



ELECTRONIC TUBE REFERENCE

3520

Specialized - Photo Tube electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PHOTOEMISSIVE DETECTOR

Philips photoelectric tube for direct light detection and measurement. Manufacturer documentation provides construction, ratings, characteristics, operating data, and stated applications for converting incident light into an electrical photocurrent.

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

No fixed ratings recorded.

Published ratings/characteristics are additionally preserved in TUBE_SECTION_PARAMETER.

3520 is a photoelectric tube for light detection and measurement. The supplied Philips datasheet was read for construction, ratings, characteristics, operating data, and stated applications.

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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Sensitivity N = 2'	5 mA	Sensitivity N = 2'5 mA/lm
First anode voltage . . . Va, = about	70 v	First anode voltage . . . Va, = about 70 v
cathode voltage . . . Vks, = about	210 v	cathode voltage . . . Vks, = about 210 v
sion cathode voltage . Vs, = about	420 v	sion cathode voltage . Vs, = about 420 v
sion cathode voltage . Vs, = about	560 v	sion cathode voltage . Vs, = about 560 v
Second anode voltage . . Vq, = about	630 v	Second anode voltage . . Vq, = about 630 v
to a sensitivity of	107 mA	to a sensitivity of 107 mA/W.
stage of multiplication, the second anode will be about	110 V	stage of multiplication, the second anode will be about 110 V positive in relation
corresponds to a sensitivity of	107 mA	corresponds to a sensitivity of 107 ma/W. This expression for the sensitivity
1/30 Im, while anode curreni must never rise to about	100 pA	1/30 Im, while anode curreni must never rise to about 100 pA.

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-to-cath. capacity . Cak	4 pF	Anode-to-cath. capacity . Cak = 4 pF

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Mazximum anode current . Iamax	100 μA	Mazximum anode current . Iamax = 100 uA
without causing a rise of anode current (Va: max	700 V	without causing a rise of anode current (Va: max = 700 V); in other words the

TUBE TINKER

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