

Grid Voltage	0 Volt
Cathode Bias Resistor	220 Ohms
Plate Current	10 Ma
Transconductance	6200 μ mhos
Plate Resistance	5300 Ohms
Amplification Factor	35
Grid Voltage for Gm = 50 μ mhos (Approx.)	-13 Volts

NOTES:

- (1) This rating may be as high as 300 volts max. under cutoff conditions when the tube is used as a cascode amplifier and the two sections are connected in series.
(2) Shield No. 315.

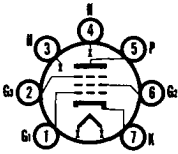
RF/IF AMPLIFIER

6BD6

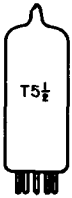
12BD6

Remote Cutoff Pentode

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



7BK



T5½

**ELECTRICAL DATA
HEATER OPERATION**

Heater Voltage	12.6
Heater Current	150
Maximum Heater-Cathode Voltage	

12BD6

12.6
150

6BD6

6.3 Volts
300 Ma
90 Volts

DIRECT INTERELECTRODE CAPACITANCES

Grid to Plate (Max.)	
Input	
Output	

Shielded (1)

0.005
4.3
5.0

Unshielded

0.004 Pf
4.3 Pf
5.0 Pf

RATINGS (Design Center Rating System)

Plate Voltage (Max.)	300 Volts
Grid No. 2 Voltage (Max.)	125 Volts
Plate Dissipation (Max.)	4.0 Watts
Grid No. 2 Dissipation (Max.)	0.4 Watt
Cathode Current (Max.)	14 Ma

CHARACTERISTICS AND TYPICAL OPERATION

Class A1 Amplifier

Plate Voltage	100
Grid No. 3 Voltage	(Connected to Cathode at Socket)
Grid No. 2 Voltage	100
Grid No. 1 Voltage	-1
Plate Current	13
Grid No. 2 Current	5
Transconductance	2350
Plate Resistance	0.12
Ec1 for Gm = 10 μ mhos (Approx.)	-35

250 Volts
100 Volts
-3 Volts
9 Ma
3.5 Ma
2000 μ mhos
0.7 Megohm
-35 Volts

NOTE:

- (1) With external Shield No. 316 connected to pin 7 (cathode).

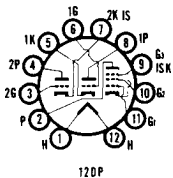
**GENERAL PURPOSE AMPLIFIER (T)
SYNC SEPARATOR (T)
VIDEO AMPLIFIER (P)**

6BD11

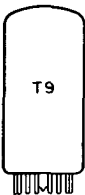
15BD11, 15BD11A

**High Mu Triode, Medium Mu Triode
and Sharp Cutoff Pentode**

Construction	Compactron T-9
Base	Button 12 Pin, E12-70
Basing	12DP
Outline	9-58
Maximum Diameter	1.188 In.
Maximum Seated Height	2.000 In.
Maximum Overall Height	2.375 In.



12DP



T9

**ELECTRICAL DATA
HEATER OPERATION**

	15BD11 15BD11A	6BD11
Heater Voltage.....	14.7	6.3 Volts
Heater Current	450	1050 Ma
Heater Warm-up Time	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 Component		100 Volts
Total DC and Peak.....		200 Volts

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)**Triode (Section 1)**

Grid to Plate	1.9 Pf
Input: T1g to (1Tk + 2Tk + Pk + Pg3 + h + IS)	3.0 Pf
Output: T1p to (1Tk + 2Tk + Pk + Pg3 + h + IS)	2.2 Pf

Triode (Section 2)

Grid to Plate	3.6 Pf
Input: T2g to (2Tk + Pk + Pg3 + h + IS)	2.4 Pf
Output: T2p to (2Tk + Pk + Pg3 + h + IS)	3.8 Pf

Pentode

Grid No. 1 to Plate	0.13 Pf
Input: Pg1 to (2Tk + Pk + Pg2 + Pg3 + h + IS)	11 Pf
Output: Pp to (2Tk + Pk + Pg2 + Pg3 + h + IS)	4.6 Pf

Coupling

Pentode Plate to Triode Plate (Section 2) (Max.)	0.045 Pf
Triode Plate (Section 1) to Triode Plate (Section 2) (Max.)	0.075 Pf

RATINGS (Design Maximum Rating System)**Triode No. 1**

Plate Voltage (Max.)	330 Volts
Positive DC Grid Voltage (Max.)	0 Volt
Plate Dissipation (Max.)	1.5 Watts
Grid Circuit Resistance	
With Fixed Bias (Max.)	0.5 Megohm
With Cathode Bias (Max.)	1.0 Megohm

Triode No. 2

Plate Voltage (Max.)	330 Volts
Positive DC Grid Voltage (Max.)	0 Volt
Plate Dissipation (Max.)	2.0 Watts
Grid Circuit Resistance	
With Fixed Bias (Max.)	0.5 Megohm
With Cathode Bias (Max.)	1.0 Megohm

Pentode Section

Plate Voltage (Max.)	330 Volts
Screen-Supply Voltage (Max.)	330 Volts
Screen Voltage	See Rating Chart (Gen. Info. Sec.)
Positive DC Grid No. 1 Voltage (Max.)	0 Volt
Plate Dissipation (Max.)	4.0 Watts
Screen Dissipation (Max.)	1.1 Watts
Grid No. 1 Circuit Resistance	
With Fixed Bias (Max.)	1.0 Megohm
With Cathode Bias (Max.)	1.0 Megohm

CHARACTERISTICS AND TYPICAL OPERATION**Triode No. 1**

Plate Voltage	200 Volts
Grid Voltage	-2.0 Volts
Amplification Factor	68
Plate Resistance (Approx.)	12,400 Ohms
Transconductance	5500 μ mhos
Plate Current	7.0 Ma
Grid Voltage (Approx.)	
Ib = 100 μ a	-5.5 Volts

Triode No. 2

Plate Voltage	200 Volts
Cathode-Bias Resistor	220 Ohms
Amplification Factor	41
Plate Resistance (Approx.)	9400 Ohms
Transconductance	4400 μ mhos
Plate Current	9.2 Ma
Grid Voltage (Approx.)	
Ib = 100 μ a	-6.5 Volts

Pentode Section

Plate Voltage	35	135 Volts
Screen Voltage	135	135 Volts
Grid No. 1 Voltage ⁽¹⁾	0	— Volt
Cathode Bias Resistor	—	100 Ohms