

Direct Interelectrode Capacitances:*

	Unit No.1	Unit No.2	
Grid to Plate	1.2	1.2	pF
Grid to Cathode, Heater, and Internal Shield	2.6	—	pF
Cathode to Grid, Heater, and Internal Shield	—	5	pF
Plate to Cathode, Heater, and Internal Shield	1.2	—	pF
Plate to Grid, Heater, and Internal Shield	—	2.2	pF
Plate to Cathode	0.12	0.12	pF
Heater to Cathode	2.6	2.6	pF
Plate of Unit No.1 to Plate of Unit No.2	—	0.010 max	pF
Plate of Unit No.2 to Plate and Grid of Unit No.1	—	0.024 max	pF

* Rating may be high as 300 volts under cutoff conditions, when tube is used as a cascode amplifier, the two units are connected in series, and heater is negative with respect to cathode.

* With external shield connected to internal shield.

Class A₁ Amplifier (Each Unit)

MAXIMUM RATINGS (Design-Center Values)

Plate Supply Voltage	250*	volts
Cathode Current	20	mA
Plate Dissipation	2	watts

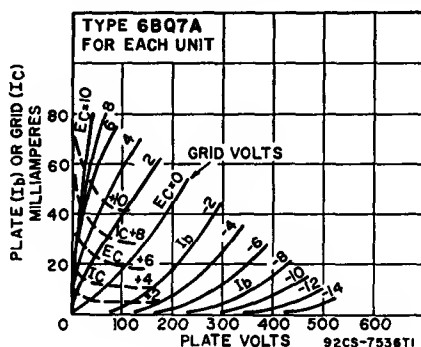
CHARACTERISTICS

Plate Supply Voltage	150	volts
Cathode-Bias Resistor	220	ohms
Amplification Factor	38	
Plate Resistance (Approx.)	5900	ohms
Transconductance	6400	μ mhos
Plate Current	9	mA
Grid Voltage (Approx.):		
For plate current of 100 μ A	-6.5	volts
For plate current of 10 μ A	—	volts

MAXIMUM CIRCUIT VALUE

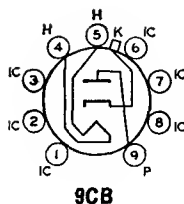
Grid-Circuit Resistance	0.5	megohm
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* Rating may be high as 300 volts under cutoff conditions, when tube is used as a cascode amplifier, the two units are connected in series, and heater is negative with respect to cathode.

HALF-WAVE
VACUUM RECTIFIER

**6BR3/
6RK19**

17BR3/17RK19



Miniature type used as damper tube in horizontal-deflection circuits of television receivers. Outlines section, 7D; requires miniature 9-contact socket. Type 17BR3/17RK19 is identical with type 6BR3/6RK19 except for heater ratings.

6BR3/ 6RK19	17BR3/ 17RK19	
6.3	16.8	volts
1.2	0.45	ampere
—	11	seconds

Heater Voltage (ac/dc)	
Heater Current	
Heater Warm-up Time	

Damper Service

For operation in a 525-line, 30-frame system

MAXIMUM RATINGS (Design-Maximum Values)

Peak Inverse Plate Voltage#	5500	volts
Peak Plate Current	1200	mA
Average Plate Current	200	mA
Plate Dissipation	6.5	watts
Heater-Cathode Voltage:		
Peak value	+300	volts
Average value	+100	volts
Bulb Temperature (At hottest point)	180	°C

CHARACTERISTIC, Instantaneous Value

Tube Voltage Drop for plate current of 250 mA	19	volts
# Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).		

6BR8

Refer to chart at end of section.

For replacement use type 6BR8A/6FV8A.

6BR8A

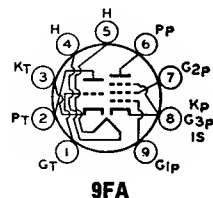
For replacement use type 6BR8A/6FV8A.

6BR8A/ 6FV8A

5BR8/5FV8

MEDIUM-MU TRIODE— SHARP-CUTOFF PENTODE

Miniature type used in color and black-and-white television receiver applications. Especially useful as combined triode oscillator and pentode mixer in vhf television tuners. Outlines section, 6B; requires miniature 9-contact socket. Except for basing arrangement and grid-No.1-to-plate capacitance of pentode unit, types 5BR8/5FV8 and 6BR8A/6FV8A are identical with types 5U8 and 6U8A, respectively.



6BS3

Refer to chart at end of section.

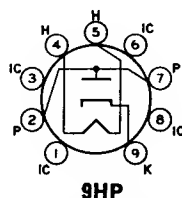
For replacement use type 6BS3A.

6BS3A

12BS3A/
12DW4A, 17BS3A
17BS3A/17DW4A

HALF-WAVE VACUUM RECTIFIER

Novar type used as damper tube in horizontal-deflection circuits of black-and-white television receivers. Outlines section, 30B; requires novar 9-contact socket. Socket terminals 1, 3, 6, and 8 should not be used as tie points; it is recommended that socket clips for these pins be removed to reduce the possibility of arc-over and to minimize leakage. These tubes, like other power-handling tubes, should be adequately ventilated. Types 12BS3A/12DW4A, 17BS3A, and 17BS3A/17DW4A are identical with type 6BS3A except for heater ratings.



	6BS3A	12BS3A/ 12DW4A	17BS3A/ 17BS3A/ 17DW4A	
Heater Voltage (ac/dc)	6.3	12.6	16.8	volts
Heater Current	1.2	0.6	0.45	amperes
Heater Warm-up Time (Average)	—	11	11	seconds
Direct Interelectrode Capacitances (Approx.):				
Plate to Cathode and Heater			6.5	pF
Cathode to Plate and Heater			9	pF
Heater to Cathode			2.8	pF