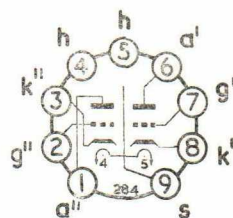


DOUBLE TRIODE



B9A Base

GENERAL

This valve is a double triode primarily intended for use as an R.F. amplifier and self-oscillating mixer in F.M. receivers.

Heater Voltage	V_h	6.3 V
Heater Current	I_h	0.435 A

RATINGS

Maximum Anode Dissipation (either section)	$P_{a(max)}$	2.5	W
Maximum Total Anode Dissipation	$P_{a(tot)max}$	4.5	W
Maximum Anode Voltage	$V_{a(max)}$	300	V
Maximum Heater to Cathode Voltage (D.C.)	$V_{h-k(max)}$	90	V
Maximum Cathode Current	$I_{k(max)}$	15	mA
Maximum Grid to Cathode Resistance	$R_{g-k(max)}$	1	MΩ

INTER-ELECTRODE CAPACITANCES

		*	†	§	
Grid' to Cathode', Heater, Shield	$C_{g'-k',h,s}$	2.8	3.1	4.0	pF
Grid'' to Cathode'', Heater, Shield	$C_{g''-k'',h,s}$	2.8	3.2	4.0	pF
Anode' to Cathode', Heater, Shield	$C_{a'-k',h,s}$	1.2	1.6	2.5	pF
Anode' to Cathode'', Heater, Shield†	$C_{a'-k'',h,s}$	1.8	1.9	2.7	pF
Anode'' to Cathode', Heater, Shield	$C_{a''-k',h,s}$	1.15	1.6	2.4	pF
Anode'' to Cathode'', Heater, Shield†	$C_{a''-k'',h,s}$	1.8	2.0	2.7	pF
Anode' to Grid'	$C_{a'-g'}$	1.5	1.6	1.8	pF
Anode'' to Grid''	$C_{a''-g''}$	1.5	1.6	1.6	pF
Anode' to Anode''	$C_{a'-a''}$	0.028	0.032	0.033	pF
Anode' to Anode'†	$C_{a'-a'}$	0.003	0.0067	0.0081	pF
Anode'' to Cathode'	$C_{a''-k'}$	0.006	0.014	0.02	pF

† Measured with can.

* In fully shielded socket. Without can, except where stated otherwise.

† With holder capacitance balanced out (holder as below).

§ Total capacitance including, where applicable, Plessey B9A ceramic type holders CP180900/1 (without can) or CP180024/3 (with can).

TYPICAL OPERATION AS R.F. AMPLIFIER

Supply Voltage	V_b	250	V
Anode Voltage	V_a	230	V
Anode Current	I_a	10	mA
Anode Load Resistance	R_a	1.8	k Ω
Grid Bias Voltage	V_g	-2	V
Mutual Conductance	g_m	6	mA/V
Valve Anode Resistance ($\delta V_a / \delta I_a$)	r_a	9.7	k Ω
Amplification Factor	μ	58	
Input Loss at 100 Mc/s		6	k Ω
Equivalent Grid Noise Resistance	R_{eq}	500	Ω

TYPICAL OPERATION AS SELF-OSCILLATING MIXER

Supply Voltage	V_b	250	V
Anode Load Resistance	R_a	12	k Ω
Grid to Cathode Resistance	R_{g-k}	1	M Ω
Anode Current	I_a	5.2	mA
Peak Heterodyne Voltage	$V_{(pk)het}$	3.3	V
Conversion Conductance	g_c	2.3	mA/V
Valve Anode Resistance ($\delta V_a / \delta I_a$)	r_a	22	k Ω

MOUNTING POSITION—Unrestricted.

