

DATA FOR E.I.A. REGISTRATION

MULLARD LIMITED,
Mullard House,
Torrington Place,
LONDON.W.C.1.,
England.

JEDEC TYPE NO. 7637

TUBE TYPE LA4-250

The LA4-250 is a travelling wave tube of unpackaged construction intended for operation as an intermediate amplifier in the 4Gc/s band.

MECHANICAL INFORMATION

Envelope	Glass
Maximum overall length	18.86" (479mm)
Maximum overall diameter	1.26" (32mm)
Base	Terminal connector
Cathode	Indirectly heated
Mounting position	Any

HEATER RATINGS

Heater voltage	6.3 Volts
Heater current	750 mAmps

MAXIMUM RATINGS (absolute values)

Maximum anode 1 voltage	500 Volts
Maximum anode 2 voltage	1.6 kVolts
Maximum anode 1 current	50 μ Amps
Maximum anode 2 current	100 μ Amps
Maximum helix voltage	1.5 kVolts
Maximum helix current	500 μ Amps
Maximum heater-cathode voltage	50 Volts
Maximum collector voltage	1.5 kVolts
Maximum collector current	5.0 mAmps
Maximum collector dissipation	7.5 Watts
Maximum input signal	1.0 Watt

CHARACTERISTICS

	Min.	Max.	
Frequency band	3.6	4.2	Gc/s
Minimum gain (low power level)	30	-	dB
Noise factor	-	25	dB
Saturation power output	200	-	mWatts
Attenuation (cathode current = 0 mAmps)	50	-	dB

OPERATING CONDITIONS

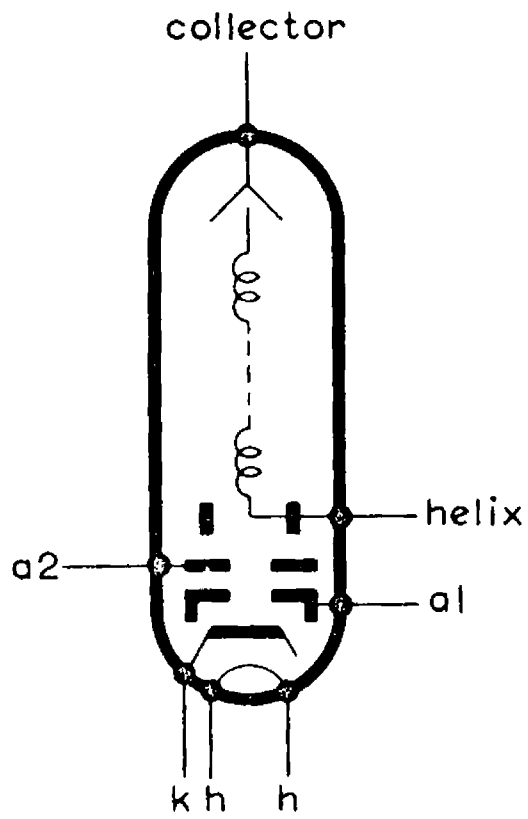
As an intermediate amplifier using a periodic permanent magnet system of approved design.

Frequency	3.9 Gc/s
Anode 1 voltage	200 Volts
Anode 2 voltage	1.2 kVolts (1.0 to 1.5)
Helix voltage	1.2 kVolts
Collector voltage	1.25 kVolts
Collector current	3.5 mAmps
Gain	31 dB
Noise factor	24 dB
Power output	30 mWatts
Input match in recommended mount with matching device adjusted	
At 3.9 Gc/s v.s.w.r.	1.02
At ± 15 Mc/s about 3.9 Gc/s v.s.w.r.	1.10
Output match in recommended mount with matching device adjusted	
At 3.9 Gc/s v.s.w.r.	1.02
At ± 15 Mc/s about 3.9 Gc/s v.s.w.r.	1.10

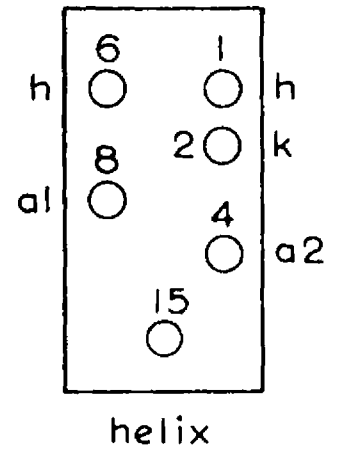
DIMENSIONS

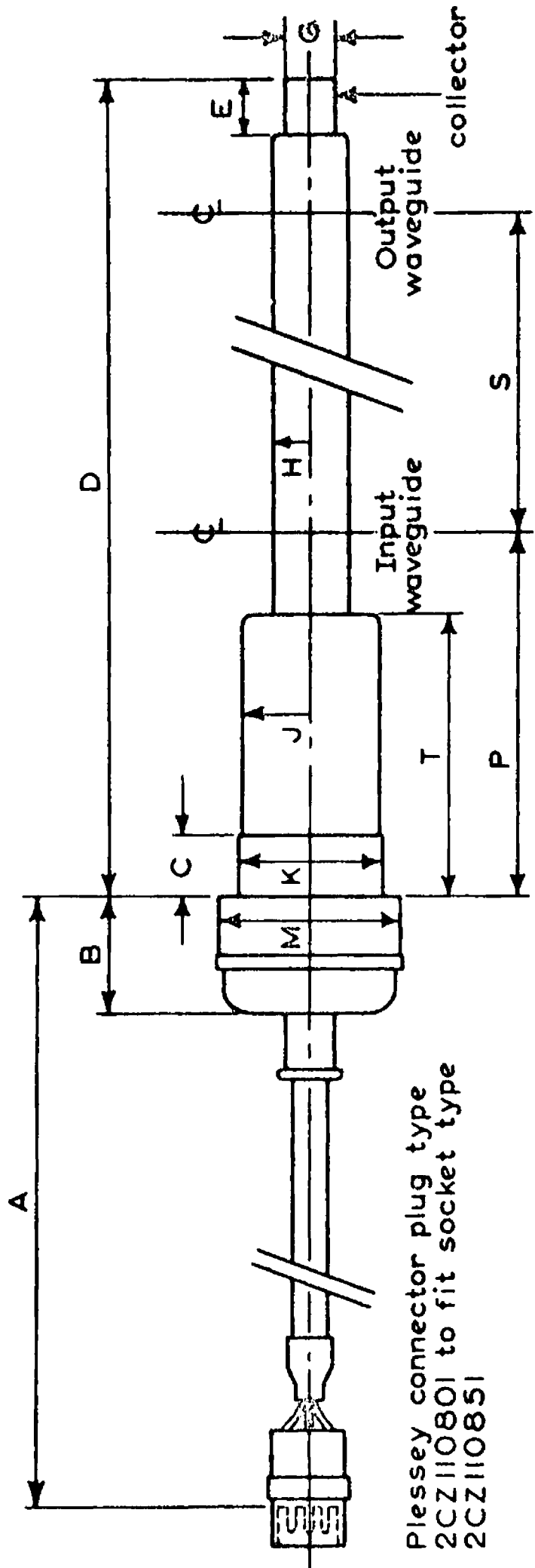
Waveguide dimensions 2.372 x 0.197 inches, 60.25 x 5.00mm.

	Inches	Millimetres	
A	4.331	110	min.
B	1.299	33	max.
C	0.650	16.5	max.
D	14.528	369	max.
E	0.906 \pm 0.004	23 \pm 0.1	
G	0.276 \pm 0.004	7.0 \pm 0.1	
H	0.150	3.8	max.
J	0.465	11.8	max.
K	1.063	27	max.
M	1.260	32	max.
P	3.071 \pm 0.008	78 \pm 0.2	
S	9.445 \pm 0.004	239.9 \pm 0.1	
T	2.051	52.1	max.



Connections viewed looking at plug





Plessey connector plug type
 2CZ110801 to fit socket type
 2CZ110851