

HITACHI

6KN8 • 4KN8

TWIN TRIODE

for VHF cascode amplifier application

The Hitachi 6KN8 and 4KN8 are miniature, medium-mu twin triode designed for use as a cascode connected VHF amplifier of television tuners. As 6KN8 and 4KN8 have considerably high transconductance and low interelectrode capacitance with their special frame grid structure, these tubes enable the television tuner to have high gain and low noise characteristics.

The Hitachi 6KN8 and 4KN8 are newly registered JEDEC type name and have been famous by the name of Hitachi 6R-HH8 and 4R-HH8.

ELECTRICAL DATA

Cathode Coated Unipotential

Heater ;

	4KN8	6KN8
Heater Voltage	4.2	6.3 Volts
Heater Current	0.6	0.4 Amperes
Heater Warm up Time	11	- Seconds

Maximum Heater-Cathode Voltage

Heater Negative with Respect to Cathode		
DC Component	220	220 Volts
Total DC and Peak	220	220 Volts
Heater Positive with Respect to Cathode		
DC Component	110	110 Volts
Total DC and Peak	220	220 Volts

Direct Interelectrode Capacitance (with external shield)

	Unit No. 1	Unit No. 2
Grid to Plate	1.7	1.7 μf
Input : grounded cathode	3.6	- μf
grounded grid	-	6.0 μf
Output : grounded cathode	2.4	- μf
grounded grid	-	3.6 μf
Plate to Cathode	0.17	0.17 μf
Heater to Cathode	2.5	2.5 μf
Plate to Plate, max.	0.015	μf

MAXIMUM RATINGS (Absolute Maximum System, A-class Amplifier)

Plate Voltage*	220 Volts
Plate Dissipation	2.2 Watts
DC Cathode Current	22 Milliamperes
Fixed Bias Grid Circuit Resistance	1 Megohms

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

Class A₁ Amplifier (each unit)

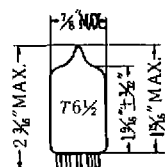
Plate Voltage	110 Volts
Grid Voltage	-1 Volts
Amplification Factor	45
Plate Resistance (approx.)	2,800 Ohms
Transconductance	16,000 Micromhos
Plate Current	16 Milliamperes
Grid Voltage, approximately for Gm=50 Micromhos	-5 Volts

Cascode Amplifier

Plate Supply Voltage	220 Volts
Grid Supply Voltage	0 Volts
Grid Circuit Resistance	1 Megohms
Plate Current	17 Milliamperes
Transconductance	16,500 Micromhos

Note*; When the tube is used as a cascode amplifier and the two sections are connected in series, this voltage may be as high as 330 Volts maximum under cutoff condition.

MAX.



9AJ

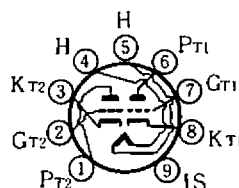


PLATE CHARACTERISTICS (1)
(each section)

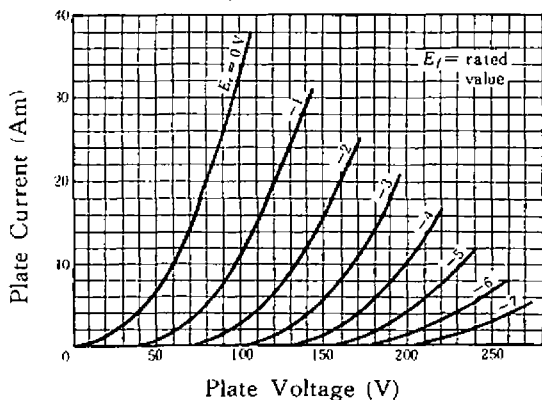
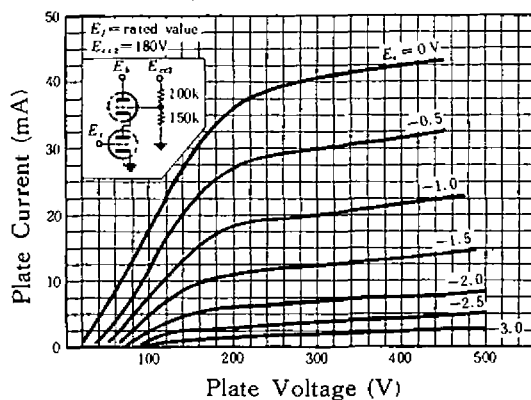
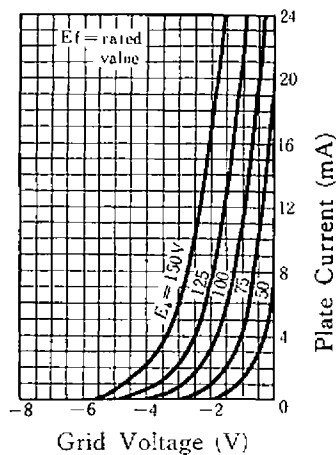


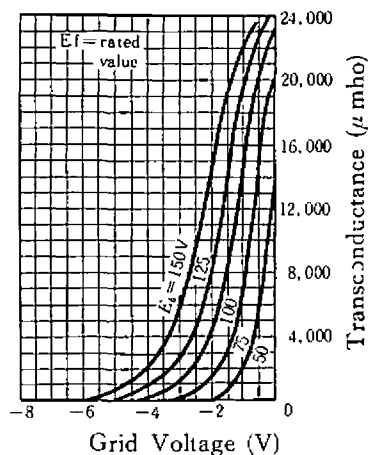
PLATE CHARACTERISTICS (2)
(cascode connection)



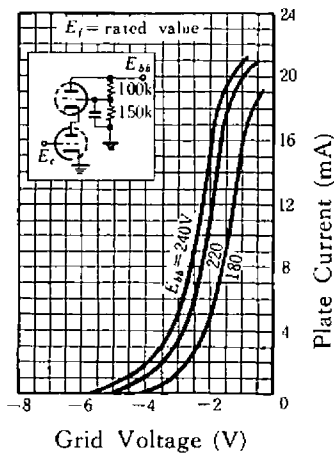
GRID CHARACTERISTICS (1)
(each section)



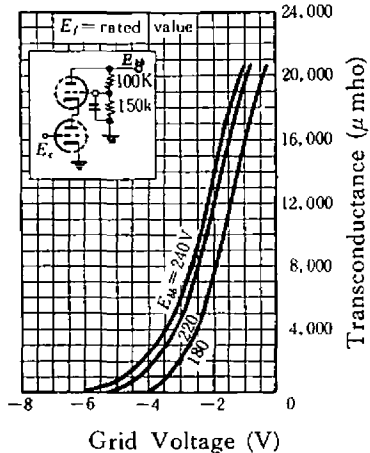
GRID CHARACTERISTICS (2)
(each section)



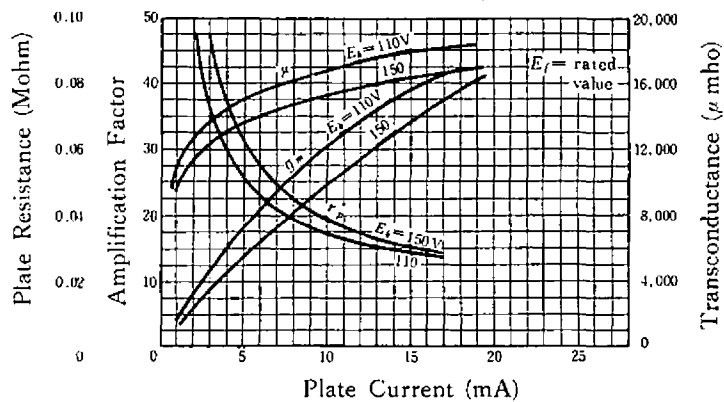
GRID CHARACTERISTICS (3)
(cascode connection)



GRID CHARACTERISTICS (4)
(cascode connection)



AVERAGE CHARACTERISTICS
(each section)



MAIN PRODUCTS

Electrical and Mechanical Machinery and Equipment for Power Generation, Transformation and Transmission

General Purpose Motor-Driven Machinery and Equipment

Machinery and Equipment for Coal and Ore Mining

Machinery and Equipment for Iron and Steel Refining

Locomotives, Rolling Stock and Other Transportation Equipment

Machinery and Equipment for Material Handling and Transporting

Machinery and Equipment for Marine Service

Household Electric Machines and Appliances

Machinery and Equipment for Agricultural and Fishing Industries

Machinery and Equipment for Waterworks and Gasworks

Machinery and Equipment for Refrigeration and Cold Storage Plants

Machinery and Equipment for Civil Engineering and Construction

Machinery and Equipment for Chemical Industry

Machinery and Equipment for Textile and Paper Manufacturing Industries

Machinery and Equipment for Wire and Wireless Communications

Electronic Computers and Applied Electronic Instruments

Precision Instruments for Scientific Researches

Electrical and Optical Measuring Instruments

Incandescent and Fluorescent Lamps and Lighting Fixtures

Electron Tubes for Radio and Television

Transistors and Semiconductor Products

Insulating Materials; Synthetic Resin Products

Printing Presses

Machine Tools

Products by Associated Companies

Malleable Cast Iron, Cast and Forged Steel Products

Rolls; Special Steels

Electric Wires and Cables



Head Office: 4, 1-chome, Marunouchi, Chiyoda-ku, Tokyo

Tel. Tokyo (212) 1111 (80 lines)

Cable Address: "HITACHY" TOKYO

Codes: All Codes Used