

The LD-590 is a low noise traveling wave tube for operation over the frequency range 3,600 to 4,200 Mc/s. The nominal noise figure is 6.5db and the nominal gain at small signal level is 28db with a typical saturated power output of 3mW.

The tube operates in a solenoid type focusing mount with input and output waveguides.

General Characteristics:

Electrical

Heater Voltage	4 to 7 V
Heater Current	0.6A Max.
Frequency Range	3,600 to 4,200 Mc/s
Noise Figure	7.5db Max.
Small Signal Gain	25db Min.

Mechanical

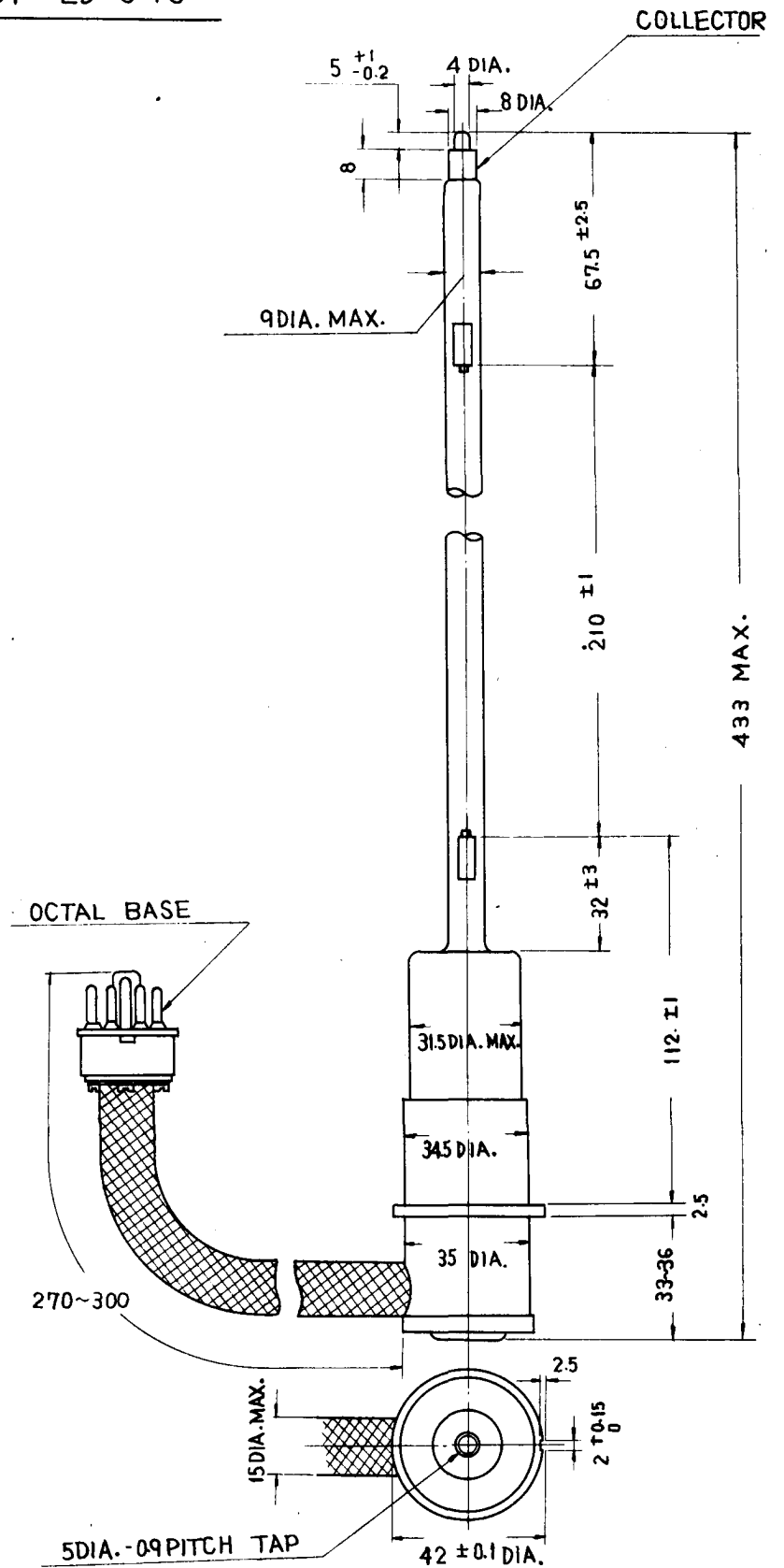
Mounting Position	Any
RF Connection	Waveguides
Socket	Octal Base
Collector Connector	Special Size
Dimensions	See Outline Drawing
Weight	250 grs.
Cooling	Natural

Typical Operation

Frequency	4.170 Mc/s
Heater Voltage	6.0 V
Heater Current	0.45A
Grid Voltage	0 V
Anode 1 Voltage	20 V
Anode 2 Voltage	45 V
Anode 3 Voltage	380 V
Anode 1, 2 & 3 Currents	0 μ A
Helix Voltage	540 V
Helix Current	0.2 μ A
Collector Voltage	800 V
Collector Current	200 μ A
Magnetic Flux Density	700 gauss over the electron gun region and 580 gauss over the helix region
Noise Figure	6.5 db
Small Signal Gain	28 db
Saturated Power Output	3 mW

OUTLINE OF LD-590

BASE CONNECTION	
1	NC
2	ANODE 3
3	HELIX
4	ANODE 2
5	ANODE 1
6	GRID
7	HEATER & CATHODE
8	HEATER



NOTE : DIMENSIONS ARE
IN MILLIMETERS.

