

Eleven-stage Amperex photomultiplier with at least 32 mm useful photocathode diameter. Cascaded secondary-emission stages provide high internal gain for sensitive measurement of very low optical signal levels.

GENERAL CHARACTERISTICS

BASE DESIGNATION	Duodecal	BASE PINS	12
NOMINAL HEATER	– / –	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 PhotoemissiveDetector	
MAXIMUM PLATE VOLTAGE	2250 V
MAXIMUM PLATE DISSIPATION	0.5 W
Photomultiplier structure with photocathode and dynode chain.	

50AVP is a PhotoTube device in the supplied Amperex literature. Eleven-stage Amperex photomultiplier tube with 32 mm minimum useful photocathode diameter.



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

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-to-last-dynode Capacitance	3 pF	—
Anode Capacitance	5 pF	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Amperex Condensed

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

1963 AMPEREX CONDENSED

Section 1 · PhotoemissiveDetector

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minimum useful photocathode diameter	32 mm	—
Number of stages	11 count	—
Base	duodecal	—
Recommended supply voltage	1800 V	—
Minimum photocathode-to-first-dynode voltage	180 V	—
Minimum voltage between other electrodes	80 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minimum D1-to-D2 voltage	160 V	50AVP special instruction

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum spectral response wavelength	4200 angstrom	—
Minimum photocathode sensitivity	25 uA/lm	—
Average photocathode sensitivity	50 uA/lm	—
Minimum anode sensitivity	60 A/lm	—


SOURCE DATA APPENDIX

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
Number of stages	11	—
Photocathode useful diameter	min 32 mm	—
Wavelength maximum response	4200 ±300 angstrom	—
Luminous sensitivity	50 uA/lm	—
Current amplification	60— A/lm	Vb=1800V; Vs=147V
Anode dark current	max 50e-9 A	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode capacitance	5 pF	—
Anode-to-last-dynode capacitance	3 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode current max	0.7 mA	—

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