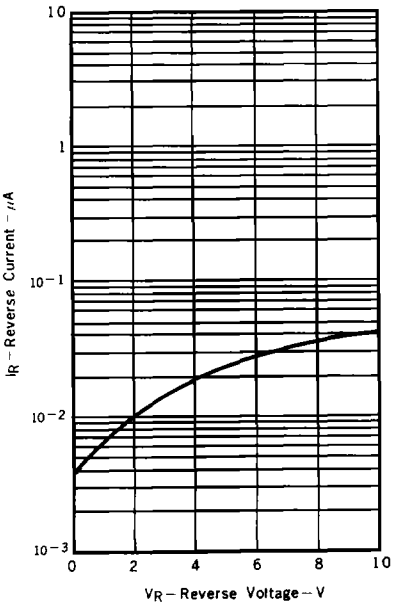
CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Reverse Voltage	V_R	70			V	I_R = 10 μA
Reverse Current	I_R			200	nA	V_R = 50 V
Forward Voltage	V_F			0.41	V	I_F = 1.0 mA
Forward Current	I_F	15			mA	V_F = 1.0 V
Capacitance	C_t			2.0	pF	V_R = 0, f = 1.0 MHz

TYPICAL CHARACTERISTICS (Ta = 25 °C)

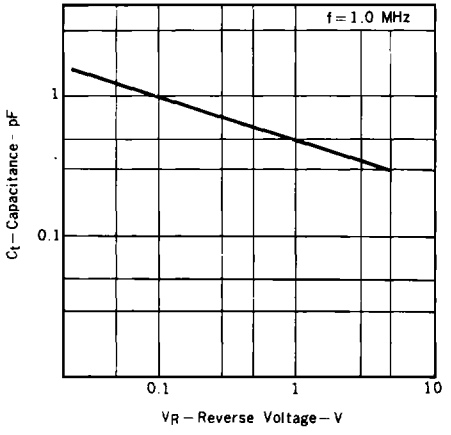
FORWARD CURRENT vs.
FORWARD VOLTAGE



REVERSE CURRENT vs.
REVERSE VOLTAGE



CAPACITANCE vs.
REVERSE VOLTAGE



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