PHILIPS ELECTRON DEVICES LTD
116 Vanderhoof Ave.,
Toronto 17, Ont.

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

tube outline

BOTTOM VIEW
OF BASE

BASE PIN
No.

ELEMENT
1 internally connected
2 grid No.1
3 cathode, grid No.3
4 heater
5 heater
6 internally connected
7 plate
8 internally connected
9 grid No.2

ELECTRICAL DATA

heater voltage

6CW5 8CW5 15CW5 30CW5

heater current

6.3 8±10% 15±10% V 30±10% V
0.76±10% 0.6 0.3 A 0.15 A

LIMITING VALUES (design max.)
for use as AF amplifier class A₁-AB₁ 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
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. 2300 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 μA

**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 μF
**Plate to all other elements except grid No.1** 6.8 μF
**Plate to grid No.1** max. 0.6 μF
**Grid No.1 to heater** max. 0.25 μF

\(^1\)) Max. pulse duration 6% of a cycle with a max. of 1.2 msec.
1: Plate voltage = Grid No2 voltage = 200 volts
2: Plate voltage = Grid No2 voltage = 170 volts
3: Plate voltage = Grid No2 voltage = 100 volts

Plate and grid No2 current (milliamps)

Plate current

Grid No2 current

Grid No1 voltage (volts)