

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

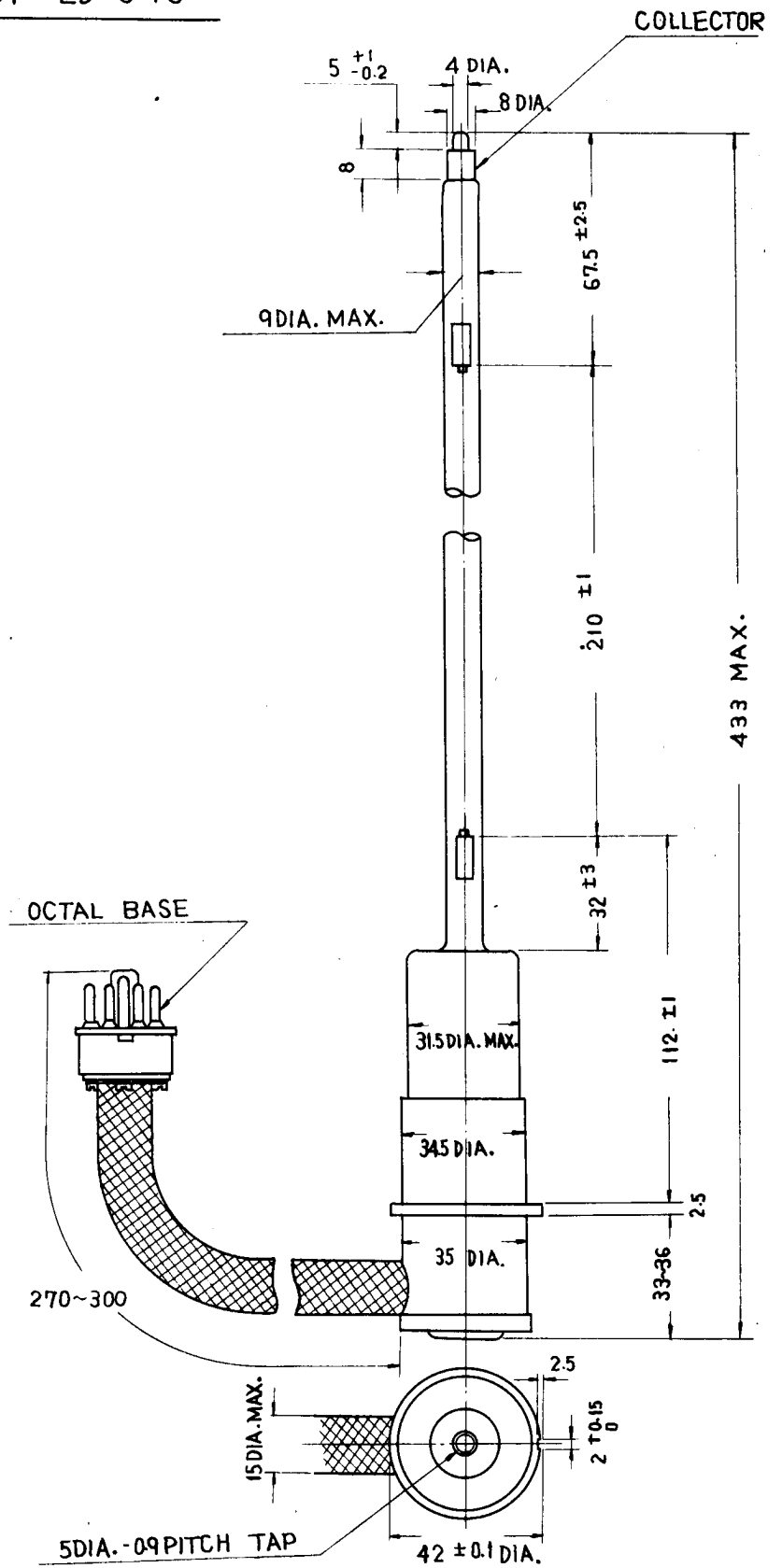
Mounting Position .....	Any
RF Connection .....	Waveguides
Socket .....	Octal Base
Collector Connector .....	Special Size
Dimensions .....	See Outline Drawing
Weight .....	250 grs.
Cooling .....	Natural

### 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 $\mu$ A
Helix Voltage .....	540 V
Helix Current .....	0.2 $\mu$ A
Collector Voltage .....	800 V
Collector Current .....	200 $\mu$ 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.

