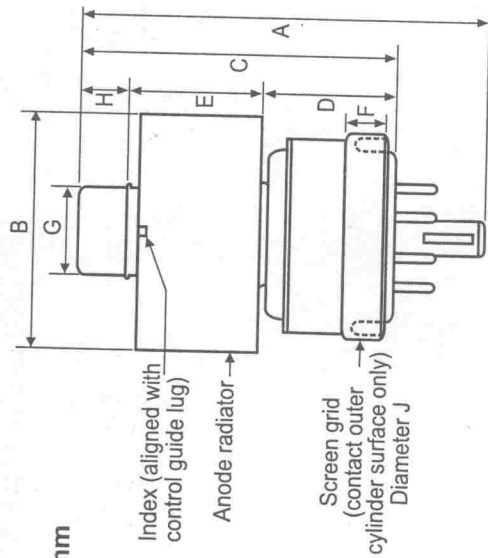


## Tetrodes 4CX150A, 4CX250B, 4CX250BC, 4CX250BM

The 4CX150A, 4CX250B/ГY-108Б, 4CX250BC/Г644 and 4CX250BM are compact ceramic/metal tetrodes with a plate dissipation rating of 250 watts and forced-air cooling. They are intended for Class AB1 SSB linear RF amplifier service for stationary and mobile equipment. These tetrodes have an indirectly-heated oxide cathode.

The 4CX250BM operates without positive screen grid current.

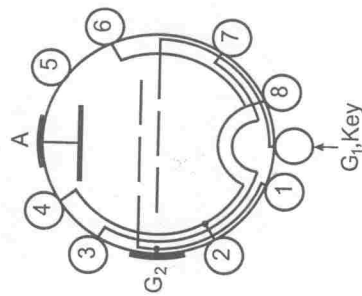


**Dimensional Data, mm**

A	64
B	41.6
C	40
D	21
E	19
F	4
G	14
H	5
J	36

### Terminal connections

- 1 Screen grid.
- 2, 4, 6, 8 Cathode.
- 3, 7 Heater.
- 5 Internal connection. (do not use for external connection)
- G2 (coaxial ring) Screen grid.
- G1 (key) Control grid.
- A (external) Anode.



## Tetrodes 4CX150A, 4CX250B, 4CX250BC, 4CX250BM

### Characteristics

#### Electrical

Cathode	Oxide-coated, unipotential
Heater Voltage (AC or DC)	6.0 ± 0.3 V
Current @ 6 V	2.6 ± 0.3 A

Cathode-to-heater potential, max. ±150 V

Direct interelectrode capacitances max. (grounded cathode)

Input	15.7 pF
Output	4.5 pF
Feedback	0.04 pF

#### Mechanical

Operating position	Any
Base	Special 9-pin

Maximum dimensions:

Diameter	41.6 mm
Height	64 mm
Net weight	150 g

Cooling Forced air

Maximum operating temperature 250° C

### Radio Frequency Linear Amplifier, Class AB1 SSB Operation

#### Maximum ratings

DC plate voltage	2 000 V
DC screen voltage	400 V
DC plate current	250 mA
Plate dissipation	250 W
Screen dissipation	12 W
Grid dissipation	2 W

**Tetrodes 4CX150A, 4CX250B, 4CX250BC, 4CX250BM**

**Typical operation**

(Peak-envelope conditions, grid driven)			
DC plate voltage	1 000	1 500	2 200 V
DC screen voltage	350	350	350 V
DC grid voltage*	-55	-55	-55 V
Zero-signal DC plate current	100	100	100 mA
Single-tone DC plate current	250	250	250 mA
Two-tone DC plate current	190	190	190 mA
Single-tone DC screen current**	10	8	5 mA
Two-tone DC screen current**	2	-1	-2 mA
Single-tone DC grid current**	0	0	0 mA
Peak RF grid voltage**	50	50	50 V
Plate output power	120	215	300 W
Resonant load impedance	2 000	3 000	4 000 ohms

\* Adjust to specified zero-signal DC plate current

\*\* Approximate values

**Cooling**

Sufficient cooling must be provided for the anode, base seals and body seals to maintain operating temperatures below the rated maximum values. Air requirements to maintain seal temperatures at 225°C in 50°C ambient air are shown in the table. These requirements apply when an air system socket is used with an anode chimney and when air-flow is in the base-to-anode direction.

Plate Dissipation, Watts	Sea level		
	Air Flow, m <sup>3</sup> /hour	Pressure Drop, mm of water	Air Flow, m <sup>3</sup> /hour
200	8.5	13.2	12.4
250	11	20.8	16.0

**Tetrodes 4CX150A, 4CX250B, 4CX250BC, 4CX250BM**

**Typical Constant Current Characteristics**

Grounded cathode, screen voltage = 250 V

- Plate current - Amperes
- - - Screen current - Amperes
- · · Grid current - Amperes

