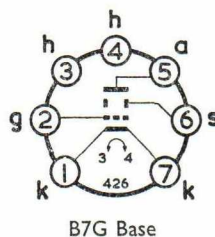


V.H.F. FRAME GRID TRIODE



GENERAL

This valve is a high slope, frame grid triode with low anode to grid capacitance for use as an R.F. amplifier in V.H.F. television tuners. The low anode to grid capacitance simplifies the problems of neutralising, and is achieved by specially shaped anodes and an internal shield.

Heater Current	I_h	0.3	A
Heater Voltage	V_h	4.5	V

RATINGS

Maximum Anode Dissipation	$P_a(\max)$	2.2	W
Maximum Anode Supply Voltage	$V_{a(b)\max}$	550	V
Maximum Anode Voltage	$V_a(\max)$	200	V
Maximum Negative Grid Voltage	$-V_g(\max)$	50	V
Maximum Heater to Cathode Voltage	$V_{h-k}(\max)$	100	V
Maximum Cathode Current	$I_k(\max)$	20	mA
Maximum Grid to Cathode Resistance	$R_{g1-k}(\max)$	1.0	MΩ

INTER-ELECTRODE CAPACITANCES

		*	†	
Anode to Grid	C_{a-g}	0.48	0.5	pF
Grid to Cathode	C_{g-k}	3.2	3.2	pF
Anode to Cathode	C_{a-k}	0.21	0.25	pF
Grid to Cathode, Heater and Shield	$C_{g-k,h,s}$	5.0	5.0	pF
Anode to Cathode, Heater and Shield	$C_{a-k,h,s}$	4.2	3.3	pF
Grid to Heater	C_{g-h}	0.28	0.28	pF
Cathode to Heater	C_{k-h}	2.5	2.5	pF

* With shield.

† Without shield.

CHARACTERISTICS

Anode Voltage	V_a	135	V
Grid Voltage	V_g	-1.0	V
Anode Current	I_a	11	mA
Amplification Factor	μ	65	
Mutual Conductance	g_m	13	mA/V
Valve Anode Resistance ($\partial v_a / \partial i_a$)	r_a	5.0	kΩ
Grid Voltage for g_m reduction 20 : 1	$V_{g(gm/20)}$	-3.1	V
Grid Voltage for g_m reduction 100 : 1	$V_{g(gm/100)}$	-5.0	V
Grid Voltage for $I_a = 100 \mu A$	$V_{g(I_a = 100 \mu A)}$	-5.0	V

TYPICAL OPERATION

Supply Voltage	V_b	135	135	135	135	200	200	200	200	V
Anode Load Resistance	R_a	1.0	1.0	2.2	2.2	5.6	5.6	6.8	6.8	k Ω
Cathode Resistance	R_k	82	0	0	0	82	0	0	0	Ω
Grid Resistance	R_g	0	1.0	0.22	1.0	0	1.0	0.22	0.56	M Ω
Grid to Anode Resistance	R_{g-a}	—	—	22	22	—	—	22	22	M Ω
Anode Current	I_a	10.5	13	14	14	12	13	14	14	mA
Mutual Conductance	g_m	13	15.5	16	16	14	15.5	16	16	mA/V
Grid Voltage for g_m reduction 100 : 1		-5.0	-4.8	-6.0	-11	-7.5	-7.3	-9.0	-12.5	V

