



ELECTRONIC TUBE REFERENCE

3530

Specialized - Photo Tube electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PHOTOEMISSIVEDETECTOR

Gas-filled caesium-cathode photoelectric cell for direct light detection. Gas amplification increases output relative to a high-vacuum photocell while retaining the basic single-photocathode photoelectric detection function.

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 PhotoemissiveDetector	
MAXIMUM PLATE VOLTAGE	100 V
MAXIMUM CATHODE CURRENT	0.0075 mA
<i>Published Mullard/Ferranti ratings and characteristics promoted where applicable; additional electrical values retained as parameters.</i>	

Gas-filled 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	Gas-filled caesium cathode	—

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode voltage maximum	100 V	—
Normal anode voltage	100 V	—
Anode current maximum	7.5 μ A	—
Safety resistance minimum	0.1 Mohm	—

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Sensitivity	150 μ A/lm	—
Glow voltage	140 V	—

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-cathode capacitance	5 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 Vg	100 V	Anode voltage Vg = 100 V
Sensitivity N	150 µA	Sensitivity N = 150 uA/lm
100% corresponds to a sensitivity of	8000 µA	100% corresponds to a sensitivity of 8000 uA/W. That is to say a current of
exceeds 7'	5 µA	exceeds 7'5 uA; too high a current results in positive ions damaging the cathode,

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-to-cathode capacity . . . Cak	5 pF	Anode-to-cathode capacity . . Cak = 5 pF

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum anode voltage . . . Vamax	100 V	Maximum anode voltage . . . Vamax = 100 V
Maximum anode current . . . Iamax	75 µA	Maximum anode current . . . Iamax = 75 uA