

from JEDEC release
#2680, Dec. 28, 1959

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

JEDEC TYPE NO. 7636

TUBE TYPE BA16-10

The BA16-10 is a packaged backward wave oscillator for amplitude pulse or frequency modulation operation in the frequency range of 11 to 18 Gc/s with a power output of 10 to 70 mWatts.

MECHANICAL INFORMATION

Base	Medium shell giant 7 pin with bayonet J.E.T.E.C. A7-17
Envelope	Metal
Maximum overall length	10" (255mm)
Maximum overall diameter	4.33" (110mm)
Cathode	Indirectly heated
Mounting position	Any
Cooling	Natural

HEATER RATINGS

Heater voltage	6.3 Volts
Heater current	1.0 Amps
Heater warm-up time	60 Seconds

MAXIMUM RATINGS (absolute values)

Maximum delay structure voltage	2.5 kVolts
Minimum delay structure voltage	500 Volts
Maximum cathode current	13 mAmps
Maximum anode voltage	500 Volts
Maximum anode current	2 mAmps
Maximum positive grid voltage	0 Volts
Minimum distance from ferrous bodies	9 inches

CHARACTERISTICS

Frequency electronically tunable over the range	Min. 11	Max. 18	Gc/s
Sensitivity over frequency band	2	9	Mc/s per Volt
Power output over frequency band	10	70	mWatts
Grid voltage for maximum output		0	Volts
Grid voltage for zero output		-100	Volts
Grid power for amplitude modulation		0	Watts

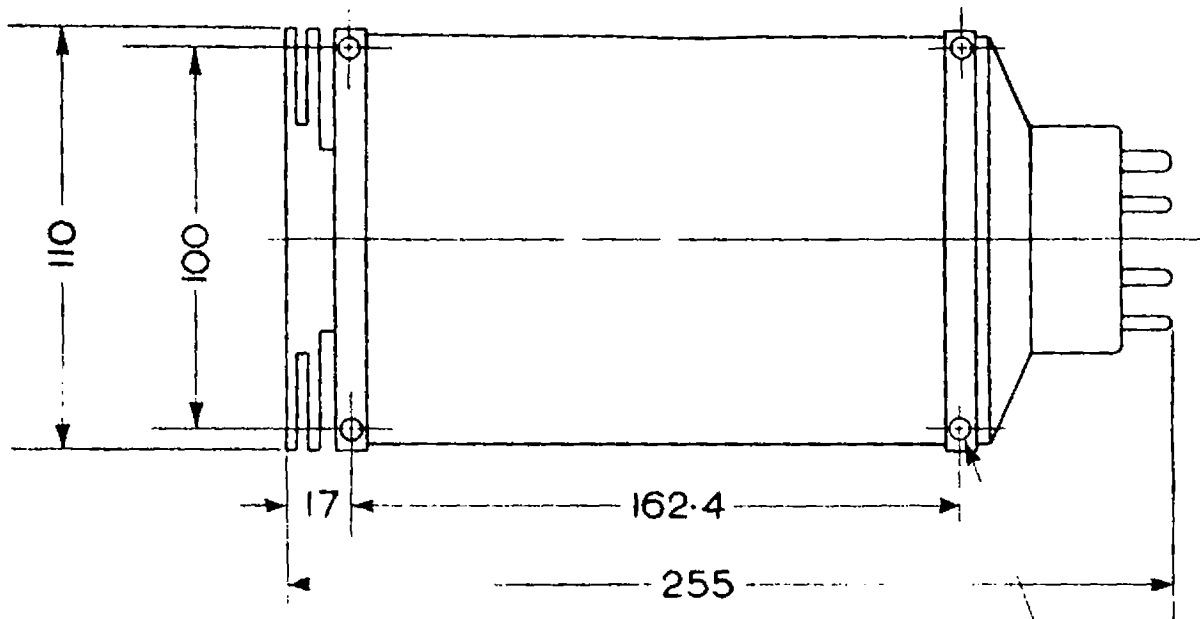
OPERATING CONDITIONS

Frequency	12	15	17.5	Gc/s
Delay structure voltage	0.7	1.3	2.1	kVolts
Delay structure current	12	12	12	mAmps
Anode voltage	330	330	330	Volts
Anode current	1	1	1	mAmp
Grid voltage	0	0	0	Volts
Power output	20	45	35	mWatts

OPERATING NOTE

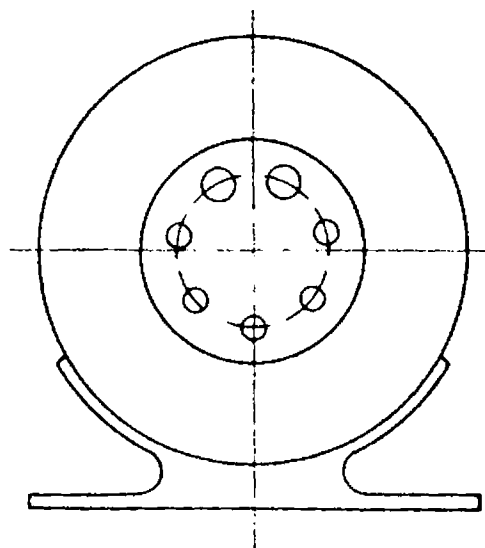
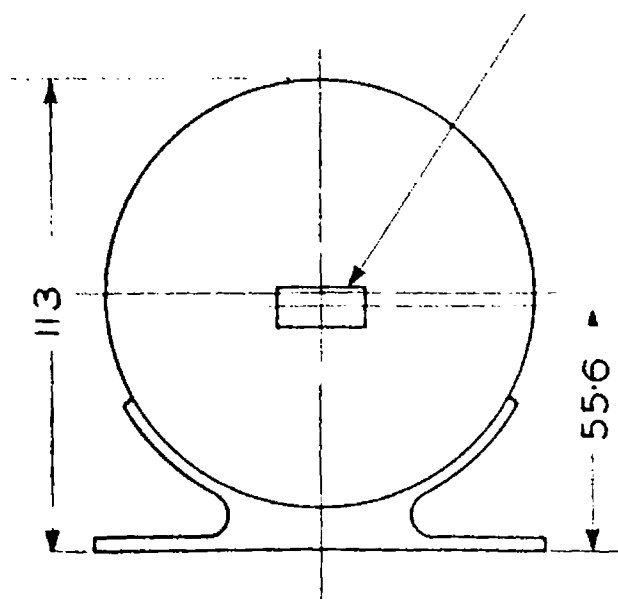
Electrode supplies must be connected in the following order and disconnected in the reverse order:-

- | | | | |
|--------|------|-----------------|-------|
| 1 | 2 | 3 | 4 |
| heater | grid | delay structure | anode |



Output via waveguide
WG18 with bolted
flange inter-services
type Z830030

4 x 2BA
clearance
holes



All dimensions in mm

★ delay structure

