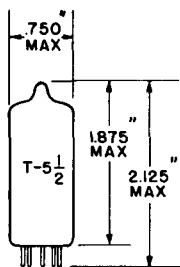


TUNG-SOL

PENTODE
MINIATURE TYPE

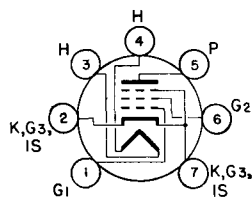
GLASS BULB
MINIATURE BOTTOM
7 PIN BASE E7-1
OUTLINE DRAWING
JEDEC 5-2

COATED UNIPOTENTIAL CATHODE

HIGH FREQUENCY INTERMEDIATE

AND RF AMPLIFIER

ANY MOUNTING POSITION



BOTTOM VIEW
BASING DIAGRAM
BASING DIAGRAM
JEDEC 7B0

THE 6BC5 IS A HIGH TRANSCONDUCTANCE PENTODE VOLTAGE AMPLIFIER USING THE 7 PIN MINIATURE CONSTRUCTION. IT IS USEFUL AS AN RF AMPLIFIER UP TO ABOUT 400 MC. AND AS A HIGH-FREQUENCY INTERMEDIATE AMPLIFIER.

DIRECT INTERELECTRODE CAPACITANCES

	WITH SHIELD	WITHOUT SHIELD	
PENTODE CONNECTION:			
GRID TO PLATE: (G1 TO P) MAX.	→ 0.020	→ 0.030	pf
INPUT: G1 TO (H+K+G2+G3 & I.S.)	6.6	6.5	pf
OUTPUT: P TO (H+K+G2+G3 & I.S.)	→ 2.6	1.8	pf
TRIODE CONNECTION: (G2 TIED TO PLATE)			
GRID TO PLATE: G1 TO (P+G2)	2.5	2.5	pf
INPUT: G1 TO (H+K+G3 & I.S.)	→ 4.0	3.9	pf
OUTPUT: (P+G2) TO (H+K+G3 & I.S.)	4.3	→ 3.0	pf

A
EXTERNAL SHIELD #316 CONNECTED TO PIN #7.

HEATER CHARACTERISTICS AND RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS	6.3 VOLTS	300	MA.
HEATER SUPPLY LIMITS:			
VOLTAGE OPERATION		6.3±0.6	VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE:			
HEATER NEGATIVE WITH RESPECT TO CATHODE		→ 200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE		200 ^B	VOLTS

B
DC COMPONENT MUST NOT EXCEED 100 VOLTS.

→ INDICATES A CHANGE.

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

→ MAXIMUM RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

	TRIODE ^C	PENTODE	
PLATE VOLTAGE	330	330	VOLTS
GRID #2 VOLTAGE	---	---	---
GRID #2 SUPPLY VOLTAGE	PLATE	SEE RATING CHART	---
PLATE DISSIPATION	2.9 ^C	330	VOLTS
GRID #2 DISSIPATION	---	2.3	WATTS
GRID #1 VOLTAGE (POSITIVE BIAS VALUE)	0	0	WATT
GRID #2 DISSIPATION	---	---	VOLT
FOR VOLTAGES UP TO 165 V.	---	.55	WATTS
FOR VOLTAGES BETWEEN 165 & 330 V.	---	SEE RATING CHART	---

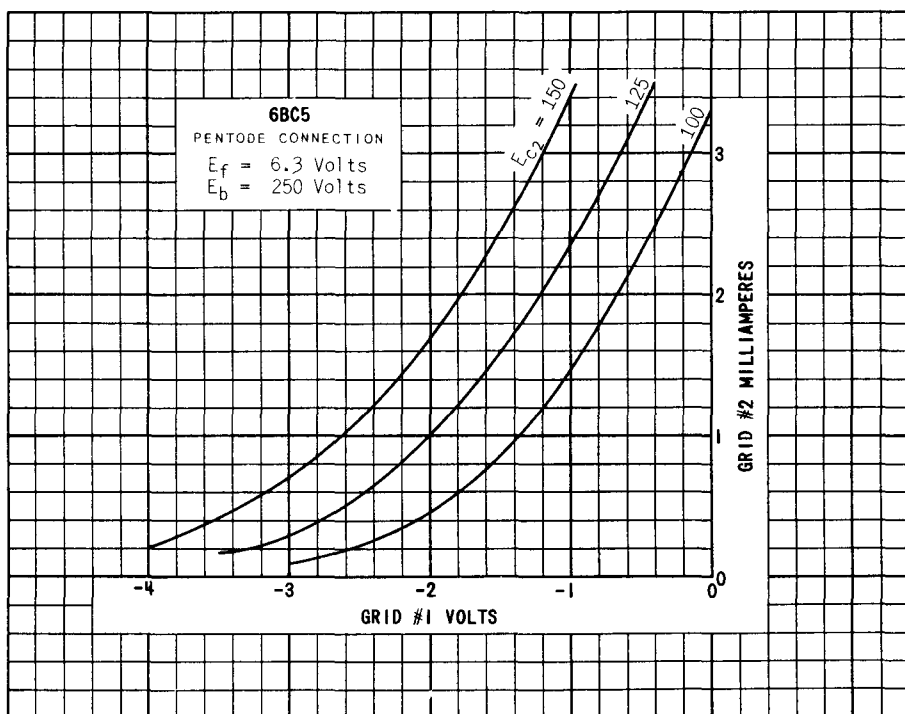
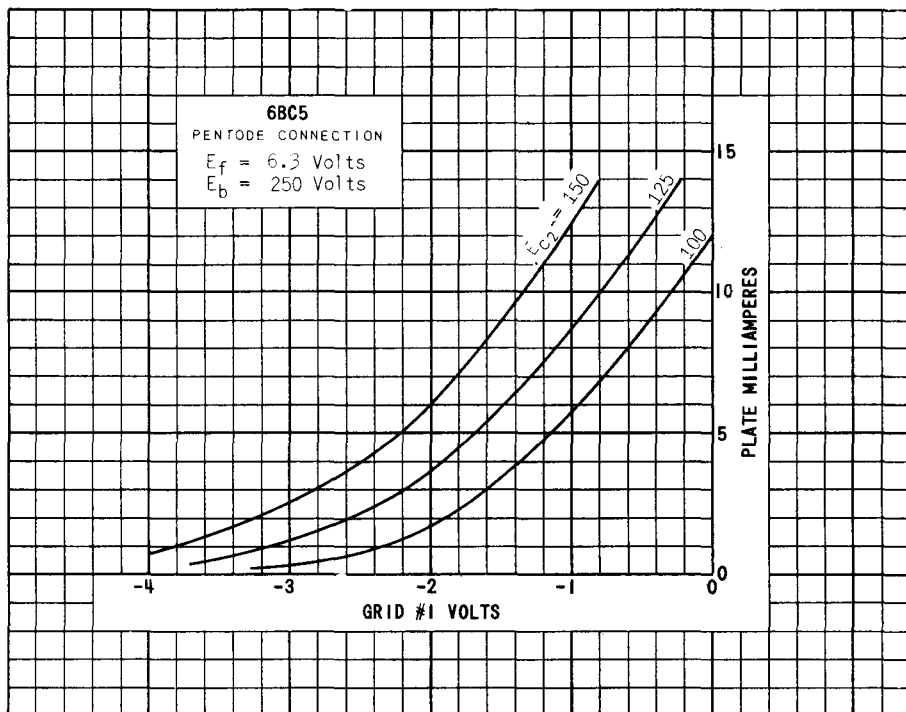
→ TYPICAL OPERATING CHARACTERISTICS

CLASS A₁ AMPLIFIER

	TRIODE ^C		PENTODE			
PLATE VOLTAGE	250	180	100	125	250	VOLTS
GRID #2 VOLTAGE	PLATE	PLATE	100	125	150	VOLTS
CATHODE RESISTOR	820	330	180	100	180	OHMS
TRANSCONDUCTANCE	4400	6000	4900	6100	5700	μMHOS
PLATE RESISTANCE (APPROXIMATELY)	.009	.006	0.6	0.5	0.8	MEGOHM
AMPLIFICATION FACTOR	40	42	---	---	---	---
PLATE CURRENT	6.0 ^D	8.0 ^D	4.7	8.0	7.5	MA.
GRID #2 CURRENT	---	---	1.4	2.4	2.1	MA.
GRID #1 VOLTAGE (APPROX.) FOR I _b = 10 μA.	---	---	-5	-6	-8	VOLTS

^C G₂ TIED TO PLATE.^D TOTAL CURRENT FLOWING TO PLATE + G₂.

→ INDICATES A CHANGE.



6BC5

