



ELECTRONIC TUBE REFERENCE

EA53

Diode (NOT rectifier) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

DIODE

RF measuring diode designed specifically for voltage measurement at frequencies to approximately 1 GHz, providing thermionic rectification for high-frequency instrumentation.

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

SECTION1 Diode	
PEAK INVERSE VOLTAGE	1000 V
PEAK FORWARD CURRENT	5 mA
<i>Promoted from clearly identified published ratings/characteristics; additional operating points, capacitances, detector data, microwave data, and special-quality limits are retained in TUBE_SECTION_PARAMETER.</i>	

Measuring diode for RF voltage measurement at frequencies up to about 1000 MHz.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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
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

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
MEASURING DIODE for frequencies up to	1000 MHz	Published datasheet value
Heater voltage $V_r =$	6.3 V	Published datasheet value
Heater current $I_r =$	300 mA	Published datasheet value
Between anode and cathode $C_a <$	0.5 pF	Published datasheet value
Heater voltage $V_e =$	6.3 V	Published datasheet value
Diode current I_g	0.5 mA	Published datasheet value
Diode voltage $V_a <$	3 V	Published datasheet value
at frequencies lower than	100 MHz	Published datasheet value
V_4 invy ($f <$	1000 V	Published datasheet value
at frequencies higher than	100 MHz	Published datasheet value
V_a invp ($f >$	1000 V	Published datasheet value
age from	300 pA	Published datasheet value
cathode $V_{er} = \max$	50 V	Published datasheet value
$_ \max$	7 V	Published datasheet value
$Y_t = g_{in},$	5.6 V	Published datasheet value
curve $a\%$	1000 MHz	Published datasheet value
(%) $H_{vf} =$	63 V	Published datasheet value
$V_p =$	6.3 V	Published datasheet value

TUBE TINKER

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