

# SILICON DETECTOR & MIXER DIODE

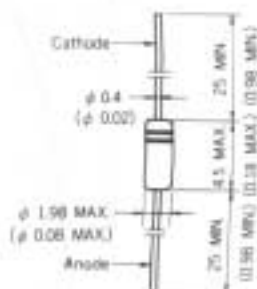
## 1SS99

**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.  
     $V_F=0.23$  V MAX. at  $I_F=1$  mA
- Low capacitance.  
     $C_1=0.9$  pF MAX. at 1 MHz,  $V_R=0.2$  V
- Low cost.

**PACKAGE DIMENSIONS**  
in millimeters (inches)



Color Code (from cathode)  
Black, Blue

**ABSOLUTE MAXIMUM RATINGS**

Maximum Temperatures

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

Maximum Power Dissipation ( $T_a=25$  °C)

Power Dissipation	$P_T$	150	mW
-------------------	-------	-----	----

Maximum Voltage and Current ( $T_a=25$  °C)

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

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

**ELECTRICAL CHARACTERISTICS ( $T_a = 25$  °C)**

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
$I_R$	Reverse Current			25	$\mu$ A	$V_R=0.5$ V
$V_F$	Forward Voltage			0.23	V	$I_F=1.0$ mA
$I_F$	Forward Current	30			mA	$V_F=0.5$ V
$C_1$	Capacitance			0.9	pF	$V_R=0.2$ V, $f=1$ MHz

TYPICAL CHARACTERISTICS (Ta=25 °C)

