



ELECTRONIC TUBE REFERENCE

6885

Power - Triode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

Forced-air-cooled planar triode for oscillator, amplifier, and frequency-multiplier service through approximately 3 GHz, using low-inductance cavity mounting.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 2.1 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
MAXIMUM PLATE DISSIPATION	250 W
<i>Electrical ratings/characteristics audited; additional published numeric data retained in parameter table.</i>	

The 6885 is a forced-air-cooled planar triode used as an oscillator, amplifier, or frequency multiplier at very-high and ultra-high frequencies up to 3000 MHz. Its electrode terminals are designed for low-inductance mounting in resonant cavities.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1972 Thomson CSF

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

1972 THOMSON CSF

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
The anode ca n dissipate	250	The anode ca n dissipate 250 W.
Heater voltage (L [1]	6.3 V	Heater voltage (L 6.3 5 % \
Heater voltage (L [2]	5 V	Heater voltage (L 6.3 5 % \
Heater current, approximate	2.1 A	Heater current, approximate 2.1 A
cathode-anode	0.06	cathode-anode 0.06 pF
Maximum temperature at the radiator top see curves (page	4	Maximum temperature at the radiator top see curves (page 4)
{	1	{1) In high frequency operation, the cathode is subjected to considerable back bombardment, which
DCanodevoltage covvunnrnsons [1]	1.2 V	DCanodevoltage covvunnrnsons 1.2 1.5 kV
DCanodevoltage covvunnrnsons [2]	1.5 V	DCanodevoltage covvunnrnsons 1.2 1.5 kV
DCaridvoltage¢ % . oeeienneenenennnn — [1]	-150 V	DCaridvoltage¢ % . oeeienneenenennnn —150 —150 \)
DCaridvoltage¢ % . oeeienneenenennnn — [2]	-150 V	DCaridvoltage¢ % . oeeienneenenennnn —150 —150 \)
DCcathodecurrent ccvuvenrunnn [1]	250 A	DCcathodecurrent ccvuvenrunnn 250 250 mA
DCcathodecurrent ccvuvenrunnn [2]	250 A	DCcathodecurrent ccvuvenrunnn 250 250 mA
DC grid current et e [1]	50 A	DC grid current et e 50 50 mA
DC grid current et e [2]	50 A	DC grid current et e 50 50 mA
Anode dissipation	0 W	Anode dissipation .. .00

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DCanodevoltage covuennn.n [1]	1.2 V	DCanodevoltage covuennn.n 1.2 1.2 1.2 kV
DCanodevoltage covuennn.n [2]	1.2 V	DCanodevoltage covuennn.n 1.2 1.2 1.2 kV
DCanodevoltage covuennn.n [3]	1.2 V	DCanodevoltage covuennn.n 1.2 1.2 1.2 kV
Gridbiasvoltage ([1]	4 V	Gridbiasvoltage (4) —60 —45 -30 \'
Gridbiasvoltage ([2]	-60 V	Gridbiasvoltage (4) —60 —45 -30 \'
Gridbiasvoltage ([3]	-45 V	Gridbiasvoltage (4) —60 —45 -30 \'
Gridbiasvoltage ([4]	-30 V	Gridbiasvoltage (4) —60 —45 -30 \'
DCanodecurrent ioueenvannnnn [1]	200 A	DCanodecurrent ioueenvannnnn 200 200 200 mA
DCanodecurrent ioueenvannnnn [2]	200 A	DCanodecurrent ioueenvannnnn 200 200 200 mA
DCanodecurrent ioueenvannnnn [3]	200 A	DCanodecurrent ioueenvannnnn 200 200 200 mA
DC grid current, @approX. o [1]	20 A	DC grid current, @approX. o 20 10 3 mA
DC grid current, @approX. o [2]	10 A	DC grid current, @approX. o 20 10 3 mA
DC grid current, @approX. o [3]	3 A	DC grid current, @approX. o 20 10 3 mA
{	2	{2) Without amplitude anode modulation
{	3 V	{3) With amplitude anode modulation : the indicated anode voltage is the maximum peak value.
(	4	(4) Cathode bias resistor operation
For this case, the curves (page	4 W	For this case, the curves (page 4) indicate the necessary air flow as a function of the anode dissipation with air
intake temperature ranging from [1]	20	intake temperature ranging from 20 °C to 50 °C and also the air pressure at the intake as a function of the
intake temperature ranging from [2]	50	intake temperature ranging from 20 °C to 50 °C and also the air pressure at the intake as a function of the

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
springs ; an example of such a contact is given page	5	springs ; an example of such a contact is given page 5. Depending on the structure of the circuit, the grid contact
Anode voltage [1]	12 V	Anode voltage : 1,2 kV - Anode current : 200 mA
Anode voltage [2]	200 V	Anode voltage : 1,2 kV - Anode current : 200 mA
FOR INLET AIR TEMPERATURES OF [1]	20	FOR INLET AIR TEMPERATURES OF 20°C AND 50°C
FOR INLET AIR TEMPERATURES OF [2]	50	FOR INLET AIR TEMPERATURES OF 20°C AND 50°C
Published value [1]	0.9	0.9 @ 2.1-1.9—HEATER
Published value [2]	2.1	0.9 @ 2.1-1.9—HEATER
Published value [3]	-1.9	0.9 @ 2.1-1.9—HEATER
Published value [1]	0	0] 1.3 CATHODE
Published value [2]	1.3	0] 1.3 CATHODE
l—@ [1]	23.2	l—@ 23.2-22.6 GRID
l—@ [2]	-22.6	l—@ 23.2-22.6 GRID
dans la gamme des hyperfréquences jusqu'a [1]	3 MHz	dans la gamme des hyperfréquences jusqu'a 3 000 MHz.
dans la gamme des hyperfréquences jusqu'a [2]	0 MHz	dans la gamme des hyperfréquences jusqu'a 3 000 MHz.
L'anode peut dissiper	250	L'anode peut dissiper 250 W.
Tensiondechauffage (	1 V	Tensiondechauffage (1)
Cathodegrille [1]	5	Cathodegrille 5 hud oo 14 oF
Cathodegrille [2]	14	Cathodegrille 5 hud oo 14 oF
Grille-anode e e	36	Grille-anode e e 3,6 pF
Cathode-anode ttt [1]	0	Cathode-anode ttt 0, 06 pF
Cathode-anode ttt [2]	6	Cathode-anode ttt 0, 06 pF
Pente (pour un courant anodique de [1]	150 A	Pente (pour un courant anodique de 150 mA) 25 mA/V
Pente (pour un courant anodique de [2]	25 A	Pente (pour un courant anodique de 150 mA) 25 mA/V
(	1 V	(1) En fonctionnement permanent a des fréquences élevées il est nécessaire de réduire la tension de chauffage

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Tension continued'anode [1]	1 V	Tension continued'anode 1, 2 1,5 kV
Tension continued'anode [2]	2 V	Tension continued'anode 1, 2 1,5 kV
Tension continued'anode [3]	15 V	Tension continued'anode 1, 2 1,5 kV
Tension continuedegrille [1]	150 V	Tension continuedegrille - 150 - 150 Vv
Tension continuedegrille [2]	150 V	Tension continuedegrille - 150 - 150 Vv
Courant continudecathode [1]	250 A	Courant continudecathode 250 250 mA
Courant continudecathode [2]	250 A	Courant continudecathode 250 250 mA
Courantcontinudegrille [1]	50 A	Courantcontinudegrille 50 50 mA
Courantcontinudegrille [2]	50 A	Courantcontinudegrille 50 50 mA
Puissance dissipable sur l'anode [1]	250 W	Puissance dissipable sur l'anode 250 250 w
Puissance dissipable sur l'anode [2]	250 W	Puissance dissipable sur l'anode 250 250 w
Puissance dissipablesur lagrille [1]	20 W	Puissance dissipablesur lagrille 2,0 2,0 W
Puissance dissipablesur lagrille [2]	20 W	Puissance dissipablesur lagrille 2,0 2,0 W
Fréquence coiieienrnnns [1]	1 MHz	Fréquence coiieienrnnns 1 000 1 500 3 000 MHz
Fréquence coiieienrnnns [2]	0 MHz	Fréquence coiieienrnnns 1 000 1 500 3 000 MHz
Fréquence coiieienrnnns [3]	1 MHz	Fréquence coiieienrnnns 1 000 1 500 3 000 MHz
Fréquence coiieienrnnns [4]	500 MHz	Fréquence coiieienrnnns 1 000 1 500 3 000 MHz
Fréquence coiieienrnnns [5]	3 MHz	Fréquence coiieienrnnns 1 000 1 500 3 000 MHz

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Fréquence coiieienrnnns [6]	0 MHz	Fréquence coiieienrnnns 1 000 1 500 3 000 MHz
Tension continued'anode [1]	12 V	Tension continued'anode 1,2 1,2 1,2 kV
Tension continued'anode [2]	12 V	Tension continued'anode 1,2 1,2 1,2 kV
Tension continued'anode [3]	12 V	Tension continued'anode 1,2 1,2 1,2 kV
Tension de polarisation de grille ([1]	4 V	Tension de polarisation de grille (4) -60 -45 -30 \')
Tension de polarisation de grille ([2]	-60 V	Tension de polarisation de grille (4) -60 -45 -30 \')
Tension de polarisation de grille ([3]	-45 V	Tension de polarisation de grille (4) -60 -45 -30 \')
Tension de polarisation de grille ([4]	-30 V	Tension de polarisation de grille (4) -60 -45 -30 \')
Courant continud'anode [1]	200 A	Courant continud'anode 200 200 200 mA
Courant continud'anode [2]	200 A	Courant continud'anode 200 200 200 mA
Courant continud'anode [3]	200 A	Courant continud'anode 200 200 200 mA
Courant continu de grille, environ [1]	20 A	Courant continu de grille, environ 20 10 3 mA
Courant continu de grille, environ [2]	10 A	Courant continu de grille, environ 20 10 3 mA
Courant continu de grille, environ [3]	3 A	Courant continu de grille, environ 20 10 3 mA
Puissance utile approximative a0 [1]	65 W	Puissance utile approximative a0 65 20 W
Puissance utile approximative a0 [2]	20 W	Puissance utile approximative a0 65 20 W
Le radiateur d'anode doit	8 A	Le radiateur d'anode doit 8tre refroidi par un courant d'air guidé par une canalisation qui épouse partiel-
émetteurs [1]	3 W	émetteurs 3 cavité. Les courbes {page 4) indiquent, dans ce cas, le débit dair nécessaire en fonction de la dissipation

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
émetteurs [2]	4 W	émetteurs 3 cavité. Les courbes {page 4) indiquent, dans ce cas, le débit dair nécessaire en fonction de la dissipation
Published value [1]	0	0, 3 mm par rapport a 'axe de la connexion cathode. '
Published value [2]	3	0, 3 mm par rapport a 'axe de la connexion cathode. '
Tension d'anode [1]	12 V	Tension d'anode : 1,2 kV - Courant d'anode : 200 mA
Tension d'anode [2]	200 V	Tension d'anode : 1,2 kV - Courant d'anode : 200 mA

TUBE TINKER

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