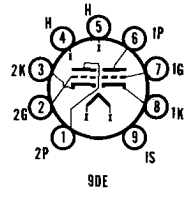
RF AMPLIFIER or OSCILLATOR and MIXER

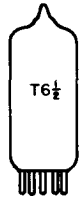
6DT8
12DT8

High Mu Twin Triode

Construction .....Miniature T-6½
Base .....Button 9 Pin, E9-1
Basing[1] 9DE
Outline 6-2
Maximum Diameter .....0.875 In.
Maximum Seated Height .....1.937 In.
Maximum Overall Height .....2.187 In.



9DE



ELECTRICAL DATA

HEATER OPERATION

	12DT8	6DT8
Heater Voltage	12.6	6.3 Volts
Heater Current	150	300 Ma
Maximum Heater-Cathode Voltage		
Heater Negative with Respect to Cathode		
Total DC and Peak		200 Volts
Heater Positive with Respect to Cathode		
DC		100 Volts
Total DC and Peak		200 Volts

DIRECT INTERELECTRODE CAPACITANCES (Shielded)

	Section No. 1[1]	Section No. 2
Grid to Plate	1.6	1.6 Pf
Input: g to (k + h + IS)	2.7	2.7 Pf
Output: p to (k + h + IS)	1.6	1.6 Pf
Heater to Cathode	3.0	3.0 Pf
Grounded Grid Operation		
Input: k to (g + h + IS)		5.3 Pf
Output: p to (g + h + IS)		2.8 Pf

RATINGS (Design Center Rating System)

Plate Voltage (Max.)	300 Volts
Plate Dissipation (Max.)	2.5 Watts
Negative Grid Voltage (Max.)	50 Volts
Grid Circuit Resistance	
Fixed Bias (Max.)	0.25 Megohm
Self Bias (Max.)	1.0 Megohms

CHARACTERISTICS AND TYPICAL OPERATION

Class A1 Amplifier—Each Section

Plate Voltage	100	250 Volts
Cathode Bias Resistor	270	200 Ohms
Plate Current	3.7	10.0 Ma
Transconductance	4000	5500 μmhos
Amplification Factor	60	60
Plate Resistance	15,000	10,900 Ohms
Ec for Ib = 10 μa (Approx.)	-5	-12 Volts

NOTES:
(1) Section No. 1 connects to Pins 6, 7, and 8.
(2) An internal shield is connected to Pin No. 9 to provide isolation between the two sections.

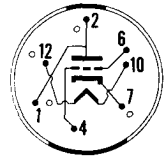
Color Television Type

UHF OSCILLATOR

6DV4
2DV4

Medium Mu Triode

Construction .....Nuvistor, Metal
Base..Ceramic Wafer, Twelvar 7 Pin, E7-83
Basing 12EA
Outline
Maximum Diameter .....0.440 In.
Maximum Seated Height .....0.625 In.
Maximum Overall Height .....0.800 In.



12EA

ELECTRICAL DATA

HEATER OPERATION

	2DV4	6DV4
Heater Voltage	2.1	6.3 Volts
Heater Current	450	135 Ma
Heater Warm-up Time	8	— Seconds
Maximum Heater-Cathode Voltage	—	100 Volts

DIRECT INTERELECTRODE CAPACITANCES

Grid to Plate	1.8 Pf
Grid to Cathode, Heater, and Shell	4.4 Pf
Plate to Cathode, Heater, and Shell	1.9 Pf
Plate to Cathode	0.25 Pf
Heater to Cathode	1.4 Pf
Grid to Cathode	3.7 Pf

RATINGS (Design Maximum Rating System)

Class A1 Amplifier

Plate Supply Voltage (Max.)(1)	300 Volts
Plate Voltage (Max.)	125 Volts
Grid Voltage	
Negative Bias (Max.)	-55 Volts
Peak Positive Bias (Max.)	2 Volts
Plate Dissipation (Max.)	1 Watt
Cathode Current (Max.)	15 Ma
Grid Circuit Resistance(2)	
Fixed Bias (Max.)	0.1 Megohm
Cathode Bias (Max.)	0.2 Megohm

CHARACTERISTICS AND TYPICAL OPERATION

Plate Supply Voltage	75 Volts
Cathode Bias Resistor	100 Ohms
Amplification Factor	35
Plate Resistance (Approx.)	3100 Ohms
Transconductance	11,500 μmhos
Grid Voltage for Ib = 10 μa	-7 Volts
Plate Current	10.5 Ma

Oscillator at 950 MHz

Plate Voltage	60 Volts
Grid Voltage	-2 Volts
Grid Resistor	5600 Ohms
Plate Current	8 Ma
Grid Current	350 μa

NOTES:

(1) A plate supply voltage of 300 volts may be used provided that a sufficiently large resistor is used in the plate circuit to limit the plate dissipation to one watt under any condition of operation.

(2) For operation at shell temperatures up to 135° C.

6DW4A

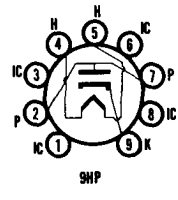
12DW4A, 17DW4A

Color Television Type

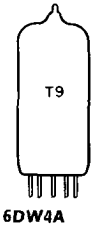
DAMPER

Heater-Cathode Diode

Construction .....Novar T-9
Base .....Novar Button 9 Pin, E9-75
Basing(1) 9HP
Outline
Maximum Diameter .....1.188 In.
Maximum Seated Height .....3.030 In.
Maximum Overall Height .....3.410 In.



9HP



ELECTRICAL DATA

HEATER OPERATION

	17DW4A	12DW4A	6DW4A
Heater Voltage	16.8	12.6	6.3 Volts
Heater Current	450	600	1200 Ma
Heater Warm-up Time	11	11	— Seconds
Maximum Heater-Cathode Voltage			
Heater Negative with Respect to Cathode			
DC			900 Volts
Total DC and Peak			5500 Volts
Heater Positive with Respect to Cathode			
DC			100 Volts
Total DC and Peak			300 Volts