Twin Dual-Control Pentodes

9-PIN MINIATURE TYPE

COMMON-CATHODE, GRID No.1 & GRID No.2 · DARK HEATER

For Combined Color Demodulator and Matrix Amplifier Applications in Color TV Receivers Having High-Level Demodulation Systems

ELECTRICAL CHARACTERISTICS

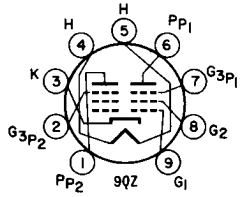
		Bogey Values	
Heater Voltage, AC or DC	E_f	6.3	V
Heater Current	I_f	760	mA
Direct Interelectrode Capacitances			
Without external shield			
G3 to P (each unit, with other unit connected to ground)	C_{g3-p}	2.7	pF
G1 to (K, P_{P2}, P_{P1}, $G3_{P2}$, $G3_{P1}$, G2, H)	C_{g1-all}	15.5	pF
$G3_{P1}$ to (K, P_{P2}, P_{P1}, $G3_{P2}$, G2, G1, H)	C_{g3-all}	6.0	pF
$G3_{P2}$ to (K, P_{P2}, P_{P1}, $G3_{P1}$, G2, G1, H)			
P_{P1} to (K, P_{P2}, $G3_{P2}$, $G3_{P1}$, G2, G1, H)	C_{p-all}	3.7	pF
P_{P2} to (K, P_{P1}, $G3_{P2}$, $G3_{P1}$, G2, G1, H)			
$G3_{P1}$ to $G3_{P2}$	C_{g3-g3}	0.10	pF
For the following characteristics, with both units operating, see **Conditions**			
Plate Resistance, Approx., each unit	r_p	50000	Ω
Grid-No.1-to-Plate Transconductance, Each unit	$g_{m(g1p)}$	5800	μmhos
Grid-No.3-to-Plate Transconductance, Each unit	$g_{m(g3p)}$	350	μmhos
DC Plate Current, Each unit	I_b	7.6	mA
DC Grid-No.2 Current[a]	I_{c2}	14.5	mA
Cutoff DC Grid-No.1 Voltage, Approx., each unit, For I_b = 100 μA	$E_{c1(co)}$	-6.3	V
Cutoff DC Grid-No.3 Voltage[b], Approx., each unit, For I_b = 100 μA	$E_{c3(co)}$	-16.5	V
	Conditions		
Heater Voltage	E_f	6.3	V
DC Plate Voltage, Each unit	E_b	100	V
DC Grid-No.3 (Control-Grid) Voltage, Each unit	E_{c3}	0	V
DC Grid-No.2 (Screen-Grid) Voltage	E_{c2}	100	V
DC Grid-No.1 (Control-Grid) Voltage	E_{c1}	-2.5	V

MECHANICAL CHARACTERISTICS

Operating Position	Any
Type of Cathode	Coated Unipotential
Maximum Overall Length	3-1/16 in
Maximum Seated Length	3-13/16 in
Length, Base Seat to Bulb Top, Excluding tip	2-7/16 ± 3/32 in
Diameter	0.750 to 0.875 in
Envelope	JEDEC T6-1/2
Dimensional Outline (JEDEC 6-4)	See *General Section*
Base	Small-Button Noval 9-Pin (JEDEC E9-1)

TERMINAL DIAGRAM (Bottom View)

Pin 1 – Plate of Unit No.2
Pin 2 – Grid No.3 of Unit No.2
Pin 3 – Cathode
Pin 4 – Heater
Pin 5 – Heater
Pin 6 – Plate of Unit No.1
Pin 7 – Grid No.3 of Unit No.1
Pin 8 – Grid No.2
Pin 9 – Grid No.1



DESIGN MAXIMUM RATINGS

DC Plate Voltage (Each unit)	E_b	300	V
DC Grid-No.2 Voltage	E_{c2}	150	V
Heater-Cathode Voltage			
Peak	e_{hkm}	+200 -300	V V
Average[c]	$E_{hk(av)}$	100	V
Heater Voltage, AC or DC	E_f	5.7 to 6.9	V
Grid-No.2 Input	P_{g2}	2	W
Plate Dissipation (Each unit)	P_b	2	W

[a] Units in parallel (P_{P1} connected to P_{P2}; $G3_{P1}$ connected to $G3_{P2}$).

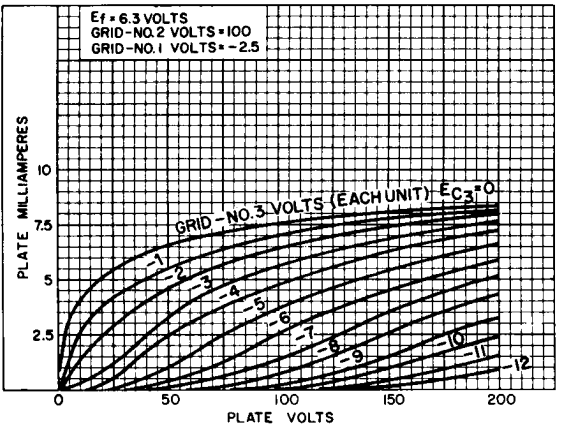
[b] For this test, E_{c1} = -3 V so that the Grid-No.2 Input rating will not be exceeded.

[c] Measured with a dc meter.

RADIO CORPORATION OF AMERICA
Electronic Components and Devices Harrison, N. J.

Typical Plate Characteristics

Each Unit, with Both Units Operating



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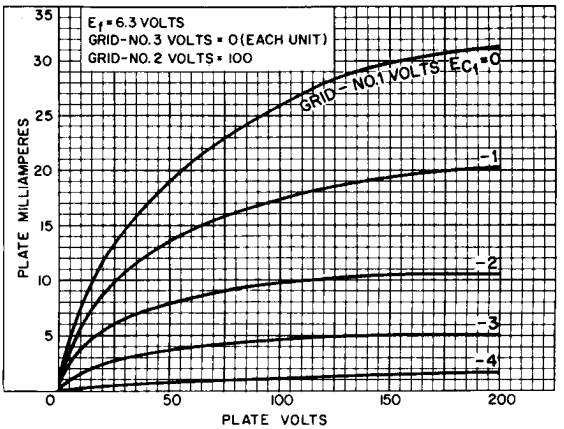
Typical Plate Characteristics

Each Unit, with Both Units Operating



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