

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	$V_a(\text{max})$	10*	kV
Minimum Anode Voltage	$V_a(\text{min})$	7.5	kV
Maximum Heater/Cathode Voltage d.c. (heater negative)	$V_{h-k(\text{max})}$	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.

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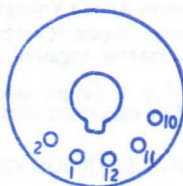
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DIMENSIONS

Maximum Overall Length	458	mm
Maximum Face Diameter	160	mm
Maximum Neck Diameter	35	mm
Approximate Nett Weight	2 $\frac{1}{4}$	lbs
Approximate Packed Weight	16 $\frac{1}{2}$	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