



*Excellence in Electronics*

**TYPE  
CK5970**

The CK5970 is a filament type double pentode of subminiature construction with remote cut-off characteristics designed for use as a Class A RF amplifier at frequencies in the VHF range. The flexible terminal leads may be soldered or welded to the terminals of circuit components without the use of sockets. Standard 8-Pin subminiature sockets may be used by cutting the leads to a suitable length.

**MECHANICAL DATA**

ENVELOPE: T-3 Glass

BASE: Subminiature Button 8-Pin (0.017" tinned flexible leads.  
Length: 1.50" minimum)

TERMINAL CONNECTIONS:

- |                            |                            |
|----------------------------|----------------------------|
| Lead 1 Filament Negative ● | Lead 5 Plate, Unit 1       |
| Lead 2 Grid #1, Unit 2     | Lead 6 Grid #2, Unit 1     |
| Lead 3 Grid #2, Unit 2     | Lead 7 Grid #1, Unit 1     |
| Lead 4 Plate, Unit 2       | Lead 8 Filament Positive ● |

MOUNTING POSITION: Any

**ELECTRICAL DATA**

DIRECT INTERELECTRODE CAPACITANCES: (unshielded) ( $\mu\mu\text{fs.}$ )

Grid to Plate (each unit)	0.1 max.
Input (each unit)	3.3
Output (each unit)	2.4
Grid #1 to Grid #1	0.02
Plate to Plate	0.3

RATINGS - ABSOLUTE MAXIMUM VALUES:

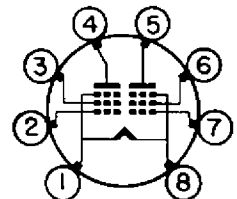
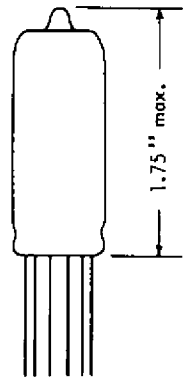
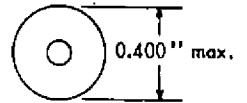
Filament Voltage (dc)	1.25±20% volts
Plate Voltage	45 volts
Grid #2 Voltage	45 volts
Total Cathode Current (each unit)	5 ma.

CHARACTERISTICS AND TYPICAL OPERATION - CLASS A1 AMPLIFIER:

Filament Voltage (dc)	1.25 volts
Filament Current	160 ma.
Plate Voltage	45 volts
Grid #2 Voltage	45 volts
Grid #1 Voltage ♦	0 volts
Plate Resistance (each unit)	0.17 meg.
Transconductance (each unit)	1850 $\mu\text{mhos}$
Plate Current (each unit)	3.0 ma.
Grid #2 Current (each unit)	0.9
Grid #1 Voltage (approx.)	
for Plate Current of 20 $\mu\text{A.}$ (each unit)	-11.5 volts

● Grid #3 is composed of two separate deflector plates, one of which is connected to Lead 1, and the other to Lead 8.

♦ Grid resistor=5 megohms.



BOTTOM VIEW

8DS

from JETEC release #1961, July 1, 1957

Tentative Data

RAYTHEON MANUFACTURING COMPANY

RECEIVING AND CATHODE RAY TUBE OPERATIONS