



ELECTRONIC TUBE REFERENCE

3512

Specialized - Photo Tube electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PHOTOEMISSIVE DETECTOR

High-vacuum caesium-cathode photoelectric cell for direct light detection and measurement. Its photosensitive cathode produces a current proportional to incident illumination without an internal multiplication structure.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	4
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	500 V
MAXIMUM CATHODE CURRENT	0.005 mA
<i>Published Mullard/Ferranti ratings and characteristics promoted where applicable; additional electrical values retained as parameters.</i>	

High-vacuum caesium-cathode photoelectric cell.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Mullard

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

1963 MULLARD

Section 1 · PhotoemissiveDetector

CONSTRUCTION

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Photocathode / fill	High-vacuum caesium cathode	—

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode voltage maximum	500 V	—
Normal anode voltage	100 V	—
Anode current maximum	5 uA	—
Light flux maximum	0.1 lm	—

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Sensitivity	20 uA/lm	—

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-cathode capacitance	3 pF	—

APPLICATION

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Photoelectric light detection	—

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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode voltage V_a	100 V	Anode voltage $V_a = 100V$
Sensitivity N	26 μA	Sensitivity $N = 26 \text{ uA/lm}$
sensitivity is to light of	8500 A	sensitivity is to light of 8500 A wavelength; the cell is thus best fitted for working
lacquer which is impenetrable to light of shorter wavelength than	6000 A	lacquer which is impenetrable to light of shorter wavelength than 6000 A; this
is to say, a current of	1070 μA	is to say, a current of 1070 uA will flow when the cell is touched by a radiation
The illumination should be adjusted so that anode current never exceeds	5 pA	The illumination should be adjusted so that anode current never exceeds 5 pA;

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-to-cathode capacity. . C_{ak}	3 pF	Anode-to-cathode capacity. . $C_{ak} = 3 \text{ pF}$

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum anode voltage. . . V_{amax}	500 V	Maximum anode voltage. . . $V_{amax} = 500 \text{ V}$
Maximum anode current . . . I_{amex}	5 μA	Maximum anode current . . . $I_{amex} = 5 \text{ uA}$

TUBE TINKER

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