

REMOTE - CUTOFF PENTODE TYPES 3BA6, 6BA6 AND 12BA6

The 3BA6, 6BA6 and 12BA6 are 7-pin miniature receiving tubes used as rf amplifiers in ac/dc standard broadcast receivers, in FM receivers, and in wide-band high-frequency applications. The low grid-1-to-plate capacitance minimizes regeneration, and they have high transconductance.

The 3BA6 has been designed for use in receivers which employ series-connected heaters, especially in television receivers where the picture-tube heater is in series with other heaters. When it is employed in this type of circuit with other tubes having a heater current rating of 600 ma., heater voltage surges across individual tubes are minimized inasmuch as the heater warm-up characteristic is controlled.

ELECTRICAL:

Cathode.....	Coated Unipotential		
Heater:	3BA6	6BA6	12BA6
Voltage (ac or dc)	3.15	6.3	12.6
Current	0.60	0.30	0.15
Warm-up Time (Approx.) Δ	11	--	--
Seconds			
Direct Interelectrode Capacitances: (Unshielded):			
Grid to Plate	0.0035	max.	$\mu\mu\text{f}$
Input.....	5.5		$\mu\mu\text{f}$
Output.....	5.0		$\mu\mu\text{f}$

MECHANICAL:

Bulb.....	T-5- $\frac{1}{2}$
Base.....	JEDEC E7-1, Small Button 7-Pin
Basing.....	7BK
Mounting Position	Any

MAXIMUM RATINGS:

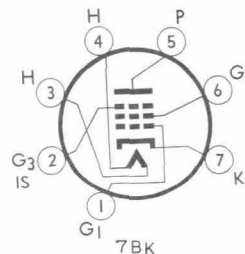
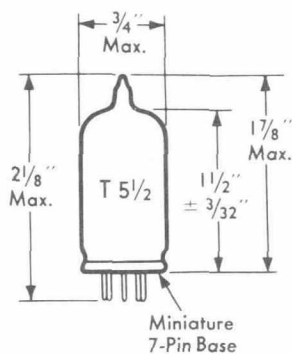
Design Maximum Values

Plate Voltage	330	max.	Volts
Grid 2 (Screen) Supply Voltage	330	max.	Volts
Grid 2 Voltage.....	See Grid 2 Input		
Grid 1 (Control Grid) Voltage:	Rating Chart		
Negative Bias Value	55	max.	Volts
Positive Bias Value.....	0	max.	Volts
Plate Dissipation.....	3.4	max.	Watts
Grid 2 Dissipation	0.6	max.	Watts
Heater-Cathode Voltage:			
Heater Negative with Respect to Cathode			
Total DC + Peak	200	200	max. Volts
Heater Positive with Respect to Cathode			
DC Component.....	100	100	max. Volts
Total DC + Peak	200	200	max. Volts

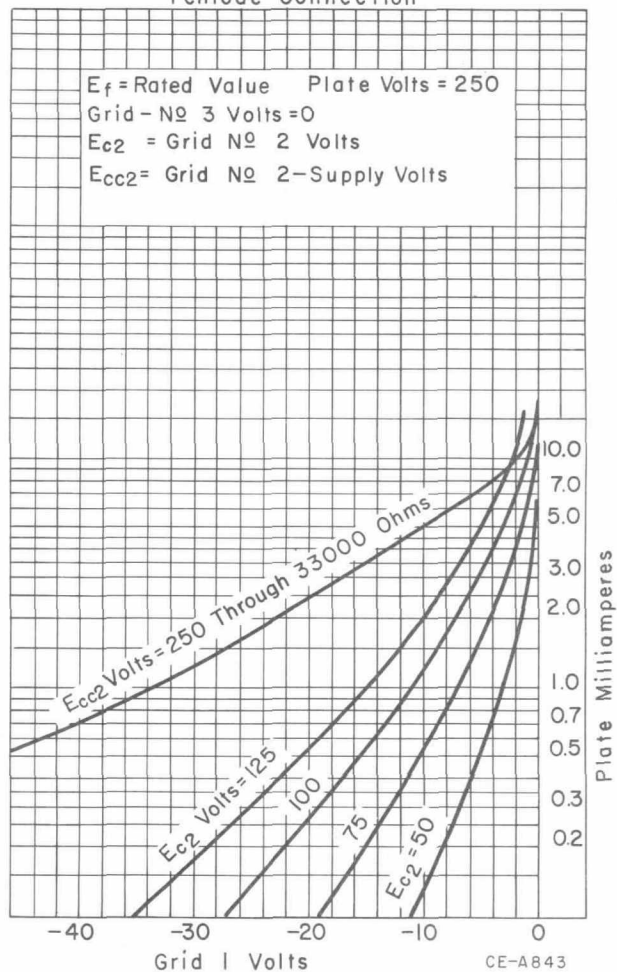
CHARACTERISTICS AND TYPICAL OPERATION:

Plate Voltage	100	250	Volts
Grid 2 Voltage.....	100	100	Volts
Grid 3 (Suppressor) Voltage	Connected to Cathode at Socket		
Cathode-Bias Resistor	68	68	Ohms
Plate Resistance (Approx.)	0.25	1.0	Megohms
Transconductance	4300	4400	μmhos
Grid 1 Bias (Approx.) for			
transconductance of 40 μmhos	-20	-20	Volts
Plate Current	10.8	11	Ma.
Grid 2 Current.....	4.4	4.2	Ma.

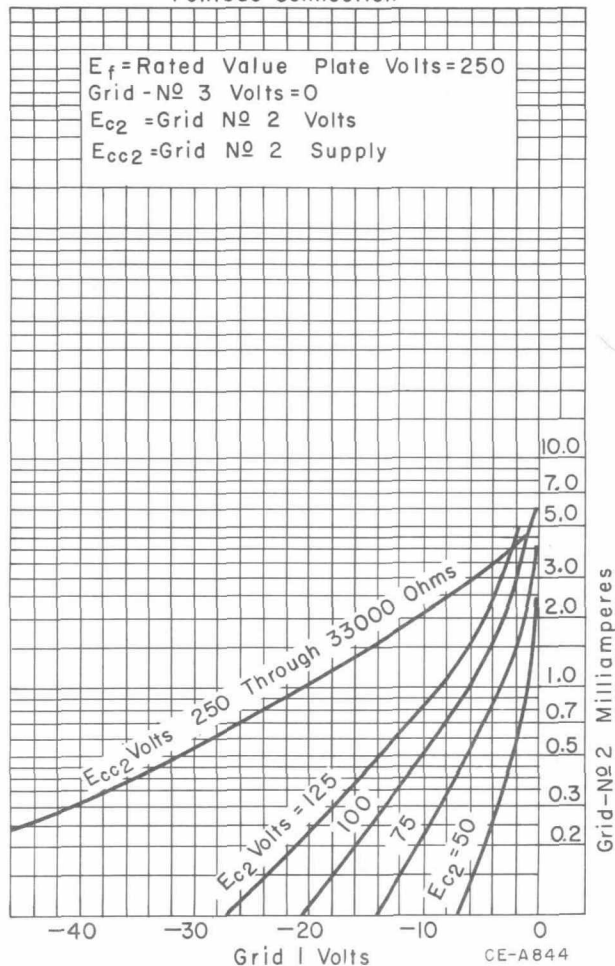
Δ Heater warm-up time is defined as the time required for the voltage across the heater to reach 80% of its rated value after applying 4 times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to 3 times rated heater voltage divided by rated heater current.

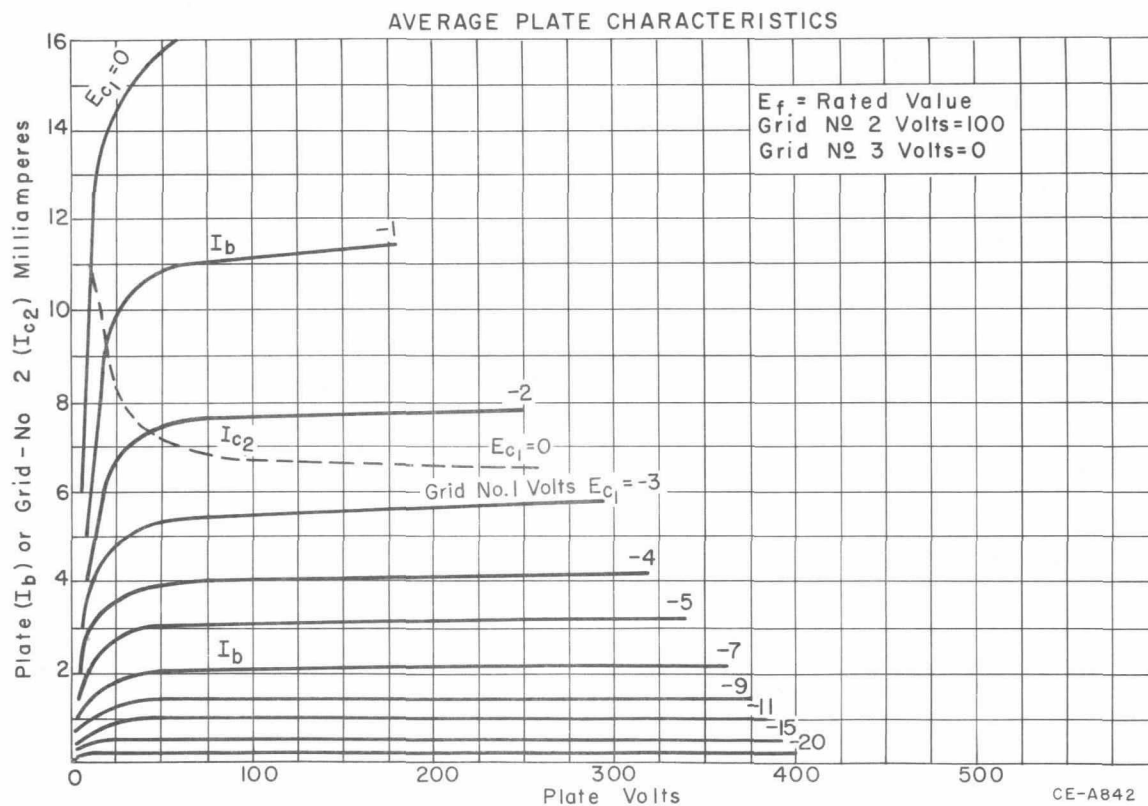


AVERAGE CHARACTERISTICS
Pentode Connection

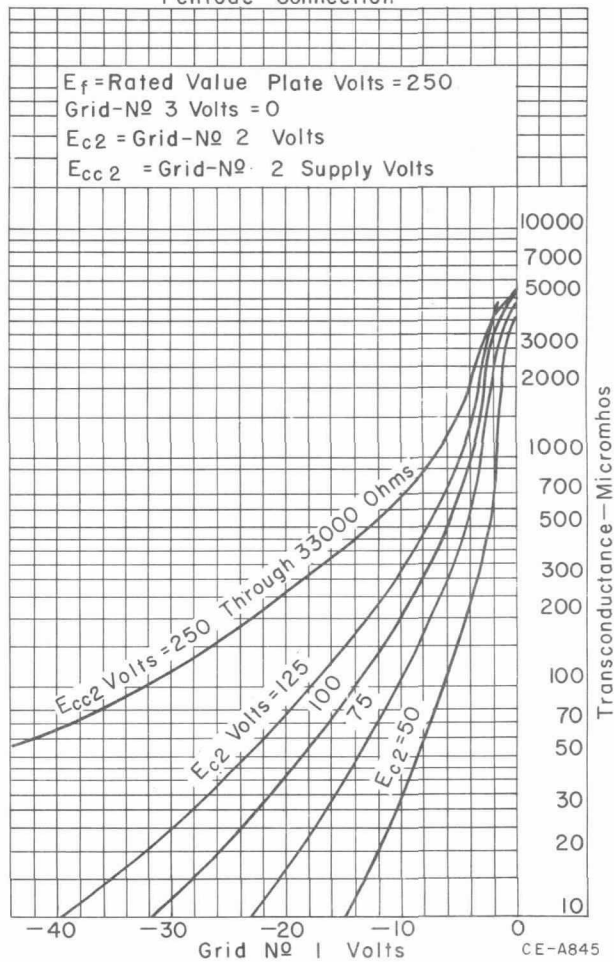


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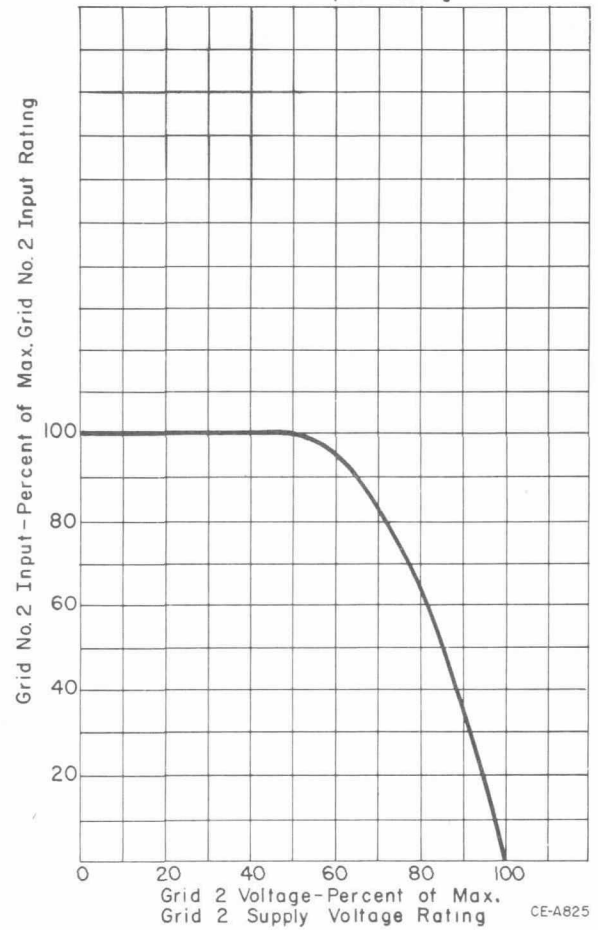




AVERAGE CHARACTERISTICS Pentode Connection



Grid 2 Input Rating



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