

Beam Power Tube

Pb = 30 W Novar Type Overload Pb = 200 W
 For Color-TV Horizontal-Deflection Amplifier Circuits
 Using 270 V to over 400 V "B" Supplies

ELECTRICAL CHARACTERISTICS—Bogey Values

Heater Voltage, ac or dc	E_h	6.3	V
Heater Current	I_h	2.5	A
Direct Interelectrode Capacitances: ^a			
Grid No.1 to plate	c_{g1-p}	0.56	pF
Input: G1 to (K,G3,G2,H)	c_i	22	pF
Output: P to (K,G3,G2,H)	c_o	11	pF

For the following characteristics, see Conditions below:

Amplification Factor, (Triode Connection) ^b , μ	-	-	3 ^c	-	-	2.8 ^d	
Plate Resistance (Approx.)	r_p	-	5800	-	-	7000 Ω	
Transconductance	g_m	-	9600	-	-	7500 μmho	
DC Plate Current	I_b	-	580 ^e	130	-	710 ^e 95 mA	
DC Grid-No.2 Current	I_{c2}	-	40 ^e	2.8	-	55 ^e 2.4 mA	
Cutoff DC Grid-No.1 Voltage for $I_b = 1 \text{ mA}$	$E_{c1(\text{co})}$	-120	-	-54	-125	-	-60 V

Conditions:

Heater Voltage	E_h	←		6.3	→		V	
Peak Positive-Pulse Plate Voltage ^f	e_{bm}	5000	-	-	5000	-	-	V
DC Plate Voltage	E_b	-	55	175	-	60	175	V
DC Grid-No.3 Voltage	E_{c3}	30	30	30	30	30	30	V
DC Grid-No.2 Voltage	E_{c2}	125	125	125	145	145	145	V
DC Grid-No.1 Voltage	E_{c1}	-	0	-25	-	0	-35	V

MECHANICAL CHARACTERISTICS

Dimensional Outline	JEDEC No.12-117
Envelope	JEDEC Designation T12
Top Cap ^g	Small (JEDEC Designation C1-1)
Base ^h	Large-Button Novar 9-Pin with Exhaust Tip (JEDEC Designation E9-88)

6LQ6

Terminal Connections

(See *TERMINAL DIAGRAM*) JEDEC Designation 9QL
 Type of Cathode Coated Unipotential

MAXIMUM RATINGS—Design-Maximum Values^k

For operation as a Horizontal-Deflection-Amplifier Tube in a 525-line, 30-frame system

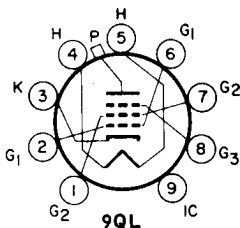
DC Plate Supply Voltage	E_{bb}	990	V
Peak Positive-Pulse Plate Voltage ^m	e_{bm}	7500	V
Peak Negative-Pulse Plate Voltage	$-e_{bm}$	1100	V
DC Grid-No.3 Voltage ⁿ	E_{c3}	75	V
DC Grid-No.2 (Screen-Grid) Voltage	E_{c2}	220	V
Peak Negative-Pulse Grid-No.1 (Control-Grid) Voltage	$-e_{c1m}$	330	V
Heater-Cathode Voltage:			
Peak	e_{hkm}	±200	V
Average	E_{hk}	100	V
Heater Voltage, ac or dc	E_h	5.7 to 6.9	V
Cathode Current:			
Peak	i_{km}	1200	mA
Average	$I_{k(av)}$	350	mA
Grid-No.2 Input	P_{g2}	5	W
Plate Dissipation ^p	P_b	30	W
Temporary Overload Plate Dissipation ^q	P_b	200	W
Envelope Temperature (at hottest point on envelope surface).	T_E	250	°C

MAXIMUM CIRCUIT VALUES

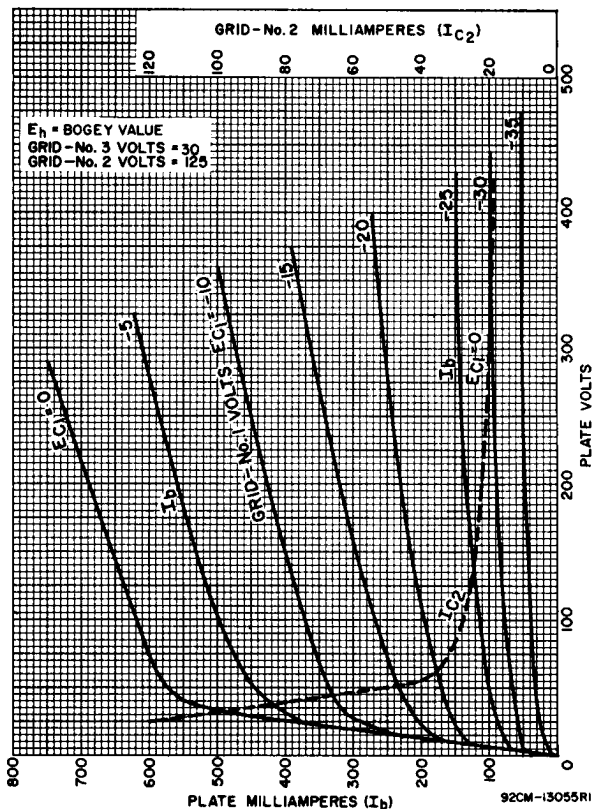
Grid-No.1-Circuit Resistance:	$R_{g1(ckt)}$		
For grid-No.1-resistor-bias operation	-	0.47	$M\Omega$
For plate-pulsed operation (horizontal-deflection circuits only)	-	10	$M\Omega$

TERMINAL DIAGRAM (Bottom View)

- Pin 1 - Grid No.2
- Pin 2 - Grid No.1
- Pin 3 - Cathode
- Pin 4 - Heater
- Pin 5 - Heater
- Pin 6 - Grid No.1
- Pin 7 - Grid No.2
- Pin 8 - Grid No.3
- Pin 9 - Do Not Use
- Top Cap - Plate



TYPICAL CHARACTERISTICS



- a Measured without external shield in accordance with the current issue of EIA Standard RS-191.
- b With grid No.3 and grid No.2 connected, respectively, to cathode and plate at socket.
- c Conditions: $E_b = E_{C2} = 125$ V, $E_{C1} = -25$ V.
- d Conditions: $E_b = E_{C2} = 145$ V, $E_{C1} = -35$ V.
- e This value can be measured by a method involving a recurrent waveform such that the Maximum Ratings of the tube will not be exceeded.
- f Under pulse-duration condition specified in Footnote m.

