UHF TRIODE TYPES 2DX4, 3DX4 AND 6DX4

The 2DX4, 3DX4 and 6DX4 are miniature 7-pin triodes designed for local oscillator service in television receivers which operate in the ultra-high-frequency region. Internal lead inductance is reduced by employing double connections to the plate and grid.

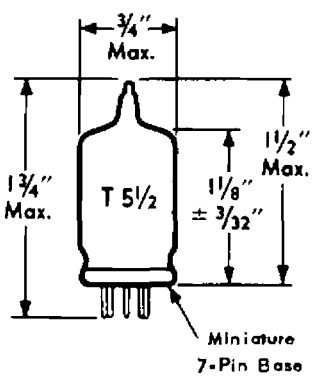
The 2DX4 and 3DX4 have been designed for use in receivers which employ series connected heaters, especially in television receivers where the picture-tube heater is in series with other heaters. When each is employed in this type of circuit with other tubes similarly designed having the same heater current rating, heater voltage surges across individual tubes are minimized inasmuch as heater warm-up characteristic is controlled.

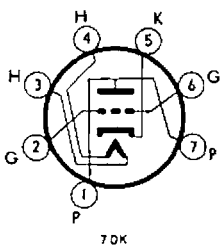
ELECTRICAL

Cathode			Coated Unipotential	
Heater:	2DX4	3DX4	6DX4	
Voltage (ac or dc)	2.4	3.0	6.3 ± 0.6	Volts
Current	0.6 ± 0.040	0.45 ± 0.030	0.20	Ampere
Warm-Up Time (Note 1)	11	11	–	Seconds
Direct Interelectrode Capacitances:		Shielded	Unshielded	
Grid to Plate		1.6	1.6	μμf
Input		3.9	3.7	μμf
Output		1.5	0.38	μμf
Plate to Cathode		0.18	0.20	μμf
Grid to Cathode		3.6	3.6	μμf
Heater to Cathode		3.4	3.4	μμf

MECHANICAL

Bulb	T-5-1/2
Base	Miniature 7-Pin (JEDEC E7-1)
Basing	7DK
Mounting Position	Any
Outline	5-1





UHF OSCILLATOR SERVICE

MAXIMUM RATINGS

Design Maximum Values

DC Plate Voltage	150	max.	Volts
DC Grid Voltage	–50	max.	Volts
DC Grid Current	2	max.	Ma.
Plate Dissipation	2.2	max.	Watts
DC Cathode Current	20	max.	Ma.
Heater-Cathode Voltage:			
Heater Negative with Respect to Cathode:			
Total DC + Peak	100	max.	Volts
Heater Positive with Respect to Cathode:			
DC Component	50	max.	Volts
Total DC + Peak	100	max.	Volts

TYPICAL OPERATION at 1000 Mc: (Note 2)

Plate Supply Voltage	100	Volts
Plate Resistor	220	Ohms
Grid Resistor	10000	Ohms
Plate Current	14	Ma.
Grid Current	250	μamp

CHARACTERISTICS

Plate Voltage	85	Volts
Cathode Bias Resistor	150	Ohms
Amplification Factor	30	–
Plate Resistance	2700	Ohms
Transconductance	11000	μmhos
Plate Current	10	Ma.

NOTES

1. Heater warm-up time is defined as the time required for the voltage across the heater to reach 80% of its rated value after applying four times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three times rated heater voltage divided by rated heater current.
2. Measured in JEDEC standard UHF oscillator No. 400.

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from JEDEC release #4105, Jan. 28, 1963