

ELECTRONIC TUBE REFERENCE

6690

Voltage - Pentode Sharp Cutoff (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Professional small-signal pentode for conventional voltage-amplifier service, without a more specialized detector, output, or power function.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7BD	BASE PINS	7
NOMINAL HEATER	6.3 V / 150 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7BD - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – G1	A	G1 – Control Grid	CONNECTED
PIN2 – G3	A	G3 – Suppressor Grid	CONNECTED
PIN2 – IS	A	IS – Internal Screen	CONNECTED
PIN2 – K	A	K – Cathode	CONNECTED
PIN3 – H	–	H – Heater	CONNECTED
PIN4 – H	–	H – Heater	CONNECTED
PIN5 – P	A	P – Plate (Anode)	CONNECTED
PIN6 – G2	A	G2 – Screen Grid	CONNECTED
PIN7 – G3	A	G3 – Suppressor Grid	CONNECTED
PIN7 – IS	A	IS – Internal Screen	CONNECTED
PIN7 – K	A	K – Cathode	CONNECTED

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	300000 Ω
TRANSCONDUCTANCE	0.002 S
MAXIMUM PLATE VOLTAGE	180 V
MAXIMUM SCREEN VOLTAGE	140 V
<i>Published values promoted where clearly attributable to this section.</i>	

The 6690 is a other described in the approved English datasheet.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X General Electric Essential Characteristics

Published test conditions and operating points. Values on this page are preserved as reported by this source.

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	180 V	Published handbook rating
Maximum screen voltage	140 V	Published handbook rating
Plate voltage	90 V	ClassA
Screen voltage	90 V	ClassA
Plate current	3.9 mA	ClassA
Screen current	1.4 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	300000 ohm	Published handbook characteristic
Transconductance	2000 μ S	Published handbook characteristic
Heater/filament voltage	6.3 V	Published heater/filament rating
Heater/filament current	150 mA	Published heater/filament rating

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	3.4 pF	Published capacitance column
Output capacitance	2.9 pF	Published capacitance column
Grid-to-plate capacitance	0.01 pF	Published capacitance column

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes, and their source documents.

