

SILICON DETECTOR & MIXER DIODE

1SS99

DESCRIPTION The 1SS99 is silicon epitaxial schottky barrier diode, especially designed for mixing, log or A-D converting, video detecting, frequency discriminating, sampling and wave shaping.

FEATURES

- Small size glass package. (DO-35 TYPE)
- Low noise figure.
- Low turn-on voltage.
 $V_F = 0.23 \text{ V MAX. at } I_F = 1 \text{ mA}$
- Low capacitance.
 $C_i = 0.9 \text{ pF MAX. at } 1 \text{ MHz, } V_R = 0.2 \text{ V}$
- Low cost.

ABSOLUTE MAXIMUM RATINGS

Maximum Temperatures

Junction Temperature	T_j	175	°C
Storage Temperature	T_{stg}	-65 to +175	°C

Maximum Power Dissipation ($T_a = 25^\circ\text{C}$)

Power Dissipation	P_T	150	mW
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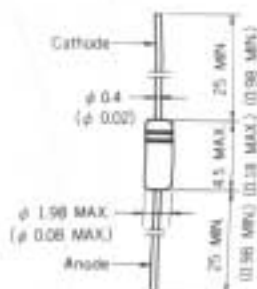
Maximum Voltage and Current ($T_a = 25^\circ\text{C}$)

Peak Reverse Voltage	V_{RM}	5.0	V
Forward Current	I_F	30	mA
Reverse Burnout*	B_O	2.0	erg

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

PACKAGE DIMENSIONS

in millimeters (inches)



Color Code (from cathode)
Black, Blue

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
I_R	Reverse Current			25	μA	$V_R = 0.5 \text{ V}$
V_F	Forward Voltage			0.23	V	$I_F = 1.0 \text{ mA}$
I_F	Forward Current	30			mA	$V_F = 0.5 \text{ V}$
C_i	Capacitance			0.9	pF	$V_R = 0.2 \text{ V, } f = 1 \text{ MHz}$

TYPICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)