6FM7

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

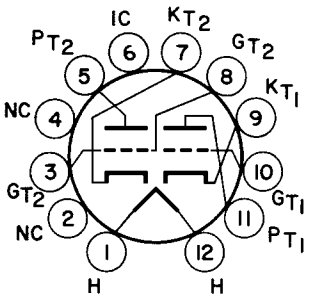
Direct Interelectrode Capacitances (Approx.):[a]

	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 *General Section*
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 A$_1$ 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:				
μa = 20	-5.3	-	-	volts
μa = 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.