

April 30, 1940

HYTRON CORPORATION

TENTATIVE SPECIFICATIONS

BANTAM TYPE 6SE7GT

GENERAL DESCRIPTIONAPPLICATION:

The Hytron Bantam 6SE7GT is a single ended cathode type pentode of sharp cutoff characteristics and is designed primarily for service as a high gain amplifier of radio or audio frequency signals. Because of its extremely high value of transconductance at relatively low cathode current and low plate resistance, the tube lends itself to use in applications requiring high gains with low thermal activity. It may be also employed as a bias detector, radio frequency oscillator or as a mixer tube in properly designed superheterodyne circuits.

The Hytron Bantam 6SE7GT is a glass tube equipped with an octal wafer base and metal shell. Through its unique geometric design the control grid of the tube is brought out completely isolated and shielded from all other elements to the #4 base pin. The metal base shell and metal inter-pin base shield are both brought out to the #1 pin to facilitate external shielding of the stem leads and base pins.

PHYSICAL CHARACTERISTICS: BULB T-9DRATINGS AND CHARACTERISTICS

Heater Voltage (A.C. or D.C.)	6.3	volts
Heater Current	0.3	ampere
Direct Interelectrode Capacitances: <sup>o</sup>		
Grid to Plate	.0035 max.	uuf
Input	6.0	uuf
Output	7.5	uuf
Maximum Overall Length		3-5/16"
Maximum Seated Height		2-3/4"
Maximum Diameter		1-5/16"
Base	Composite wafer-metal shell octal 8-pin	
Basing		8N-1-5

AMPLIFIER - CLASS AOperating Conditions and Characteristics:

Heater Voltage*	6.3	6.3	volts
Plate Voltage	100	250 max.	volts
Screen Voltage	100 max.	100 max.	volts
Grid Voltage	-1.0	-1.5	volts
Suppressor	Connected to cathode at socket		
Plate Current	5.5	4.5	ma.
Screen Current	2.4	1.5	ma.
Amplification Factor	750	3750	approx.
Plate Resistance	.25	1.1	megohms approx.
Transconductance	3100	3400	micromhos
Grid Volta (Gm = 5 umhos)	-4.5	-6.0	volts approx.

PIN CONNECTIONS

Pin 1 - Shell	Pin 5 - Cathode & internal shield
Pin 2 - Heater	Pin 6 - Screen grid
Pin 3 - Suppressor grid	Pin 7 - Heater
Pin 4 - Control grid	Pin 8 - Plate

<sup>o</sup> With shell connected to cathode.

\* In circuits where the cathode is not directly returned to ground, the potential difference between the heater and cathode should be kept as low as possible.