

Plate Dissipation (Max.)	1 Watt
DC Cathode Current (Max.)	15 Ma
Negative Grid Voltage (Max.)	55 Volts
Positive Grid Voltage (Max.)	0 Volt
Grid Circuit Resistance	
Fixed Bias (Max.)	0.5 Megohm
Self Bias (Max.)	2.2 Megohm

CHARACTERISTICS AND TYPICAL OPERATION

Class A1 Amplifier

Plate Voltage	70	110 Volts
Grid Resistor	47,000	— Ohms
Cathode Resistor	—	130 Ohms
Plate Current	7	6.5 Ma
Transconductance	12,500	9000 μ mhos
Amplification Factor	68	63
Plate Resistance (Approx.)	5440	7000 Ohms
Ec for Ib = 100 μ a (Approx.)	—	-5 Volts
Ec for Ib = 10 μ a (Approx.)	—	-6.8 Volts

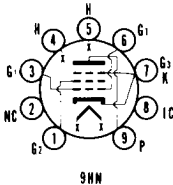
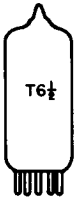
**VERTICAL DEFLECTION
AMPLIFIER**

6DT5

12DT5, 25DT5

Beam Power Pentode

Construction	Miniature T-6½
Base	Button 9 Pin, E9-1
Basing	9HN
Outline	6-3
Maximum Diameter	0.875 In.
Maximum Seated Height	2.375 In.
Maximum Overall Height	2.625 In.



ELECTRICAL DATA

HEATER OPERATION

	25DT5	12DT5	6DT5
Heater Voltage	25	12.6	6.3 Volts
Heater Current	300	600	1200 Ma
Heater Warm-up Time	11	11	— Seconds
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 (Unshielded)

Grid No. 1 to Plate	0.57 Pf
Input: g1 to (h + k)	12.5 Pf
Output: p to (h + k)	4.9 Pf

RATINGS (Design Maximum Rating System)

Vertical Deflection Amplifier⁽¹⁾

Plate Voltage (Max.)	315 Volts
Grid No. 2 Voltage (Max.)	285 Volts
Peak Positive Pulse Plate Voltage (Abs. Max.)	2200 Volts
Peak Negative Pulse Grid Voltage (Max.)	250 Volts
Plate Dissipation (Max.) ⁽²⁾	9.0 Watts
Grid No. 2 Dissipation (Max.) ⁽²⁾	2.0 Watts
Average Cathode Current (Max.)	55 Ma
Peak Cathode Current (Max.)	190 Ma
Grid Circuit Resistance	
Fixed Bias (Max.)	0.5 Megohm
Cathode Bias (Max.)	1.0 Megohm

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage	250 Volts
Grid No. 2 Voltage	250 Volts
Grid No. 1 Voltage	-16.5 Volts
Plate Current	38 Ma
Grid No. 2 Current	2.0 Ma
Transconductance	6200 μ mhos
Ec1 for Ib = 100 μ a (Approx.)	-35 Volts

INSTANTANEOUS PLATE KNEE VALUESZero Bias: With $E_b = 60$ V and $E_c2 = 150$ V

Plate Current	100 Ma
Grid No. 2 Current	15 Ma

NOTES:

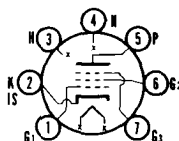
- (1) For operation in a 525 line, 30 frame system as described in "Standards of Good Engineering Practice for Television Broadcast Stations; Federal Communications Commission," the duty cycle of the voltage pulse must not exceed 15% of one horizontal scanning cycle.
- (2) In stages operating with grid leak bias, an adequate bias resistor or other suitable means is required to protect the tube in the absence of excitation.

6DT6A**3DT6A, 4DT6A**

Color Television Type

FM DETECTOR**Sharp Cutoff Pentode**

Construction	Miniature T-5½
Base	Button 7 Pin, E7-1
Basing	7EN
Outline	5-2
Maximum Diameter	0.750 In.
Maximum Seated Height	1.875 In.
Maximum Overall Height	2.125 In.



7EN

**ELECTRICAL DATA
HEATER OPERATION**

	3DT6A	4DT6A	6DT6A
Heater Voltage.....	3.15	4.2	6.3 Volts
Heater Current	600	450	300 Ma
Heater Warm-up Time	11	11	— Seconds
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)⁽¹⁾

Grid No. 1 to Plate	0.02 Pf
Grid No. 1 to Grid No. 3	0.1 Pf
Grid No. 3 to All Other Electrodes.....	6.1 Pf
Grid No. 1 to Grid No. 2, Grid No. 3, Heater, and Internal Shield and Cathode	5.8 Pf
Grid No. 3 to Plate	1.7 Pf

RATINGS (Design Maximum Rating System)**FM Detector Service**

Plate Voltage (Max.)	330 Volts
Plate Dissipation (Max.)	1.7 Watts
Grid No. 3 Voltage (Max.)	28 Volts
Grid No. 2 Supply Voltage (Max.)	330 Volts
Grid No. 2 Voltage	See Rating Chart (Gen. Info. Sec.)
Grid No. 1 Voltage (Positive Bias) (Max.)	0 Volt
Grid No. 2 Input	
For E_{b2} up to 165 Volts (Max.).....	1.1 Watts
For E_{b2} Between 165 and 330 Volts.....	See Rating Chart (Gen. Info. Sec.)

CHARACTERISTICS AND TYPICAL OPERATION**Class A1 Amplifier**

Plate Supply Voltage.....	150 Volts
Grid No. 3 Supply Voltage.....	0 Volt
Grid No. 2 Supply Voltage.....	100 Volts
Cathode Bias Resistor	560 Ohms
Plate Current	1.55 Ma
Grid No. 2 Current	1.80 Ma
Transconductance	
Grid No. 1 to Plate	1350 μ mhos
Grid No. 3 to Plate	515 μ mhos
Plate Resistance (Approx.)	0.15 Megohm
Grid No. 1 Voltage for $I_b = 10 \mu$ a	-5.2 Volts
Grid No. 3 Voltage for $I_b = 10 \mu$ a	-4.2 Volts

NOTE:

- (1) Shield No. 316 connected to cathode.