



Power Triode

used as at power amplifier and modulator and as rf power amplifier and oscillator

Cathode, Heating		Capacitances		Characteristics	
Directly heated, thoriated tungsten		Cag	= 6-3 pF	S ₁ '	= 10 mA/V
V ₁	= 10 V ± 3%	Cak	= 8-5 pF	S ₁ '	= 35
I ₁	= 10 A	Cgk	= 12-3 pF	I _{e2}	= 3.5 A

Maximum Ratings³

I	= 30	50	75	MHz
V ₁	= 3	2.5	2	kV
P ₁	= 400	400	400	W
P ₂	= 1000	800	600	W
P ₃	= 1440	1150	865	W
T ₁	= 180	180	180	°C

AF Class B Amplifier, two tubes in push-pull

Operating Characteristics

	Natural Cooling		Natural Cooling	
V _a	= 2500	3000	V	
V _g	= 57	70	V	
I _{1aa}	= 7.3	9.5	kΩ	
V _{gg pp}	= 0	0	V	400
I ₁	= 2 × 50	2 × 50	mA	2 × 372
I ₂	= 0	0	mA	2 × 55
I ₃	= 0	0	W	2 × 10
P _{1a}	= 2 × 125	2 × 150	W	2 × 1119
P ₂	= 2 × 125	2 × 150	W	2 × 294
P ₃	= 0	0	W	1650
η	= 0	0	%	73

Forced-Air Cooling

	Forced-Air Cooling		Forced-Air Cooling	
V _a	= 4000	480	V	
V _g	= 100	2 × 60	mA	
I _{1aa}	= 12	2 × 15	W	
V _{gg pp}	= 0	0	V	480
I ₁	= 2 × 50	2 × 60	mA	2 × 400
I ₂	= 0	0	mA	2 × 15
I ₃	= 0	0	W	2 × 10
P _{1a}	= 2 × 200	2 × 1600	W	2 × 1600
P ₂	= 2 × 200	2 × 400	W	2 × 400
P ₃	= 0	2400	W	2400
η	= 0	75	%	

Maximum Ratings

	Natural Cooling		Forced-Air Cooling	
V _a	= 3000	4000	V	
I ₁	= 2 × 50	2 × 60	mA	
I ₂	= 0	0	mA	
I ₃	= 0	0	W	
P _{1a}	= 2 × 125	2 × 1600	W	
P ₂	= 2 × 125	2 × 400	W	
P ₃	= 0	2400	W	
η	= 0	75	%	

V_a = 2.5 kV, I_a = 120 mA
 V_g = V_g = 300 V
 RF Telephony, Class C
 At P_a > 300 W an air flow of 1 m³/min is required

Class B Modulated RF Power Amplifier

Operating Characteristics

	Natural Cooling		Forced-Air Cooling
	30	3000	
f	=	=	30 MHz
V _a	=	2500	4000 V
-V _g	=	60	120 V
V _g p	=	80	120 V
I _a	=	150	150 V
P _{ia}	=	375	600 W
P _a	=	250	375 W
P _o	=	125	225 W
η	=	33	37 %
m	=	100	100 %
I _g	=	2	2 mA
P _{ip}	=	10	14 W

Maximum Ratings

f	=	75	75 MHz
V _a	=	3000	4000 V
I _a	=	400	400 mA
P _{ia}	=	450	600 W
P _a	=	300	400 W
P _g	=	30	30 W

RF Class C Anode Modulation

Operating Characteristics

	Natural Cooling		Forced-Air Cooling
	30	2500	
f	=	=	30 MHz
V _a	=	2000	3000 V
-V _g	=	300	300 V
V _g p	=	460	490 V
I _a	=	375	415 mA
I _g	=	75	85 mA
P _i	=	30	37 W
P _{ia}	=	750	835 W
P _a	=	200	245 W
P _o	=	550	635 W
η	=	73	80 %
m	=	100	100 %
P _{mod}	=	325	420 W

Maximum Ratings

f	=	75	75 MHz
V _a	=	2500	3000 V
-V _g	=	400	450 mA
I _a	=	75	100 mA
P _{ia}	=	835	1250 W
P _a	=	200	270 W
P _g	=	30	30 W

RF Class C Telegraphy

Operating Characteristics

	Natural Cooling		Forced-Air Cooling
	30	3000	
f	=	=	30 MHz
V _a	=	2500	4000 V
-V _g	=	200	200 V
V _g p	=	390	375 V
I _a	=	475	450 mA
I _g	=	65	75 mA
P _i	=	25	26 W
P _{ia}	=	1190	1800 W
P _a	=	265	360 W
P _o	=	925	1440 W
η	=	78	80 %

Maximum Ratings

f	=	75	75 MHz
V _a	=	3000	4000 V
I _a	=	500	500 mA
P _{ia}	=	500	500 mA
P _a	=	75	100 mA
P _o	=	1250	1800 W
P _g	=	300	400 W
η	=	30	30 W

Mounting Position

Vertical, filament end up or down

Mass

6.45 kg

Base

Special

a

g

f

Dimensions in mm



