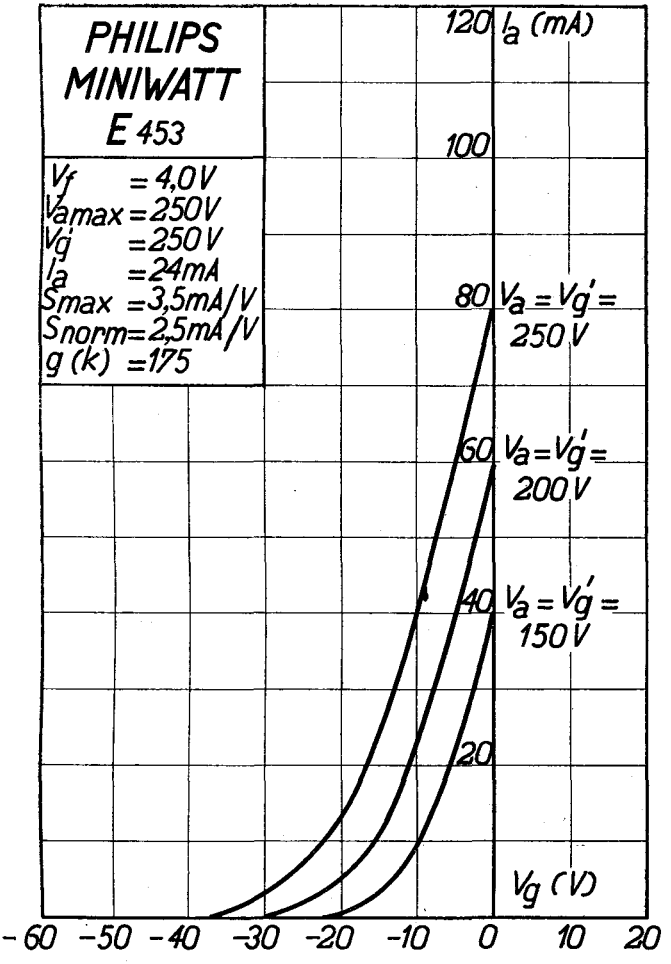
E 453

PHILIPS „MINIWATT"

Heizspannung Tension de chauffage Filament voltage	v_f	=	4,0 V
Heizstrom Courant de chauffage Filament current	i_f	=	ca. env. 1,1 A appr.
Anodenspannung Tension anodique Anode voltage	$v_{a\,max.}$	=	250 V
Schirmgitterspannung Tension de grille-écran Screen-grid voltage	$V_{g'}$	=	250 V
Normaler Anodenstrom Courant anodique normal Normal anode current	i_a	=	24 mA
Neg. Gittervorspannung Polarisation négative de grille Negative grid bias	v_g	=	ca. env. 15 V appr.
Verstärkungsfaktor Coefficient d'amplification Amplification factor	$g(k)$	=	175
Steilheit (max.) Inclinaison (max.) Slope (max.)	$S_{max.}$	=	3,5 mA/V
Steilheit (norm.) Inclinaison (norm.) Slope (norm.)	$S_{norm.}$	=	2,5 mA/V
Innerer Widerstand (norm.) Résistance intérieure (norm.) Internal resistance (norm.)	R_i	=	70000 Ohm
Anodenverlustleistung Dissipation anodique Anode dissipation	$w_{a\,max.}$	=	6 W
Max. Länge Longueur max. Overall length	l	=	105 mm
Grösster Durchmesser Diamètre max. Max. diameter	d	=	51 mm
Sockel Culot Base		=	B 35
Sockelschaltung Connexion du culot Base connection		=	S. XVIII

Anwendung: Endstufe
Application: Tube final
Function: Power valve

5/10'33


PHILIPS
MINIWATT
E 453
Vf = 4,0 V
Vamax = 250 V
Vg' = 250 V
Ia = 24 mA
Smax = 3,5 mA/V
Snorm = 2,5 mA/V
g (k) = 175
120
Ia (mA)
100
80
Va = Vg' = 250 V
60
Va = Vg' = 200 V
40
Va = Vg' = 150 V
20
Vg (V)
-60
-50
-40
-30
-20
-10
0
10
20

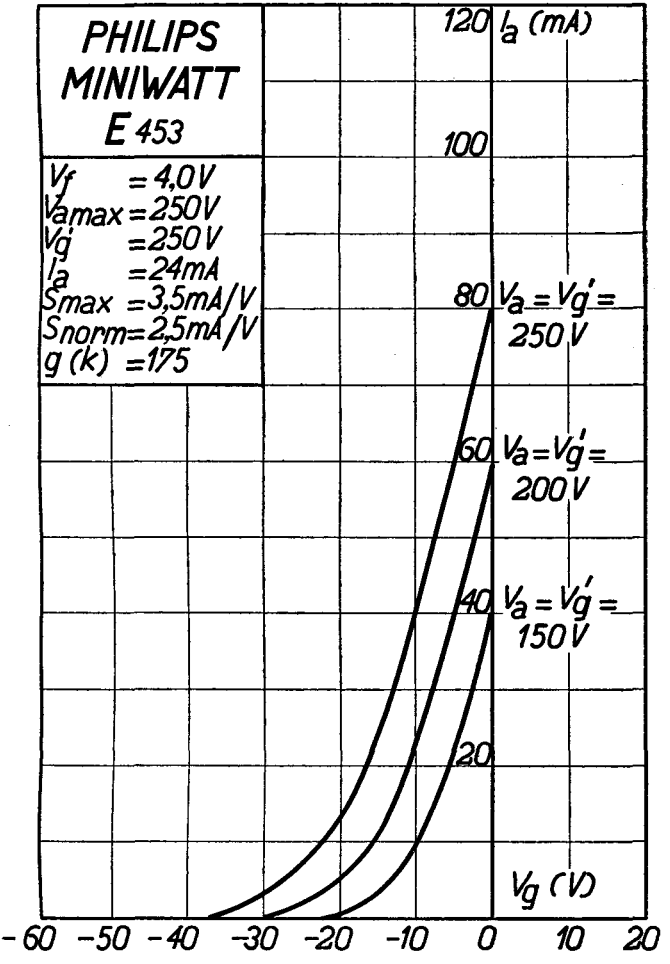
E 453

PHILIPS „MINIWATT"

Heizspannung Tension de chauffage Filament voltage	V_f	=	4,0 V
Heizstrom Courant de chauffage Filament current	I_f	=	ca. env. 1,1 A appr.
Anodenspannung Tension anodique Anode voltage	$V_{a\ max}$	=	250 V
Schirmgitterspannung Tension de grille-écran Screen-grid voltage	$V_{g'}$	=	250 V
Normaler Anodenstrom Courant anodique normal Normal anode current	I_a	=	24 mA
Neg. Gittervorspannung Polarisation négative de grille Negative grid bias	V_g	=	ca. env. 18 V appr.
Verstärkungsfaktor Coefficient d'amplification Amplification factor	$g(k)$	=	175
Steilheit (max.) Inclinaison (max.) Slope (max.)	$S_{max.}$	=	3,5 mA/V
Steilheit (norm.) Inclinaison (norm.) Slope (norm.)	$S_{norm.}$	=	2,5 mA/V
Innerer Widerstand (norm.) Résistance intérieure (norm.) Internal resistance (norm.)	R_i	=	70000 Ohm
Anodenverlustleistung Dissipation anodique Anode dissipation	$W_{a\ max.}$	=	6 W
Max. Länge Longueur max. Overall length	l	=	105 mm
Grösster Durchmesser Diamètre max. Max. diameter	d	=	51 mm
Sockel Culot Base		=	B 35
Sockelschaltung Connexion du culot Base connection		=	S XVIII

Anwendung: Endstufe
Application: Tube final
Function: Power valve

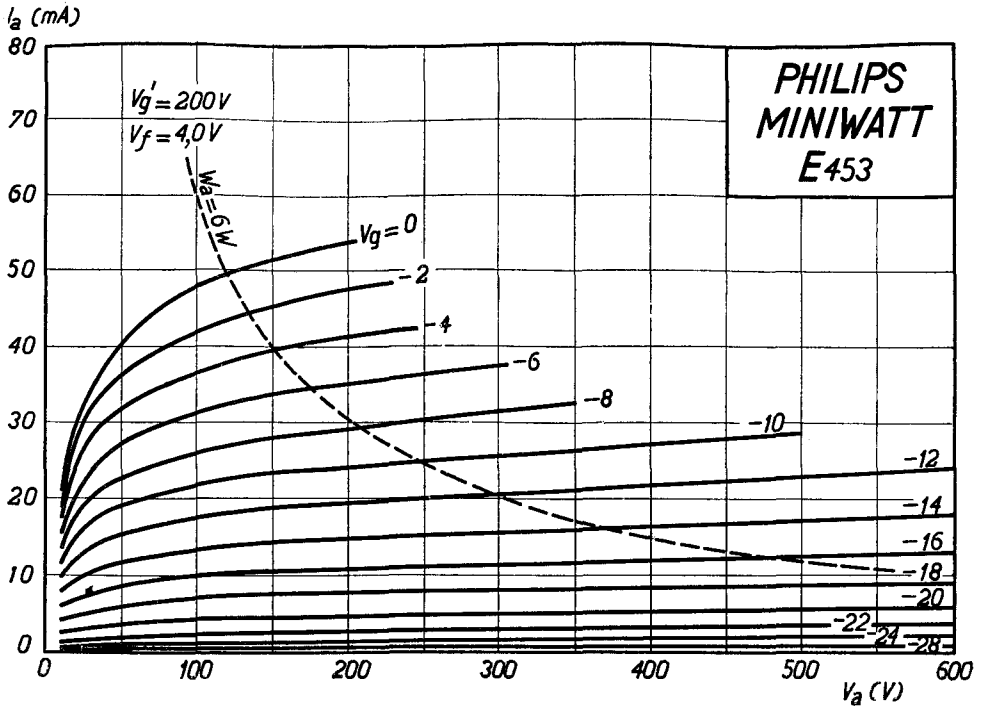
5/10'33


PHILIPS
MINIWATT
E 453
Vf = 4,0 V
Vamax = 250 V
Vg' = 250 V
Ia = 24 mA
Smax = 3,5 mA/V
Snorm = 2,5 mA/V
g (k) = 175
120
100
80
60
40
20
Ia (mA)
Va = Vg' = 250 V
Va = Vg' = 200 V
Va = Vg' = 150 V
Vg (V)
-60
-50
-40
-30
-20
-10
0
10
20

E 453

PHILIPS „MINIWATT"

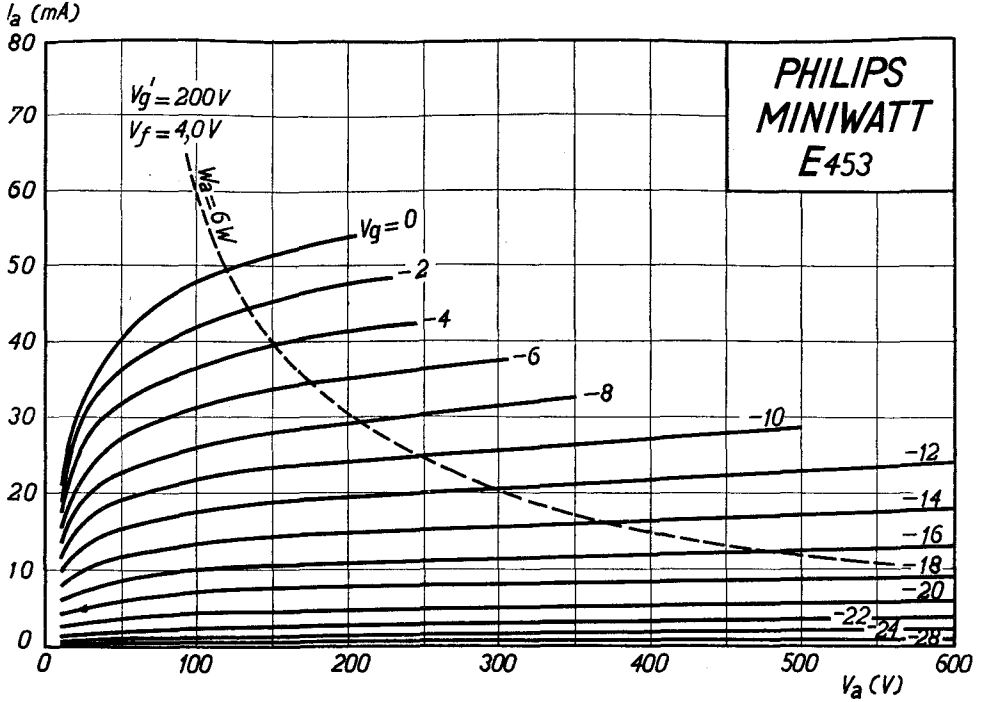
Max. Anodenspannung Tension anodique max. Max. anode voltage	V_{ao} V_{aL}	= 400 V = 250 V
Max. Anodenbelastung Dissipation anodique max. Max. anode dissipation	W_a	= 6 W
Max. Kathodenstrom Courant cathodique max. Max. cathode current	I_c	= 30 mA
Max. Schirmgitterspannung Tension de grille-écran max. Max. screen-grid voltage	$V_{g'o}$ $V_{g'}$	= 400 V = 250 V
Max. Schirmgitterbelastung Dissipation de grille-écran max. Max. screen-grid dissipation	$W_{g'}$	= 3 W
Mittlerer Schirmgitterstrom Courant de grille-écran moyen Average screen-grid current	$I_{g'}$	= 10 mA
Ungefähre Grenzw. des Schirmgitterstr. Limites approxim. du cour. de gr.-écran Approx. limits of screen-grid current	$I_{g'\,min.}$ $I_{g'\,max.}$	= 6 mA = 14 mA
Gitterstrom-Einsatzpunkt Point de commenc. du cour. de grille Starting point of grid current	V_{gi}	= —1,3 V
Max. Widerstand im Gitterkreis Résistancé max. dans le circuit de grille Max. resistance in grid circuit	R_{g1} R_{g2}	= 1 M.Ohm = 0,6 M.Ohm
Max. Spann. zwischen Faden und Kath. Tension max. entre filament et cathode Max. voltage betw. filament and cathode	V_{fc}	= 50 V
Nutzleistung Puissance utile Output	W_{o1} (V_{geff} = 6,0 V, R_a = 11000 Ohm) W_{o2} (V_{geff} = 9,5 V, R_a = 11000 Ohm)	= 1,6 W = 2,9 W
Kapazitäten Capacités Capacities	C_{ag} C_{ak} C_{gk}	= 1,2 $\mu\mu$F = 7,5 $\mu\mu$F = 7,3 $\mu\mu$F


PHILIPS
MINIWATT
E453
I_a (mA)
V_a (V)
$V_g' = 200V$
$V_f = 4{,}0V$
$W_a = 6W$
$V_g = 0$
-2
-4
-6
-8
-10
-12
-14
-16
-18
-20
-22
-24
-28
0
10
20
30
40
50
60
70
80
100
200
300
400
500
600

E 453

PHILIPS „MINIWATT"

Max. Anodenspannung	V_{ao}	= 400 V
Tension anodique max.	V_{aL}	= 300 V
Max. anode voltage		
Max. Anodenbelastung	W_a	= 6 W
Dissipation anodique max.		
Max. anode dissipation		
Max. Kathodenstrom	I_c	= 30 mA
Courant cathodique max.		
Max. cathode current		
Max. Schirmgitterspannung	$V_{g'o}$	= 400 V
Tension de grille-écran max.	$V_{g'}$	= 200 V
Max. screen-grid voltage		
Max. Schirmgitterbelastung	$W_{g'}$	= 3 W
Dissipation de grille-écran max.		
Max. screen-grid dissipation		
Mittlerer Schirmgitterstrom	$I_{g'}$	= 7 mA
Courant de grille-écran moyen		
Average screen-grid current		
Ungefähre Grenzw. des Schirmgitterstr.	$I_{g' \min.}$	= 4 mA
Limites approxim. du cour. de gr.-écran	$I_{g' \max.}$	= 12 mA
Approx. limits of screen-grid current ..		
Gitterstrom-Einsatzpunkt	V_{gi}	= —1,3 V
Point de commerc. du cour. de grille		
Starting point of grid current		
Max. Widerstand im Gitterkreis	R_{g1}	= 1 M.Ohm
Résistance max. dans le circuit de grille	R_{g2}	= 0,6 M.Ohm
Max. resistance in grid circuit		
Max. Spann. zwischen Faden und Kath.	V_{fc}	= 50 V
Tension max. entre filament et cathode		
Max. voltage betw. filament and cathode		
Nutzleistung ..... / Puissance utile ..... / Output	W_{o1} (V_{geff} = 5,3 V; R_a = 15000 Ohm)	= 1,6 W
	W_{o2} (V_{geff} = 8 V; R_a = 15000 Ohm)	= 2,8 W
Kapazitäten	C_{ag}	= 1,2 $\mu\mu$F
Capacités	C_{ak}	= 7,5 $\mu\mu$F
Capacities	C_{gk}	= 7,3 $\mu\mu$F


PHILIPS
MINIWATT
E453
$V_g' = 200V$
$V_f = 4{,}0V$
$W_a = 6W$
$V_g = 0$
-2
-4
-6
-8
-10
-12
-14
-16
-18
-20
-22
-24
-28
I_a (mA)
80
70
60
50
40
30
20
10
0
0
100
200
300
400
500
600
V_a (V)