

Radar Tube

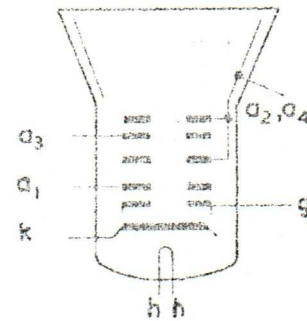
F10-100..

PRELIMINARY DATA

GENERAL

Round face, 10 cm tube, 30° deflection
36.5 mm maximum neck diameter
Electrostatic focus, magnetic deflection
Straight gun
Clear glass

Heater voltage	V_h	6.3	V
Heater current	I_h	0.3	A



ABSOLUTE RATINGS

(voltages referred to cathode)

Maximum second and fourth anode voltage	$V_{a2-a4(max)}$	8.0	kV
Minimum second and fourth anode voltage	$V_{a2-a4(min)}$	4.0	kV
Maximum third anode voltage	$V_{a3(max)}$	+1000 to -500	V
Maximum first anode voltage	$V_{a1(max)}$	550	V
Maximum heater to cathode voltage, heater negative (d.c.)	$V_{h-k(max)}$	250	V
Maximum peak heater to cathode voltage, heater negative (absolute rating)	$V_{h-k(pk)max}$	400*	V
Maximum impedance, grid to cathode (50 Hz)	$Z_{g-k(max)}$	0.5	MΩ
Maximum resistance, grid to cathode	$R_{g-k(max)}$	1.5	MΩ

All voltages referred to cathode

* During a warming up period not exceeding 45 seconds.

PHOSPHOR SCREEN

This type is usually supplied with LD phosphor (F10-100LD) giving an orange trace of very long persistence. Other phosphors can be made available to special order.

Thorn Radio Valves and Tubes Limited



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INTER-ELECTRODE CAPACITANCES

Cathode to all	c_{k-all}	3.5	pF
Grid to all	c_{g-all}	10	pF

* Holder capacitance balanced out.

TYPICAL OPERATION - Grid modulation, voltages referred to cathode.

Second and fourth anode voltage	$V_{a2-a4-k}$	5.0	kV
First anode voltage	V_{a1-k}	400	V
Third anode voltage range for focus	V_{a3-k}	0 to 400	V
Grid to cathode voltage range for cut-off of raster	V_{g-k}	-40 to -77	V
LD screen raster persistence to 10% (approx.)		4.0	s

TYPICAL OPERATION - Cathode modulation, voltages referred to grid

Second and fourth anode voltage	$V_{a2-a4-g}$	5.0	kV
First anode voltage	V_{a1-g}	400	V
Third anode voltage range for focus	V_{a3-g}	0 to 400	V
Cathode to grid voltage range for cut-off of raster	V_{k-g}	36 to 66	V
LD screen raster persistence to 10% (approx.)		4.0	s

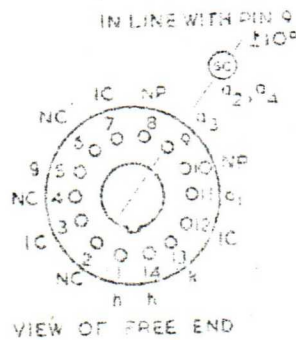
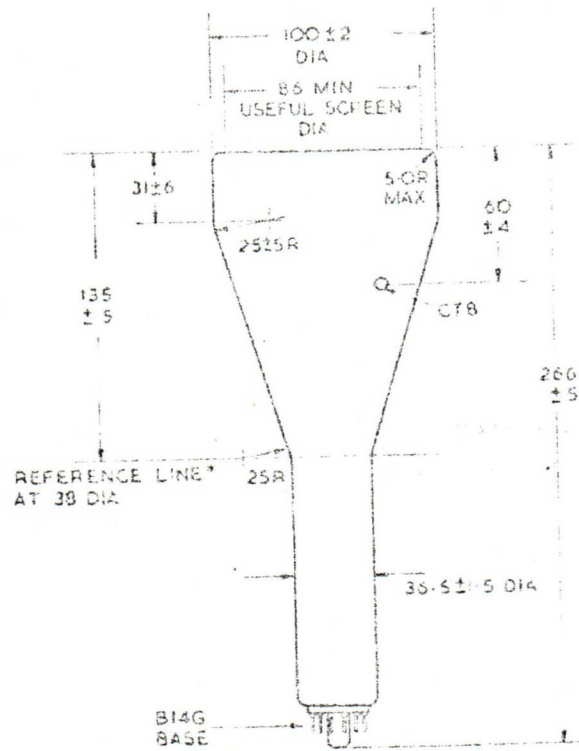
The LD screen is liable to burn even at low values of beam current if operated with a stationary or slow moving spot.

TUBE WEIGHT (approximate) - 400g

MOUNTING POSITION - unrestricted

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All dimensions in mm

Not to be scaled

* Gauge 38 mm internal diameter, 50 mm long to slide freely over neck.