



ELECTRONIC TUBE REFERENCE

3538

Specialized - Photo Tube electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PHOTOEMISSIVE DETECTOR

Gas-filled red- and infrared-sensitive phototube using a cesium-on-oxidized-silver photocathode with approximately 1.35 cm² sensitive area. Gas filling enhances output for longer-wavelength optical detection.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	— / —	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Photoemissive Detector	
MAXIMUM PLATE VOLTAGE	100 V
<i>Published ratings and characteristics promoted semantically from the approved Philips source.</i>	

Gas-filled red and infrared phototube with cesium-on-oxidized-silver cathode and 1.35 square-centimeter sensitive area.



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 · PhotoemissiveDetector

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Projected Sensitive Area	1.35 cm ²	—
Dark Current Maximum	0.1 uA	At 50 C
Sensitivity	120 uA/lm	2700 K lamp

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Operating Voltage	85 V	—
Maximum Anode Voltage	100 V	—
Maximum Cathode Current Density	0.02 uA/mm ²	—
Maximum Ambient Temperature	50 C	—



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 · PhotoemissiveDetector

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode voltage Vg	100 V	Anode voltage Vg = 100 V

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Sensitivity N	150 uA/lm	Sensitivity N = 150 uA/lm
Anode-to-cathode capacity. . Cak	25 pF	Anode-to-cathode capacity. . Cak = 25 pF
Maximum anode voltage . . . Vamax	100 V	Maximum anode voltage . . . Vamax = 100 V
Maximum anode current . . . Iamax	75 uA	Maximum anode current . . . Iamax = 75 uA
100% corresponds to a sensitivity of	8000 uA	100% corresponds to a sensitivity of 8000 uA/W. That is to say a current of
Published electrical value	8000 uA	8000 uA will flow through the cell when it is touched by a radiation

TUBE TINKER

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