

ELECTRONIC TUBE REFERENCE

3510

Specialized - Photo Tube electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PHOTOEMISSIVEDETECTOR

High-vacuum potassium-cathode photoelectric cell for direct light detection and measurement. Its photocathode generates current in response to incident radiation without internal electron multiplication.

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

SECTION1 PhotoemissiveDetector	
MAXIMUM PLATE VOLTAGE	500 V
MAXIMUM CATHODE CURRENT	0.003 mA
Published Mullard/Ferranti ratings and characteristics promoted where applicable; additional electrical values retained as parameters.	

High-vacuum potassium-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 potassium cathode	—

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode voltage maximum	500 V	—
Normal anode voltage	100 V	—
Anode current maximum	3 uA	—
Light flux maximum	0.1 lm	—

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Sensitivity	3 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 Va	100 v	Anode voltage Va = 100 v
Sensitivity N	3 pA	Sensitivity N = 3 pA/lm
tage of high sensitivity to light of a wavelength below	6500 A	tage of high sensitivity to light of a wavelength below 6500 A. Accordingly the
Since the sensitivity of	3 pA	Since the sensitivity of 3 pA/lm quoted above is measured with illumination
sensitivity to daylight is	6 pA	sensitivity to daylight is 6 pA/lm. The curve overleal, showing response in

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode to cath. capacity Cak	3 pF	Anode to cath. capacity Cak =3 pF

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum anode voltage Vamax	500 v	Maximum anode voltage Vamax = 500 v
Admissible temperature . tmax	50 °c	Admissible temperature . tmax = 50 °c
permissible maximum anode current is	3 pA	permissible maximum anode current is 3 pA, and the cell must never be