



ELECTRONIC TUBE REFERENCE

EA52

Diode (NOT rectifier) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

DIODE

UHF thermionic diode intended for high-frequency signal rectification, combining low capacitance with operation suited to radio-frequency measurement and detection circuits.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	3
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Diode	
MAXIMUM PLATE VOLTAGE	1000 V
MAXIMUM CATHODE CURRENT	5 mA
PEAK INVERSE VOLTAGE	1000 V
NOMINAL OUTPUT CURRENT	0.3 mA
PEAK FORWARD CURRENT	5 mA
<i>Measuring-diode limits include 1000 V inverse voltage below 100 MHz and 5 mA peak cathode current.</i>	

EA52 is listed in the supplied Amperex material as a UHF diode. Published ratings and characteristics were captured from the supplied table.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1958 Amperex Industrial

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

1958 AMPEREX INDUSTRIAL

Section 1 · Diode

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	1000 V	Published table
Maximum plate current	0.3 mA	UHF
Maximum frequency	1000 MHz	UHF

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater/filament voltage	6.3 V	Published rating
Heater/filament current	300 mA	Published rating



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X Tesla

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

195X TESLA

Section 1 · Diode

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Interelectrode capacitances	Published	See source sheet for electrode-specific capacitance values



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 · Diode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published rating
Heater current	300 mA	Published rating

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	1000 V	UHF below 100 MHz
Maximum plate current	0.3 mA	UHF
Maximum frequency	1000 MHz	UHF



SOURCE DATA APPENDIX

1963 Philips Electron Tubes Handbook V1a

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V1A

Section 1 · Diode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-to-cathode capacitance maximum	0.5 pF	Section1

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Diode current	0.5 mA	MeasuringDiode

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak inverse voltage maximum below 100 MHz	1000 V	MeasuringDiode
Cathode current maximum	300 μ A	Section1
Peak cathode current maximum	5 mA	Section1
Heater-to-cathode voltage maximum	50 V	Section1
Maximum operating frequency	1000 MHz	MeasuringDiode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Diode voltage maximum	3 V	At0.5mA


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Philips Electron Tubes Handbook V3

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V3

Section 1 · Diode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published heater rating
Heater current	300 mA	Published heater rating
Diode voltage drop	3 V	At 0.5 mA
Insulation resistance	10000 MOhm	DiodeToCathode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Diode current	0.5 mA	Published characteristic point


SOURCE DATA APPENDIX

1967 Mullard Receiving and Amplifying Valves

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

1967 MULLARD RECEIVING AND AMPLIFYING VALVES

Section 1 · Diode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode Cathode Capacitance	0.5 pF	Maximum

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Forward Voltage	3 V	Maximum

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Anode Current	300 uA	—
Maximum Peak Cathode Current	5 mA	—
Maximum Heater-Cathode Voltage	50 V	—
Peak Inverse Voltage	1000 V	—
Nominal Output Current	0.3 mA	—
Peak Forward Current	5 mA	—
Interelectrode Capacitance Data Published	1	SourceTablePresent



TUBE TINKER
ELECTRON TUBE DATABASE

SOURCE DATA APPENDIX

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 · Diode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DIODE DE MESURE pour des fréquences jusqu'a	1000 MHz	Published datasheet value
MESSDIODE fiir Frequenzen bis	1000 MHz	Published datasheet value
Chauffage: igdirect par C.A, ou C.C. Ve =	6.3 V	Published datasheet value
rallele Ir =	300 mA	Published datasheet value
MESSDIODE fiilr Frejuenzen bis	1000 MHz	Published datasheet value
Chauffage: indirect par C.A. ou C.C. Ve =	6.3 V	Published datasheet value
MEASURING DIODE for frequencies up to	1000 MHz	Published datasheet value
Heater voltage Vf =	6.3 V	Published datasheet value
Heater current Ir =	300 mA	Published datasheet value
Between anode and cathode Ca <	0.5 pF	Published datasheet value
Heater voltage Vp =	6.3 V	Published datasheet value
Diode current Ig =	0.5 mA	Published datasheet value
Diode voltage Vg <	3 V	Published datasheet value
at frequencies lower than	100 MHz	Published datasheet value
V4 invp (f <	1000 V	Published datasheet value
at frequencies higher than	100 MHz	Published datasheet value
Vg tnvp (f >	1000 V	Published datasheet value
volts) Ix = max	300 pA	Published datasheet value
and cathode Vygr = max	50 V	Published datasheet value
tween heater and cathode Rygf = max	20 kQ	Published datasheet value
I =	0.5 mA	Published datasheet value
Va <	3 V	Published datasheet value
Isolement d-k rgg >	0 MQ	Published datasheet value
Ik = max	300 pA	Published datasheet value
Ikp = max	5 mA	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
v _{kt} = max,	50 V	Published datasheet value
V _e = min,	5.6 V	Published datasheet value
V _e = max	7 V	Published datasheet value
V _a invp (f >	100 MHz	Published datasheet value
T VF =	63 V	Published datasheet value

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Capacité Ca <	0.5 pF	Published datasheet value
Capacite Ca <	0.5 pF	Published datasheet value

TUBE TINKER

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and their source documents.

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