

ELECTRONIC TUBE REFERENCE

Z70U

Specialized - Switching Tube electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

THYRATRON

Cold-cathode gas-discharge switching tube. Available source material confirms heaterless thyatron-type construction but does not establish a narrower application.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	— / —	PARALLEL HEATER	— / —
HEATING	Indirect; cold cathode	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Thyatron	
MAXIMUM CATHODE CURRENT	3 mA
Subminiature cold-cathode trigger tube with positive starter and priming cathode for DC circuits.	

Z70U is a Other device in the supplied Amperex literature. Cold-cathode gas-filled trigger tube for pulse/control circuits; source explicitly co-designates the numeric and Z-series type.



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 · Thyatron

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
StarterIgnitionVoltageMinimum	137 V	AnodeVoltage=250V
StarterIgnitionVoltageMaximum	153 V	AnodeVoltage=250V
AnodeIgnitionVoltageMinimum	325 V	—
MaintainingVoltageMinimum	113 V	AnodeCurrent=3mA
MaintainingVoltageMaximum	121 V	AnodeCurrent=3mA
CountingSpeedMinimum	3 kHz	DC counting
CountingSpeedMaximum	5 kHz	DC counting



SOURCE OPERATING CONDITIONS

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 · Thyatron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode voltage range	200–310 V	DC
Peak cathode current	16 mA	—
Recommended priming resistor	18 MOhm	—
Cathode current range	2–4 mA	DC

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Starter-to-cathode breakdown voltage	137–153 V	—
Anode-to-cathode sustaining voltage	111–121 V	—
Anode-to-cathode breakdown voltage	>325 V	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Philips Electron Tubes Handbook V2

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V2

Section 1 · Thyatron

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Starter breakdown voltage at 250 V supply	137–153 V	—
Temperature coefficient of starter breakdown voltage	-25 mV/degC	Maximum
Anode maintaining voltage at 3 mA	111–121 V	—
Anode-cathode breakdown voltage at starter 0 V	340— V	Minimum
Anode-to-primer breakdown voltage	—200 V	Maximum
Starter maintaining voltage	105–125 V	I _{st} =30uA; I _a =0
Anode breakdown delay time	—5 us	Maximum

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minimum anode supply voltage for DC ignition	200— V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum anode supply voltage for pulsed ignition	— 310 V	—
Peak cathode current	— 200 mA	—
Average cathode current	— 5 mA	—
Primer current	— 12 uA	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1999 Philips E-Z

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

1999 PHILIPS E-Z

Section 1 · Thyatron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Starter ignition voltage minimum	137 V	—
Starter ignition voltage maximum	153 V	—
Anode maintaining voltage	117 V	Ia=3mA
Anode ignition voltage	325 V	—

TUBE TINKER

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