

RAYTHEON

POWER PENTODES 6HA6, 8HA6, 10HA6, 15HA6, 28HA6

The 6HA6 is a power pentode designed especially for use as a video amplifier in low B⁺ television receivers. The very high transconductance sharp cutoff and low plate knee characteristic provide excellent linearity over a large operating range. Additional features include high plate dissipation and low interelectrode capacitance making this tube ideal for use in TV video and other wide band applications. The 8HA6, 10HA6, 15HA6, and 28HA6 are identical except for heater characteristics.

ELECTRICAL DATA

HEATER CHARACTERISTICS:

	6HA6	8HA6	10HA6	15HA6	28HA6
Heater voltage (ac or dc)	6.3 ± 10%□	8.0●●	10.4●●	15.0●●	28.6●● volts
Heater current	710●	600 ± 6%□	450 ± 6%□	300 ± 6%□	150 ± 6%□ ma
Peak heater-cathode voltage maximum					
Heater negative to cathode					200 volts
Heater positive to cathode					200 [†] volts

DESIGN MAXIMUM RATINGS: (See EIA Standard RS-239)

Plate voltage	300 volts
Grid #2 voltage	250 volts
Negative grid #1 voltage	-100 volts
Plate dissipation	8.0 watts
Grid #2 dissipation	1.5 watts
Grid #1 circuit resistance	
Fixed bias	0.05 meg.
Self bias	0.15 meg.

AVERAGE CHARACTERISTICS:

Plate voltage	150 volts
Grid #2 voltage	100 volts
Cathode resistor	33 ohms
Plate current	28 ma
Grid #2 current	3.5 ma
Triode Mu*	31
Transconductance	20000 umhos
Plate resistance	20K ohms
Grid #1 voltage for Ib = 100 ua (approx.)	-5.0 volts

DIRECT INTERELECTRODE CAPACITANCES:

Grid #1 to plate (g1 to p).	0.18 pf.
Input g1 to (h + k + g2 + b.p.).	13 pf.
Output p to (h + k + g2 + b.p.).	8 pf.

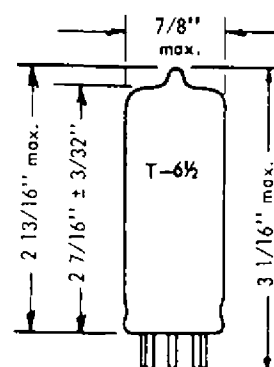
PLATE KNEE CHARACTERISTICS: (Instantaneous readings)

Eb = 60 volts, Ec2 = 100 volts, Ec1 = 0 volts	
Plate current	45 ma
Grid #2 current	9.0 ma

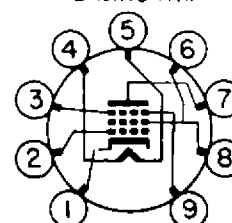
MECHANICAL DATA

ENVELOPE T-6½ glass
BASE 9 pin miniature (E9-1)
CATHODE coated unipotential
MOUNTING POSITION any

PHYSICAL DIMENSIONS



BASING 9NW



BOTTOM VIEW

TERMINAL CONNECTIONS

- Pin 1 cathode
- Pin 2 grid #1
- Pin 3 grid #3
- Pin 4 heater
- Pin 5 heater
- Pin 6 grid #2
- Pin 7 plate
- Pin 8 grid #2
- Pin 9 grid #3

POWER PENTODES 6HA6, 8HA6, 10HA6, 15HA6, 28HA6

□ The equipment designer shall design equipment so that the heater voltage for the 6HA6 and the heater current for the 8HA6, 10HA6, 15HA6 and 28HA6 are centered at the specified bogey value with heater supply variations restricted to maintain heater voltage (or current) within the specified tolerance.

● Heater current at bogey heater voltage.

●● Heater voltage at bogey heater current.

† The dc component must not exceed 100 volts.

* Plate tied to G2 at 100 volts.

