31C13

CATHODE RAY TUBE

Indirectly heated—for Radio DF Compass

TENTATIVE

GENERAL

The 31C13 is a magnetically focused and deflected cathode ray tube. The tube is aluminised, has a 6″ diameter flat face, and is available with a "T1" screen which gives a green trace of medium persistence. It has an internal compass scale graduated with octantal correction and its face is treated to reduce specular reflection.

RATING

Heater Voltage	V_h	6·3	V
Heater Current	I_h	0·6	A
Maximum Anode Voltage	$V_{a(max)}$	10*	kV
Minimum Anode Voltage	$V_{a(min)}$	7·5	kV
Maximum Heater/Cathode Voltage d.c. (heater negative)	$V_{h-k(max)}$	150	V

* 10kV is a design centre rating. The absolute rating of 12·5kV maximum must not be exceeded.

INTER-ELECTRODE CAPACITANCES

Grid/All other electrodes	$c_{g\text{-all}}$	4·7	pF
Cathode/All other electrodes	$c_{k\text{-all}}$	5·3	pF

These capacitances include an Ediswan Clix wafer type duodecal holder.

TYPICAL OPERATION

Anode Voltage	V_a	9·5	kV
Grid Bias Voltage for cut-off of 140 mm focused line	V_g	−43 to −93	V
Average Peak to Peak Modulating Voltage for Modulation up to 150 μA		30	V
Maximum Peak to Peak Modulating Voltage for Modulation of limit Cathode Ray Tube up to 150 μA		35	V

A resistance should be inserted in the anode circuit in order to limit the discharge current to 100 mA(max), in the event of a flash-over inside the tube.

Associated Electrical Industries Limited

Electronic Components Division

Tel.: GERrard 9797

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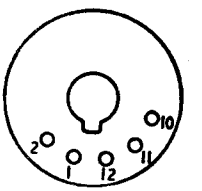
DIMENSIONS

Maximum Overall Length	458	mm
Maximum Face Diameter	160	mm
Maximum Neck Diameter	35	mm
Approximate Nett Weight	2¼	lbs
Approximate Packed Weight	16¼	lbs

CAP—Cavity CT8

BASE—B12A (5 Pin)



Viewed from free end of pins

CONNECTIONS

Pin 1	Heater	h
Pin 2	Grid	g
Pin 3	No Pin	NP
Pin 4	No Pin	NP
Pin 5	No Pin	NP
Pin 6	No Pin	NP
Pin 7	No Pin	NP
Pin 8	No Pin	NP
Pin 9	No Pin	NP
Pin 10	No Connection	NC
Pin 11	Cathode	k
Pin 12	Heater	h
Cap	Anode	a

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