

Refer to chart at end of section.	12CT8
Refer to type 6CU5.	12CU5/12CS
For replacement use type 12BQ6GTB/12CU6.	12CU6
Refer to chart at end of section.	12CX6
Refer to chart at end of section.	12D4
Refer to chart at end of section.	12DB5
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Refer to type 6DK6.	12DK6
Refer to chart at end of section.	12DK7
Refer to chart at end of section.	12DL8
Refer to chart at end of section.	12DM4
Refer to chart at end of section.	12DM4A
Refer to chart at end of section.	12DQ6A
Refer to chart at end of section.	12DQ6B
For replacement use type 12GW6/12DQ6B.	12DQ7
Refer to chart at end of section.	12DS7
Refer to type 6DT5.	12DS7A
Refer to type 6DT8.	12DT5
Refer to chart at end of section.	12DT8
Refer to chart at end of section.	12DU7
Refer to chart at end of section.	12DV8
For replacement use type 12BS3A/12DW4A.	12DW4A
Refer to chart at end of section.	12DW7
Refer to chart at end of section.	12DY8
Refer to chart at end of section.	12DZ6
For replacement use type 12EK6/12DZ6/12EA6.	12EA6
Refer to chart at end of section.	12EC8
Refer to chart at end of section.	12ED5
Refer to chart at end of section.	12EG6
Refer to chart at end of section.	12EH5
Refer to chart at end of section.	12EK6/12DZ6/12EA6
Refer to chart at end of section.	12EL6
Refer to chart at end of section.	12EM6
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12FK6

Refer to chart at end of section.

12FM6

Refer to chart at end of section.

12FQ7

Refer to type 6FQ7/6CG7.

12FQ8

Refer to chart at end of section.

12FR8

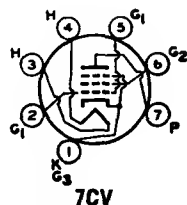
Refer to chart at end of section.

12FV7

Refer to chart at end of section.

12FX5**19FX5, 60FX5****POWER PENTODE**

Miniature type used in output stages of audio amplifiers. Outlines section, 5D; requires miniature 7-contact socket. Types 19FX5 and 60FX5 are identical with type 12FX5 except for heater ratings.



	12FX5	19FX5	60FX5	
Heater Voltage (ac/dc)	12.6	18.9	60	volts
Heater Current	0.45	0.3	0.1	ampere
Heater Warm-up Time (Average)	11	11	—	seconds
Heater-Cathode Voltage:				
Peak value	±200 max	±200 max	±200 max	volts
Average value	100 max	100 max	100 max	volts
Direct Interelectrode Capacitances (Approx.):				
Grid No.1 to Plate			0.65	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3			17	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3			9	pF

Class A₁ Amplifier**MAXIMUM RATINGS (Design-Maximum Values)**

Plate Voltage	150	volts
Grid-No.2 (Screen-Grid) Voltage	130	volts
Plate Dissipation	5.5	watts
Grid-No.2 Input	2	watts
Bulb Temperature (At hottest point)	225	°C

TYPICAL OPERATION

Plate Supply Voltage	110	volts
Grid-No.2 Supply Voltage	115	volts
Cathode-Bias Resistor	62	ohms
Peak AF Grid-No.1 Voltage	3	volts
Zero-Signal Plate Current	36	mA
Maximum-Signal Plate Current	35	mA
Zero-Signal Grid No.2 Current	10	mA
Maximum-Signal Grid No.2 Current	12	mA
Plate Resistance	17500	ohms
Transconductance	13500	μmhos
Load Resistance	3000	ohms

