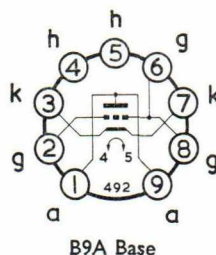


U.H.F. TRIODE



B9A Base

GENERAL

This frame grid triode is for use as a grounded grid U.H.F. oscillator and mixer for bands IV and V.

Heater Current	I_h 0.3	A
Heater Voltage	V_h 3.8	V

RATINGS

Maximum Anode Dissipation	$P_a(\text{max})$	2.2	W
Maximum Anode Supply Voltage	$V_{a(b)\text{max}}$	550	V
Maximum Anode Voltage	$V_a(\text{max})$	220	V
Maximum Negative Grid Voltage	$-V_{g(\text{max})}$	50	V
Maximum Heater to Cathode Voltage (R.M.S.)	$V_{h-k(\text{r.m.s.})\text{max}}$	90	V
Maximum Cathode Current	$I_k(\text{max})$	20	mA
Maximum Grid to Cathode Resistance	$R_{g-k(\text{max})}$	1.0	MΩ

INTER-ELECTRODE CAPACITANCES

		*	†	
Anode to Grid	C_{a-g}	2.2		pF
Anode to Cathode	C_{a-k}	0.24		pF
Grid to Cathode	C_{g-k}	3.5		pF
Grid to Heater	C_{g-h}	0.3		pF
Cathode to Grid, Heater	$C_{k-g,h}$	6.3		pF
Grid to Cathode, Heater	$C_{g-k,h}$	3.8		pF
Anode to Cathode, Heater	$C_{a-k,h}$	0.35		pF
Anode to Grid, Heater	$C_{a-g,h}$	2.3		pF
Anode to Grid, Shield	$C_{a-g,s}$		3.3	pF
Cathode, Heater to Grid, Shield	$C_{k,h-g,s}$		4.1	pF
Anode to Cathode, Heater	$C_{a-k,h}$		0.3	pF

* In fully shielded socket without can (I.E.C. Publication 100).

† In fully shielded socket with can (I.E.C. Publication 100).

CHARACTERISTICS

Anode Voltage	V_a	175	V
Grid Voltage	V_g	-1.5	V
Anode Current	I_a	12	mA
Mutual Conductance	g_m	14	mA/V
Valve Anode Resistance ($\partial V_a / \partial I_a$)	r_a	4.85	kΩ
Amplification Factor	μ	68	
Equivalent Grid Noise Resistance	R_{eq}	230	Ω

TYPICAL OPERATION—As a Self-Oscillating Mixer

		‡	§	
Anode Supply Voltage	$V_{a(b)}$	220	220	V
Anode Resistance	R_a	5.6	5.6	kΩ
Grid Resistance	R_g	—	47	kΩ
Cathode Bias Resistance	R_{k}	220	—	Ω
Anode Current	I_a	12	12	mA
Grid Current	I_g	—	50	μA
Conversion Conductance	g_c	5.5	5.5	mA/V

‡ Cathode self bias § Grid current bias

