

MAZDA

31C1

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6" MAGNETIC ALUMINISED CATHODE RAY TUBE

Indirectly heated—for Radio D.F. Compass
(High Brightness Level)

RATING

Heater Voltage (volts)	V_h	4.0
Heater Current (amps)	I_h	0.72
Maximum Anode Voltage (volts)	V_a (max)	10,000*
Minimum Anode Voltage (volts)	V_a (min)	7,500

* The maximum rating of 10kV is a Design Centre rating. The absolute rating of 12.5kV maximum must not be exceeded.

INTER-ELECTRODE CAPACITANCES (pF)§

Grid 1/all other electrodes	$c_{g,all}$	4.7
Cathode/all other electrodes	$c_{k,all}$	5.3

§ These capacitances include a "Cinch" wafer duodecal holder.

DIMENSIONS

Maximum Overall Length (mm)	468
Maximum Face Diameter (mm)	160
Maximum Neck Diameter (mm)	35
Approximate Nett Weight (lbs)	2½
Approximate Packed Weight (lbs)	16½

NOTES

The 31C1 Cathode Ray Tube has a concave face treated to reduce specular reflection and has an internal compass scale graduated with octantal correction. The 31C1 and 31C2 differ only in the manner of scale graduation.

TYPICAL OPERATION

Anode Voltage (volts)	V_a	9,500
Negative Grid Bias for cut-off of 140 mm focused line (volts)	V_g	43-93
Average Peak to Peak modulating Voltage for modulation up to 150 μA (volts)		30
Maximum Peak to Peak modulating Voltage for modulation of Limit C.R. Tube up to 150 μA (volts)		35

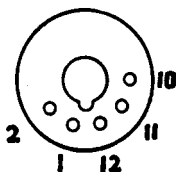
Typical Operation (continued overleaf)

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The heater and cathode should be connected at the same DC potential. In the case of cathode modulation it is recommended that a resistance not exceeding 100,000 ohms should be inserted between heater and cathode.

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

BASE—(B12A) 5 pin

Viewed from Free End of Pins

ANODE CAP—Cavity (CT8)CONNECTIONS

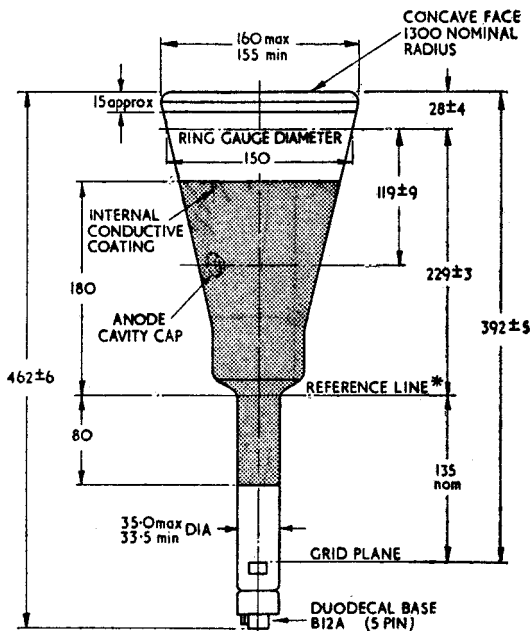
Pin 1	Heater	h
Pin 2	Grid	g
Pin 3	No Pin	NP
Pin 4	No Pin	NP
Pin 5	No Pin	NP
Pin 6	No Pin	NP
Pin 7	No Pin	NP
Pin 8	No Pin	NP
Pin 9	No Pin	NP
Pin 10	No Internal Connection	NC
Pin 11	Cathode	k
Pin 12	Heater	h
Cap	Anode	a

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All dimensions in mm.

Anode Cap in line ($\pm 15^\circ$) with keyway on base.

*Determined by Reference Line Gauge No. 6. (See Section 3)

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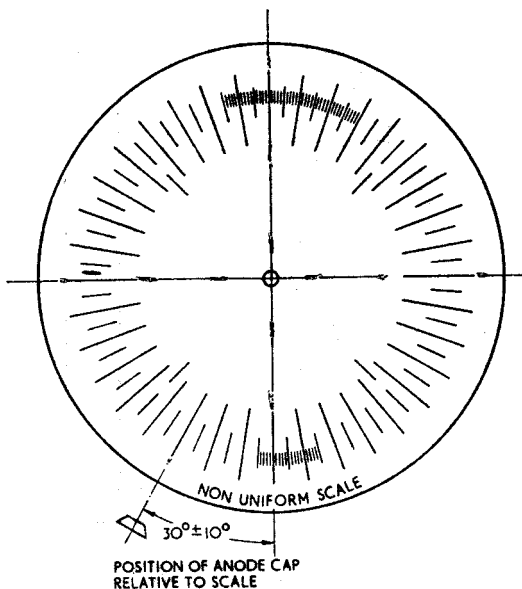
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SCALE ARRANGEMENT.



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INDUSTRIAL
VALVE & CRT DIVISION

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SIEMENS EDISON SWAN LIMITED