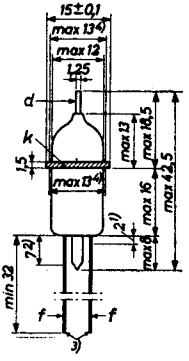
MEASURING DIODE for frequencies up to 1000 Mc/s
DIODE DE MESURE pour des fréquences jusqu'à 1000 MHz
MESSDIODE für Frequenzen bis 1000 MHz

Heating : indirect by A.C. or D.C. series or parallel supply
Chauffage: indirect par C.A. ou C.C. alimentation série ou parallèle
Heizung : indirekt durch Wechsel- oder Gleichstrom; Serien- oder Parallelspeisung

V_f = 6,3 V
I_f = 300 mA

Dimensions in mm
Dimensions en mm
Abmessungen in mm



Eccentricity of the anode pin with respect to the cathode: max. 0.25 mm
Excentricité de la broche de l'anode par rapport à la cathode: 0,25 mm au maximum
Exzentrizität des Anodenstiftes gegenüber der Katode: max. 0,25 mm

In order to avoid strain, the connections to the cathode should be made elastically
Afin d'éviter des tensions du verre, la cathode doit être connectée par des conducteurs flexibles
Um Glasspannungen zu vermeiden sind die Katodenzuleitungen federnd zu halten

---

1) This part of the leads should not be bent
Cette partie des fils ne sera pas pliée
Dieser Teil der Drähte soll nicht gebogen werden

2) This part of the leads should not be soldered
Ne pas faire de soudures à cette partie des fils
Dieser Teil der Drähte soll nicht gelötet werden

3)-4) See page 2; voir page 2; siehe Seite 2

PHILIPS

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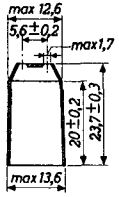
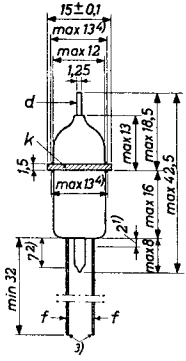
MEASURING DIODE for frequencies up to 1000 Mc/s
DIODE DE MESURE pour des fréquences jusqu'à 1000 MHz
MESSDIODE für Frequenzen bis 1000 MHz

Heating : indirect by A.C. or D.C. series or parallel supply
Chauffage: indirect par C.A. ou C.C. alimentation série ou parallèle
Heizung : indirekt durch Wechsel- oder Gleichstrom; Serien- oder Parallelspeisung

V_f = 6,3 V
I_f = 300 mA

Dimensions in mm
Dimensions en mm
Abmessungen in mm





Protective cap 5)
Culot de protection
Schutzkappe

Eccentricity of the anode pin with respect to the cathode: max. 0.25 mm
Excentricité de la broche de l'anode par rapport à la cathode: 0,25 mm au max.
Exzentrizität des Anodenstiftes gegenüber der Katode: max. 0,25 mm

In order to avoid strain, the connections to the cathode should be made elastically
Afin d'éviter des tensions du verre, la cathode doit être connectée par des conducteurs flexibles
Um Glasspannungen zu vermeiden sind die Katodenzuleitungen federnd zu halten

---

1) This part of the leads should not be bent
Cette partie des fils ne sera pas pliée
Dieser Teil der Drähte soll nicht gebogen werden

2) This part of the leads should not be soldered
Ne pas faire de soudures à cette partie des fils
Dieser Teil der Drähte soll nicht gelötet werden

3)4)5)See page 2; voir page 2; siehe Seite 2

MEASURING DIODE for frequencies up to 1000 Mc/s

HEATING

Indirect by A.C. or D.C.; series or parallel supply

Heater voltage V_f = 6.3 V
Heater current I_f = 300 mA

CAPACITANCE

Between anode and cathode C_d < 0.5 pF

TYPICAL CHARACTERISTICS

Heater voltage	V_f	= 6.3 V
Diode current	I_d	= 0.5 mA
Diode voltage	V_d	< 3 V

LIMITING VALUES (Absolute limits)

Peak inverse voltage

at frequencies lower than 100 Mc/s

$V_{d\ invp}$ (f < 100 Mc/s) = max. 1000 V

at frequencies higher than 100 Mc/s

$V_{d\ invp}$ (f > 100 Mc/s) = max. $\frac{100}{f}$ x 1000 V [1]

Cathode current (heater voltage from 5.6 to 7.0 volts)	I_k	= max. 300 μA
Peak cathode current (heater voltage from 5.6 to 7.0 volts)	I_{kp}	= max. 5 mA [2]
Voltage between heater and cathode	V_{kf}	= max. 50 V
External resistance between heater and cathode	R_{kf}	= max. 20 kΩ
Heater voltage	V_f	= max. 7.0 V = min. 5.6 V

[1]) f in Mc/s

→ [2]) For frequencies lower than 100 c/s
I_{kp} = max. 0.3 + 0.047f mA (f in c/s)

Capacitance
Capacité
Kapazität

	C_d	<	0,5 pF

Typical characteristics
Caractéristiques types
Kenndaten

	I_d	=	0,5 mA
	V_d	<	3 V
Insulation Isolement d-k Isolation	r_{dk}	>	10 000 MΩ

Limiting values (ABSOLUTE LIMITS)
Caractéristiques limites (LIMITES ABSOLUES)
Grenzdaten (ABSOLUTE GRENZEN)

V_d inv_p (f < 100 Mc/s)	= max.	1000 V
V_d inv_p (f > 100 Mc/s)	= max.	$1000 \times \frac{100}{f}$ V[5])
I_k	= max.	300 μA
I_{k_p}	= max.	5 mA
V_{kf}	= max.	50 V
R_{kf}	= max.	20 kΩ
V_f	= min.	5,6 V
V_f	= max.	7,0 V

---

[3])Cadmiated lead; 0.4 mm diameter
Fil cadmié d'un diamètre de 0,4 mm
Kadmierter Draht; 0,4 mm Durchmesser

[4])Maximum diameter of the glass seal
Diamètre maximum du scellement de verre
Max. Durchmesser der Glaseinschmelzung

[5])f in Mc/s; f en MHz; f in MHz

Capacitance
Capacité
Kapazität

C_d	<	0,5 pF

Typical characteristics
Caractéristiques types
Kenndaten

I_d	=	0,5 mA
V_d	<	3 V
Insulation Isolement Isolation d-k r_{dk}	>	10 000 MΩ

Limiting values (ABSOLUTE LIMITS)
Caractéristiques limites (LIMITES ABSOLUES)
Grenzdaten (ABSOLUTE GRENZEN).

V_d inv_p (f < 100 Mc/s)	= max.	1000 V
V_d inv_p (f > 100 Mc/s)	= max.	$1000 \times \frac{100}{f}$ V [6]
I_k	= max.	300 µA
I_{k_p}	= max.	5 mA
V_{kf}	= max.	50 V
R_{kf}	= max.	20 kΩ
V_f	= min.	5,6 V
V_f	= max.	7,0 V

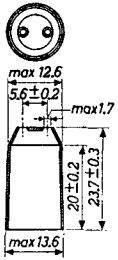
[3]) Cadmiated lead; 0.4 mm diameter
Fil cadmié d'un diamètre de 0,4 mm
Kadmierter Draht; 0,4 mm Durchmesser

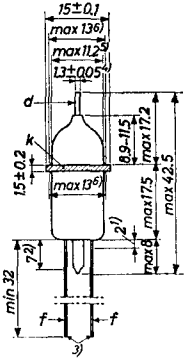
[4]) Maximum diameter of the glass seal
Diamètre maximum du scellement de verre
Max. Durchmesser der Glaseinschmelzung

[5]) The temperature of the protective cap should not exceed 100 °C
La température du culot de protection ne surpassera pas 100 °C
Die Temperatur der Schutzkappe soll 100 °C nicht überschreiten

[6]) f in Mc/s; f en MHz; f in MHz

Dimensions in mm





Protective cap

The temperature of the protective cap should not exceed 100 °C

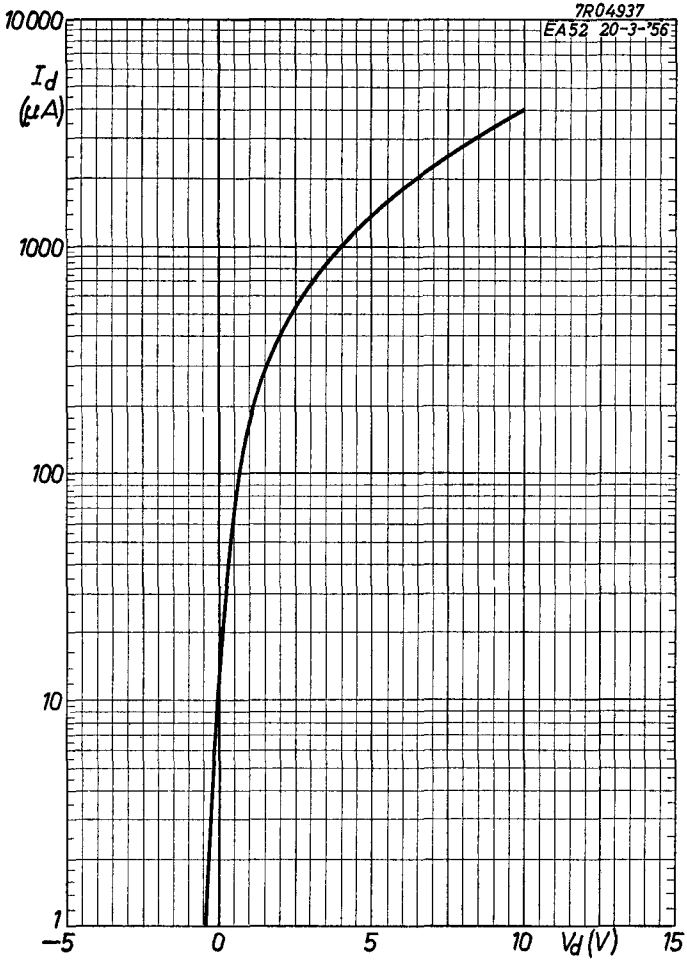
In order to avoid strain, the connection to the cathode disc should be sufficiently flexible

For curves of the EA52 please refer to type EA53

1) This part of the leads should not be bent
2) This part of the leads should not be soldered
3) Gold plated leads, 0.4 mm diameter
4) Eccentricity with respect to the cathode disc max. 0.25 mm
5) Eccentricity with respect to the cathode disc max. 0.35 mm
6) Maximum diameter of the glass seal

PHILIPS

EA52



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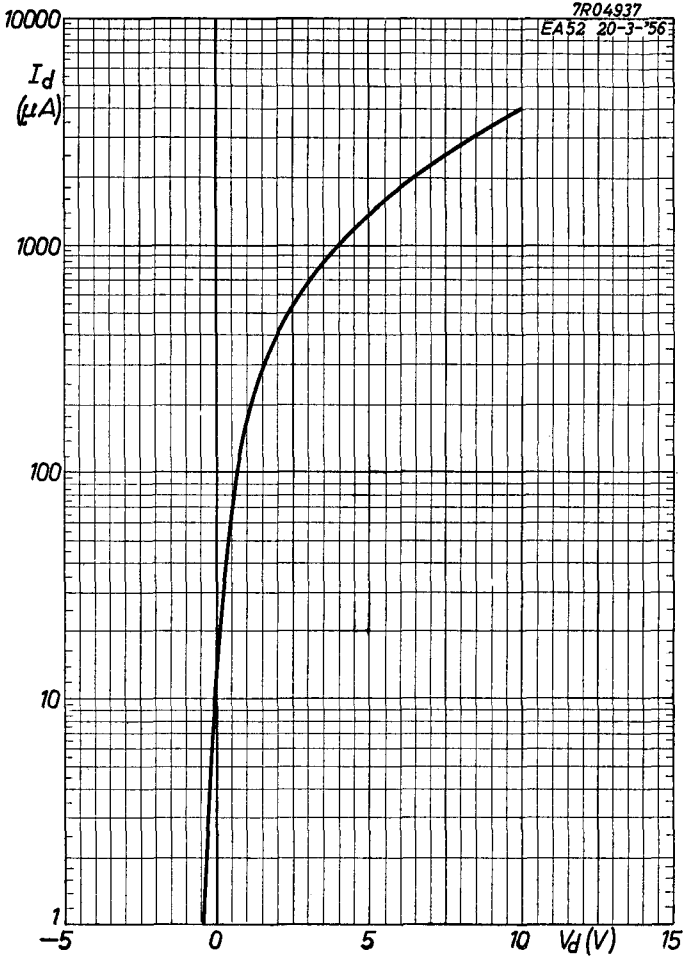
PHILIPS

EA 52



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EA52

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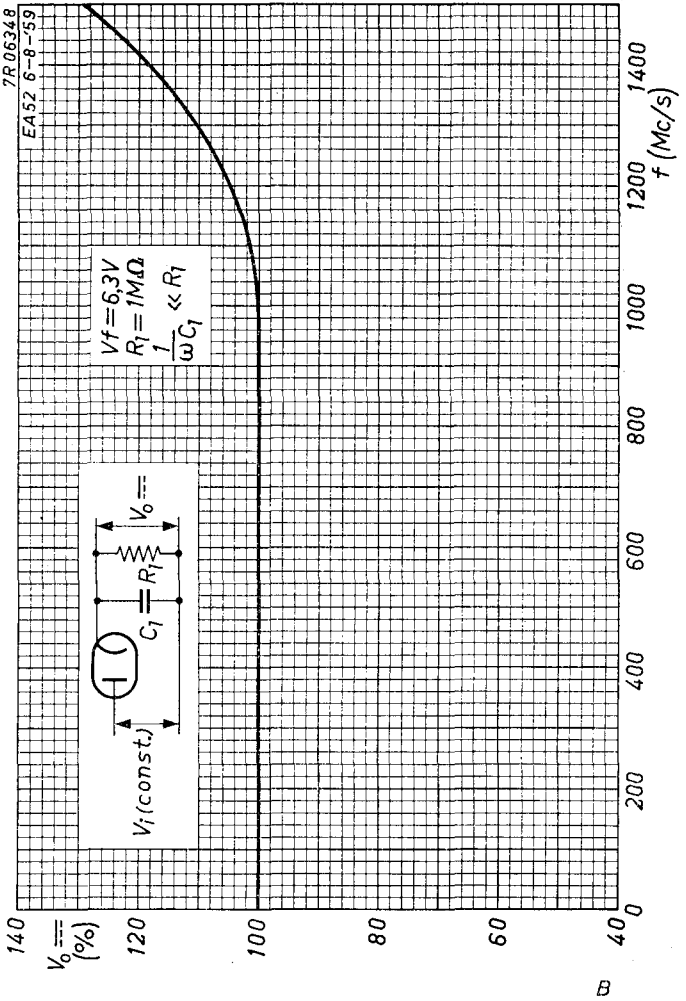

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Electronic Tube HANDBOOK

EA52

page	sheet	date
1	1	1957.05.05
2	1	1959.10.10
3	1	1962.12.12
4	2	1957.05.05
5	2	1959.10.10
6	2	1962.12.12
7	A	1957.05.05
8	A	1959.09.09
9	B	1959.09.09
10	FP	2005.05.06