

PHILIPS ELECTRON DEVICES LTD

116 Vanderhoof Ave.,
Toronto 17, Ont.

PHILIPS

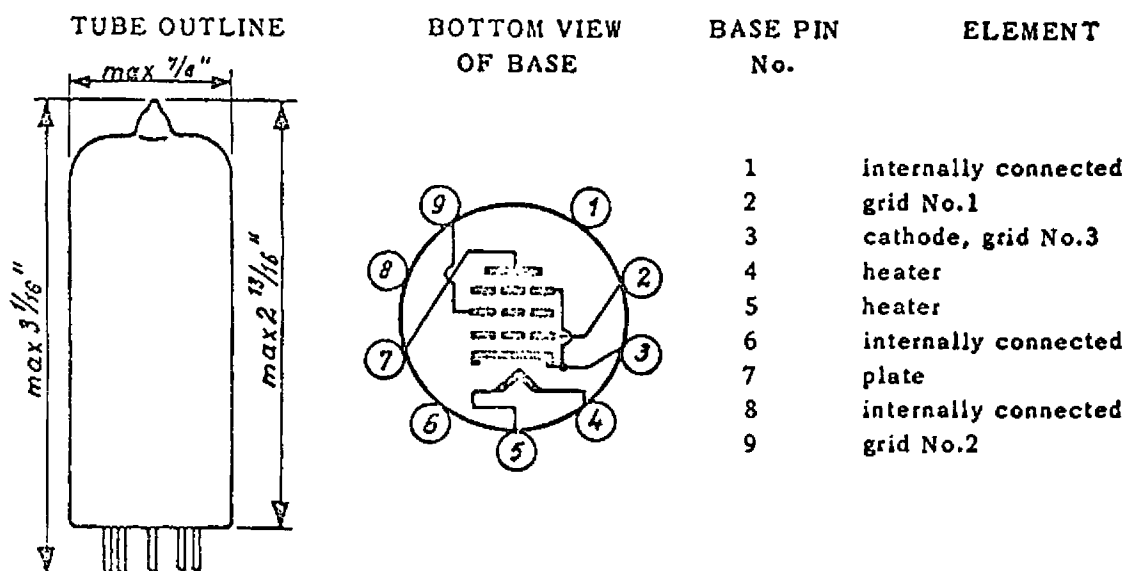
6CW5
8CW5
15CW5
30 CW 5

DESCRIPTION

AF output pentode or frame output pentode.

MECHANICAL DATA

Cathode	coated unipotential
Bulb	T 6½
Base	E 9-1
Basing	9 CV
Mounting position	Any



ELECTRICAL DATA

Heating	6CW5	8CW5	15CW5	30CW5
heater voltage	6.3	8±10%	15±10% V	30 ± 10% V
heater current	0.76±10%	0.6	0.3 A	0.15 A

LIMITING VALUES (design max.)

for use as AF amplifier class A_1 - AB_1 or single ended push-pull

Plate voltage	max.	275 V
Plate voltage without plate current	max.	600 V
Plate dissipation	max.	14 W
Grid No.2 voltage	max.	220 V
Grid No.2 voltage without current	max.	600 V
Grid No.2 dissipation	max.	2.1 W
Grid No.2 peak dissipation	max.	7 W
Cathode current	max.	110 mA

JANUARY 1963

data from JEDEC release #2556E, June 15, 1964
curves from JEDEC release #2556, Aug. 3, 1959

6CW5
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LIMITING VALUES (continued)

for use as vertical deflection amplifier, for operation in a 525-line, 30-frame system

Plate voltage	max.	275 V
Peak positive-pulse plate voltage	max.	2200 V ¹⁾
Grid No.2 voltage	max.	275 V
Peak negative-pulse Grid No.1 voltage	max.	250 V
Cathode current		
peak	max.	240 mA
average	max.	110 mA
Grid No.2 input	max.	2.1 W
Plate dissipation	max.	12 W

Voltage between cathode and heater

Cathode positive to heater		
peak	max.	330 V
D.C.	max.	220 V
Cathode negative to heater		
peak	max.	330 V
D.C.	max.	220 V

Maximum circuit values

Grid No.1 circuit resistance		
as AF amplifier	max.	1 MΩ
as deflection amplifier	max.	2.2 MΩ
Circuit resistance between heater and cathode	max.	20 000 Ω

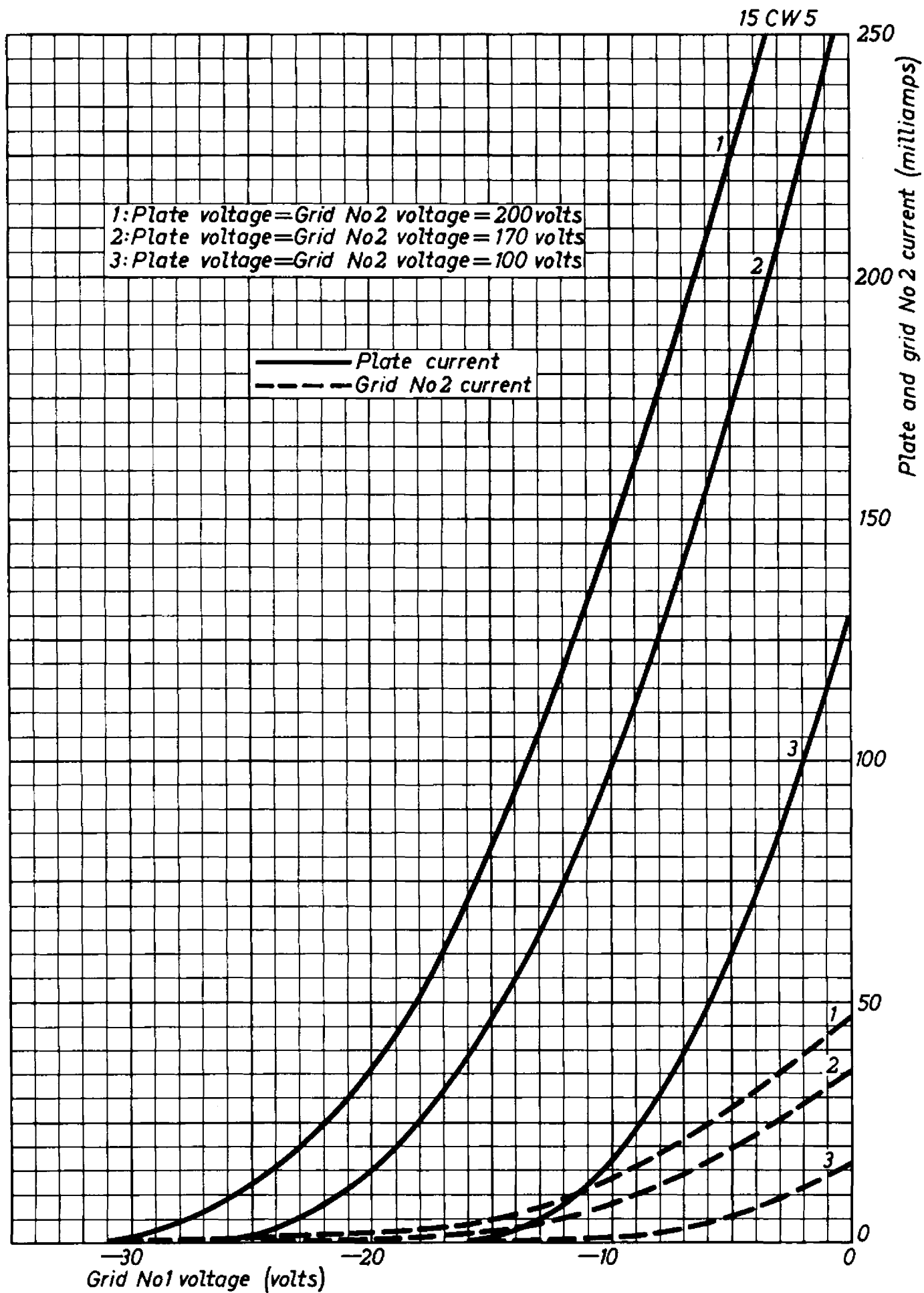
TYPICAL CHARACTERISTICS

Plate voltage	170 V
Grid No.2 voltage	170 V
Grid No.1 voltage	-12.5 V
Plate current	70 mA
Grid No.2 current	3.5 mA
Transconductance	11 000 μU
Amplification factor of grid No.2 with respect to grid No.1	8
Plate resistance	26 000 Ω

Direct interelectrode capacitances

Grid No.1 to all other elements except plate	13 μμF
Plate to all other elements except grid No.1	6.8 μμF
Plate to grid No.1	max. 0.6 μμF
Grid No.1 to heater	max. 0.25 μμF

¹⁾ Max. pulse duration 6% of a cycle with a max. of 1.2 msec.



15CW5

Grid No1 voltage =

0 volt

Grid No2 voltage = 200 volts

Plate dissipation =
12 watts

Plate current (milliamps)

500

400

300

200

100

0

Plate voltage (volts)

-2.5

-5

-7.5

-10

-12.5

-15

-17.5

-20

-22.5

-25

