

Directly heated subminiature electrometer triode designed for precision measurement and amplification of extremely small electrical currents.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	1.25 V / 13 mA	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	25000 Ω
TRANSCONDUCTANCE	0.00008 S
AMPLIFICATION FACTOR	2
MAXIMUM PLATE VOLTAGE	25 V
Philips directly heated subminiature electrometer triode. Published gm 80 μA/V (0.00008 S) and mu 2; promoted rp 25000 ohms is calculated as mu/gm, not independently specified. Absolute maximum anode voltage 25 V and anode current 250 μA (not an explicitly stated cathode-current limit). Filament 1.25 V DC, 13 mA, allowable 1.1–1.5 V. Typical Va 9 V, Ia 100 μA, Vg -2.5 V; grid current typical 8.5e-14 A, limit 1.25e-13 A in darkness. Apply filament voltage before anode voltage.	

Directly heated subminiature electrometer triode for very-low-current measurement.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1957 Philips Receiving and Amplifying Tubes

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1957 PHILIPS RECEIVING AND AMPLIFYING TUBES

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	1.25 V	—
HeaterOrFilamentCurrent	13 mA	—
GridCurrentTypical	0.000000000085 mA	Electrometer
Anode current	250 μ A	Absolute maximum anode current
Grid Current	0.000000000125 mA	Maximum specified grid current magnitude, measured in darkness
Filament voltage	1.1–1.5 V	Nominal filament voltage 1.25 V DC; absolute limits 1.1–1.5 V
Grid Current	0.000000000085 mA	Typical grid current magnitude in darkness at normal operating conditions
OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	9 V	Electrometer
Plate Current	100 μ A	Electrometer



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1999 Philips 0-D

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1999 PHILIPS 0-D

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heating : direct by D.C. V_e	1.25 V	Heating : direct by D.C. $V_e = 1,25$ V
Chauffage: direct par C.C. I	13 mA	Chauffage: direct par C.C. I = 13 mA
2 "Crossover point"(measured at V_p)	Crossover-point explanatory note (English): measured at $V_a=9$ V; grid current reverses polarity.	
"Point de croisement" (mesuré & V_o)	Crossover-point explanatory note (French), same definition as English.	
v{J}bergangspunkt" (gemessen bei V_o)	Crossover-point explanatory note (German), same definition as English.	
Control Grid Voltage	-3.75--2 V	Typical grid bias -2.5 V; published range -3.75 to -2.0 V at $V_a=9$ V, $I_a=100$ μ A

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Vgd) = -1,3	~~-1.6~~ -1.3 V	Grid-current crossover point measured at Va=9 V; approximate -1.3 V, limit -1.6 V
3 "Crossover point" (measured at Va	Crossover-point explanatory note (English), duplicate from alternate Philips sheet.	3 "Crossover point" (measured at Va = 9 V) is the point
"Point ge croisement" (mesuré & Va	Crossover-point explanatory note (French), duplicate translation.	"Point ge croisement" (mesuré & Va = 9 V), c'est le
"Übergangspunkt" (gemessen bei Va	Crossover-point explanatory note (German), duplicate translation.	"Übergangspunkt" (gemessen bei Va = 9 V), das heisst
Filament voltage	1.1-1.5 V	Philips filament voltage absolute limits; original OCR incorrectly labeled as grid voltage

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