Grid Voltage	0 Volt
Cathode Bias Resistor	220 Ohms
Plate Current	10 Ma
Transconductance	6200 μmhos
Plate Resistance	5300 Ohms
Amplification Factor	35
Grid Voltage for Gm = 50 μmhos (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.

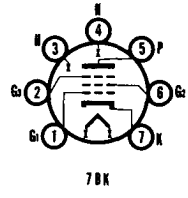
RF/IF AMPLIFIER

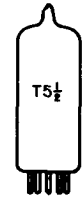
6BD6

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.





ELECTRICAL DATA

HEATER OPERATION

	12BD6	6BD6
Heater Voltage	12.6	6.3 Volts
Heater Current	150	300 Ma
Maximum Heater-Cathode Voltage		90 Volts

DIRECT INTERELECTRODE CAPACITANCES

	Shielded (1)	Unshielded
Grid to Plate (Max.)	0.005	0.004 Pf
Input	4.3	4.3 Pf
Output	5.0	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	250 Volts
Grid No. 3 Voltage	(Connected to Cathode at Socket)	
Grid No. 2 Voltage	100	100 Volts
Grid No. 1 Voltage	−1	−3 Volts
Plate Current	13	9 Ma
Grid No. 2 Current	5	3.5 Ma
Transconductance	2350	2000 μmhos
Plate Resistance	0.12	0.7 Megohm
Ec1 for Gm = 10 μmhos (Approx.)	−35	−35 Volts

NOTE:

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

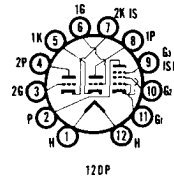
GENERAL PURPOSE AMPLIFIER (T)
SYNC SEPARATOR (T)
VIDEO AMPLIFIER (P)

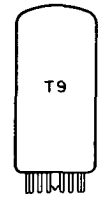
6BD11

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.





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.)	(15BD11A = 1.5)	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 μmhos
Plate Current		7.0 Ma
Grid Voltage (Approx.)		
Ib = 100 μa		–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 μmhos
Plate Current		9.2 Ma
Grid Voltage (Approx.)		
Ib = 100 μa		–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