

MAXIMUM CIRCUIT VALUE

Grid-Circuit Resistance for cathode-bias operation 2.2 megohms

Pulse duration must not exceed 15% of a vertical scanning cycle (2.5 milliseconds).

* Under no circumstances should this absolute value be exceeded.

Refer to chart at end of section. **12BK5**

Refer to chart at end of section. **12BL6**

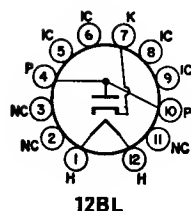
Refer to type 6BN6. **12BN6**

Refer to type 6BQ6GTB/6CU6. **12BQ6GTB/12CU6**

Refer to chart at end of section. **12BR7**

Refer to chart at end of section. **12BS3**

Refer to type 6BS3A. **12BS3A**



12BL

**HALF-WAVE
VACUUM RECTIFIER**

12BT3

Duodecar type used as damper tube in horizontal-deflection circuits of television receivers. Outlines section, 8C; requires duodecar 12-contact socket. Heater: volts (ac/dc), 12.6; amperes, 0.45.

Damper Service

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

MAXIMUM RATINGS (Design-Maximum Values)

Peak Inverse Plate Voltage#	3300	volts
Peak Plate Current	1000	mA
Average Plate Current	165	mA
Plate Dissipation	5.3	watts
Heater-Cathode Voltage:		
Peak value	+300	volts
Average value	+100	volts

CHARACTERISTICS, Instantaneous Value

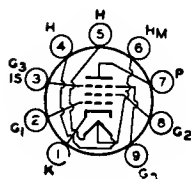
Tube Voltage Drop for plate current of 250 mA max	21	volts
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Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).

Refer to chart at end of section. **12BV7**

Refer to chart at end of section. **12BW4**

Refer to chart at end of section. **12BY7**



9BF

SHARP-CUTOFF PENTODE

12BY7A

Miniature type used as video amplifier in television receivers. Outlines section, 6E; requires miniature 9-contact socket.

Heater Arrangement:	Series	Parallel	
Heater Voltage (ac/dc)	12.6	6.3	volts
Heater Current	0.3	0.6	ampere
Heater Warm-up Time (Average)	—	11	seconds
Heater-Cathode Voltage:			
Peak value		±200 max	volts
Average value		100 max	volts

Direct Interelectrode Capacitances:

Grid No.1 to Plate	0.063	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	10.2	pF
Plate to Cathode, Heater, Grid No.2, and Internal Shield	3.5	pF

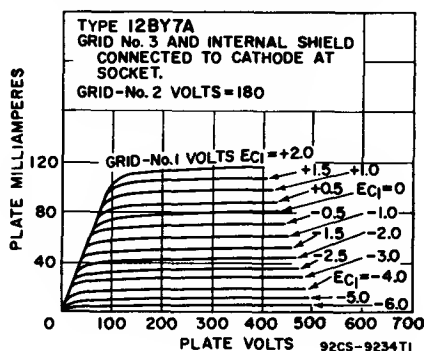
Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

Plate Supply Voltage	330	volts
Grid-No.3 (Suppressor-Grid) Voltage, Positive value	0	volts
Grid-No.2 (Screen-Grid) Voltage	190	volts
Grid-No.1 (Control-Grid) Voltage		
Negative-bias value	55	volts
Positive-bias value	0	volts
Plate Dissipation	6.5	watts
Grid-No.2 Input	1.2	watts

CHARACTERISTICS

Plate Supply Voltage	250	volts
Grid No.3	Connected to cathode at socket	
Grid-No.2 Supply Voltage	180	volts
Cathode-Bias Resistor	100	ohms
Plate Resistance (Approx.)	93000	ohms
Transconductance	11000	μmhos
Plate Current	26	mA
Grid-No.2 Current	5.75	mA
Grid-No.1 Voltage (Approx.) for plate current of 20 μA	-11.6	volts



MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:		
For fixed-bias operation	0.25	megohm
For cathode-bias operation	1	megohm

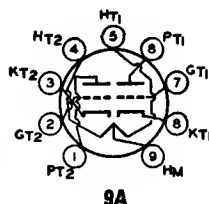
12BZ6

Refer to type 6BZ6.

12BZ7

HIGH-MU TWIN TRIODE

Miniature type used in sync-separator and sync-amplifier circuits of television receivers, and in clipping circuits and audio-amplifier applications. Outlines section, 6E; requires miniature 9-contact socket.



Heater Voltage	Series 12.6	Parallel 6.3	volts
Heater Current	0.3	0.6	ampere
Peak Heater-Cathode Voltage	±180 max	±180 max	volts
Direct Interelectrode Capacitances:			
Grid to Plate	Unit No.1 2.5	Unit No.2 2.5	pF
Grid to Cathode, and Heater	6.5	6.5	pF
Plate to Cathode, and Heater	0.7	0.55	pF
Plate of Unit No.1 to Plate of Unit No.2		1.3	pF