

Dual Triode With High-Mu Unit and Low-Mu Unit

DUODECAR TYPE

Electrical:

Heater Characteristics and Ratings:

Voltage (AC or DC)	6.3 ± 0.6 volts
Current at 6.3 volts	1.050 amp
Maximum heater-cathode voltage (Each unit):	
Heater negative with respect to cathode:	
Peak	200 volts
Heater positive with respect to cathode:	
Peak	200 volts
DC component	100 volts

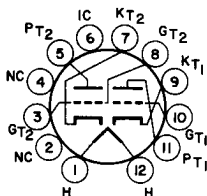
Direct Interelectrode Capacitances (Approx.):^a

	Unit No. 1	Unit No. 2	
Grid to plate	4.0	7.0	pf
Input: G to (K, H)	2.4	7.0	pf
Output: P to (K, H)	0.4	1.1	pf

Mechanical:

Operating Position	Any
Type of Cathodes	Coated Unipotential
Maximum Overall Length	2.375"
Seated Length	1.750" to 2.000"
Diameter	1.062" to 1.188"
Dimensional Outline (JEDEC 9-58)	See <i>General Section</i>
Bulb	T9
Base	Small-Button Duodecar 12-Pin (JEDEC No. E12-70)
Basing Designation for BOTTOM VIEW	12EJ

- Pin 1-Heater
- Pin 2-No Internal Connection
- Pin 3-Grid of Unit No. 2
- Pin 4-No Internal Connection
- Pin 5-Plate of Unit No. 2
- Pin 6-Do Not Use
- Pin 7-Cathode of Unit No. 2
- Pin 8-Grid of Unit No. 2
- Pin 9-Cathode of Unit No. 1
- Pin 10-Grid of Unit No. 1
- Pin 11-Plate of Unit No. 1
- Pin 12-Heater



Characteristics, Class A₁ Amplifier:

	Unit No. 1	Unit No. 2	
Plate Voltage	250	60	175 volts
Grid Voltage	-3	0 ^b	-25 volts
Amplification Factor	66	-	5.5
Plate Resistance (Approx.)	30000	-	920 ohms
Transconductance	2200	-	6000 μmhos
Plate Current	2	95	40 ma
Grid-Voltage (Approx.) for plate:			
μ _a = 20	-5.3	-	- volts
μ _a = 200	-	-	-45 volts



VERTICAL DEFLECTION OSCILLATOR AND AMPLIFIER

Maximum Ratings, Design-Maximum Values:

For operation in a 525-line, 30-frame system

	Unit No.1 (Oscillator)	Unit No.2 (Amplifier)	
DC Plate Voltage	350	550	volts
Peak Positive-Pulse Plate Voltage	-	1500 ^c	volts
Peak Negative Pulse-Grid Voltage	400	250	volts
Cathode Current:			
Peak	-	175	ma
Average	-	50	ma
Plate Dissipation	1	10 ^d	watts

Maximum Circuit Values:

Grid-Circuit Resistance:

For fixed-bias operation .	1	1	megohm
For cathode-bias operation	2.2	2.2	megohms

^a Without external shield.^b Applied for short interval (2 seconds maximum) so as not to damage tube.^c This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent of one vertical scanning cycle is 2.5 milliseconds.^d An adequate bias resistor or other means is required to protect the tube in the absence of excitation.