

SHARP CUTOFF TETRODE TYPES 2CY5, 3CY5, 4CY5 and 6CY5

The 2CY5, 3CY5, 4CY5 and 6CY5 are miniature sharp cutoff tetrodes designed particularly for service in VHF tuners of television receivers. The structural and process features of these tubes provide improved gain-to-noise ratio. The high input impedance permits a most favorable gain-bandwidth factor. The high input impedance is made possible in part by use of two cathode leads, while high plate current to screen current ratio contributes to low noise output. These high performance tubes are further designed to operate with the relatively low plate and screen potentials encountered in series string sets.

The 2CY5, 3CY5 and 4CY5 have 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 each is employed in this type of circuit with other tubes similarly designed having the same heater current rating, heater voltage surges across individual tubes are minimized inasmuch as heater warm-up characteristic is controlled.

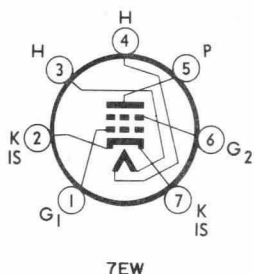
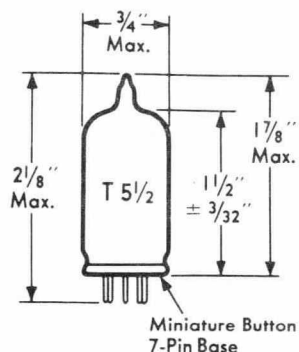
ELECTRICAL:

Cathode	Coated Unipotential				
Heater:	2CY5	3CY5	4CY5	6CY5	
Voltage (ac or dc) ..	2.4	2.9	4.5	6.3	Volts
Current	0.6	0.45	0.30	0.20	Ampere
Warm-up Time ▲	11	11	11	..	Seconds
Direct Interelectrode Capacitance (Shielded)*:					
Grid 1 to Plate				0.030	max. uuf
Input				4.4	uuf
Output				2.80	uuf

MECHANICAL:

Bulb	T-5-1/2
Base	Miniature 7-Pin (JETEC E7-1)
Outline	5-2
Basing	7EW
Mounting Position	Any

▲ 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 four times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three times rated heater voltage divided by rated heater current.



MAXIMUM RATINGS:

Design Maximum Values**

Plate Voltage	180	max. Volts
Grid 2 (Screen) Supply Voltage	180	max. Volts
Grid 2 Voltage	See Grid 2 Input Rating Chart	
Plate Dissipation	2.0	max. Watts
Grid 2 Dissipation	0.5	max. Watts
Grid 1 (Control Grid) Voltage:		
Positive Value	0	max. Volts
Cathode Current	20	max. Ma.
Heater-Cathode Voltage:		

Heater Negative with Respect to Cathode:

	2,3,4CY5	6CY5
Total DC and Peak	200	100
Heater Positive with Respect to Cathode:		
DC	100	50
Total DC and Peak	200	100
Grid Circuit Resistance	.5 Megohm	

CHARACTERISTICS & TYPICAL OPERATION:

Plate Voltage	125	Volts
Grid 2 Voltage	80	Volts
Grid 1 Voltage	-1	Volts
Plate Resistance	0.125	Megohm
Transconductance	8000	umhos
Grid 1 Cutoff Bias #	-6	Volts
Plate Current	10	Ma.
Grid 2 Current	1.4	Ma.

* With JETEC shield no. 316 connected to cathode.

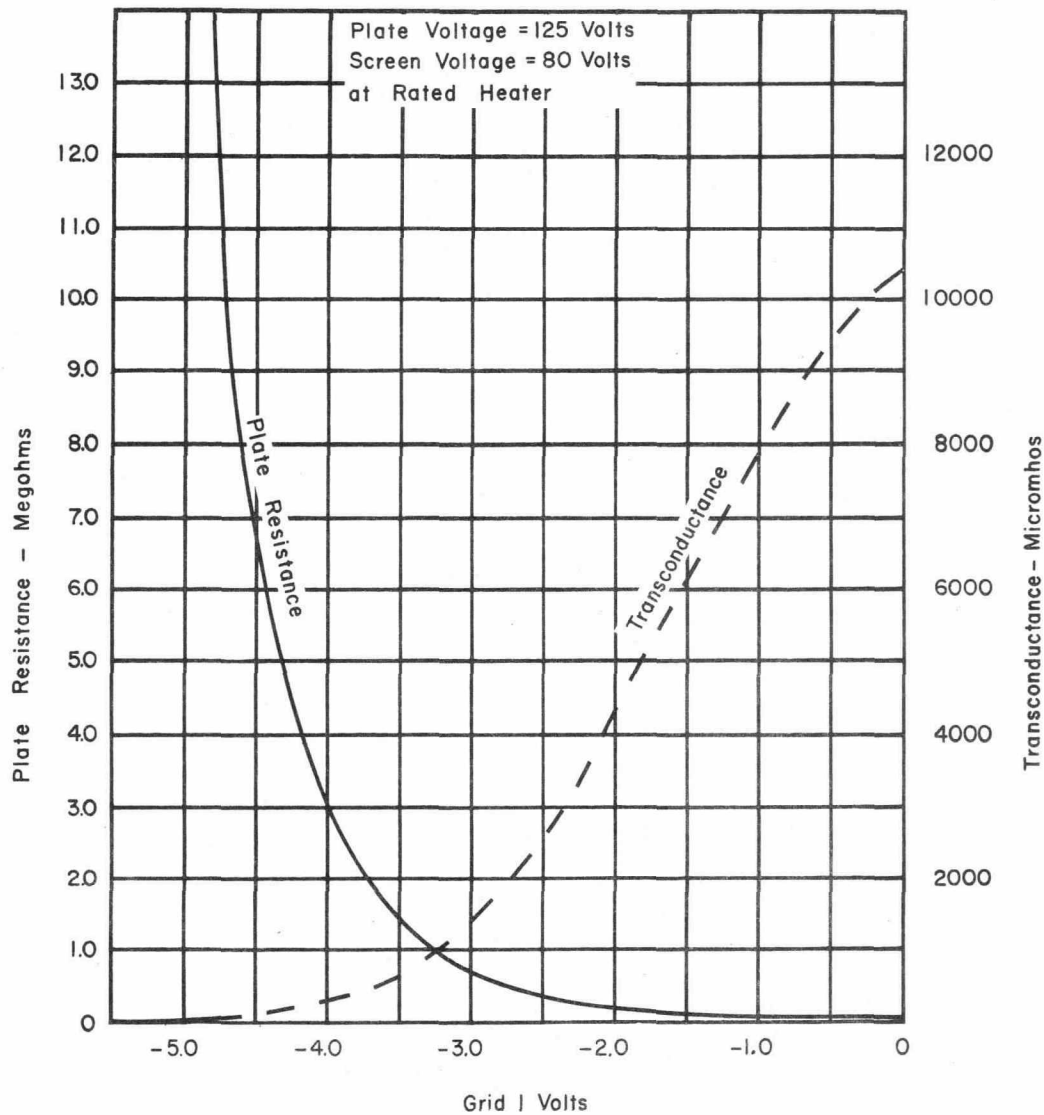
For Plate Current of 20 ua.

**Design-Maximum ratings are limiting values of operating and environmental conditions applicable to a bagey electron device of a specified type as defined by its published data, and should not be exceeded under the worst probable conditions.

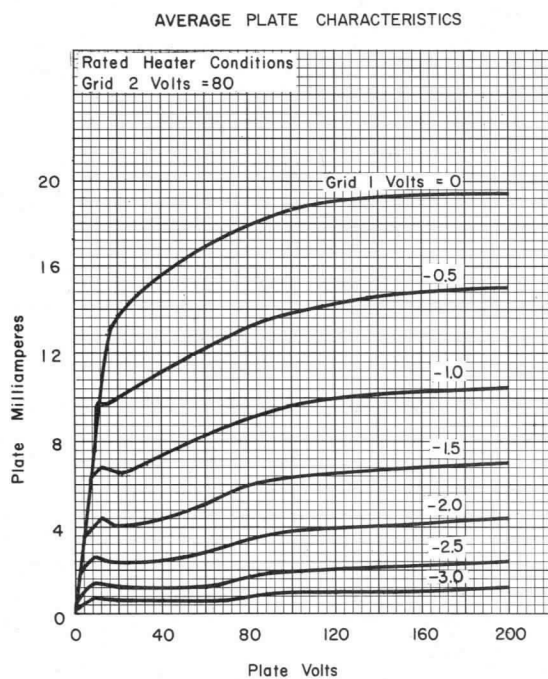
The device manufacturer chooses these values to provide acceptable serviceability of the device, taking responsibility for the effects of changes in operating conditions due to variations in device characteristics.

The equipment manufacturer should design so that initially and throughout life no design-maximum value for the intended service is exceeded with a bagey device under the worst probable operating conditions with respect to supply-voltage variation, equipment component variation, equipment control adjustment, load variation, signal variation, and environmental conditions.

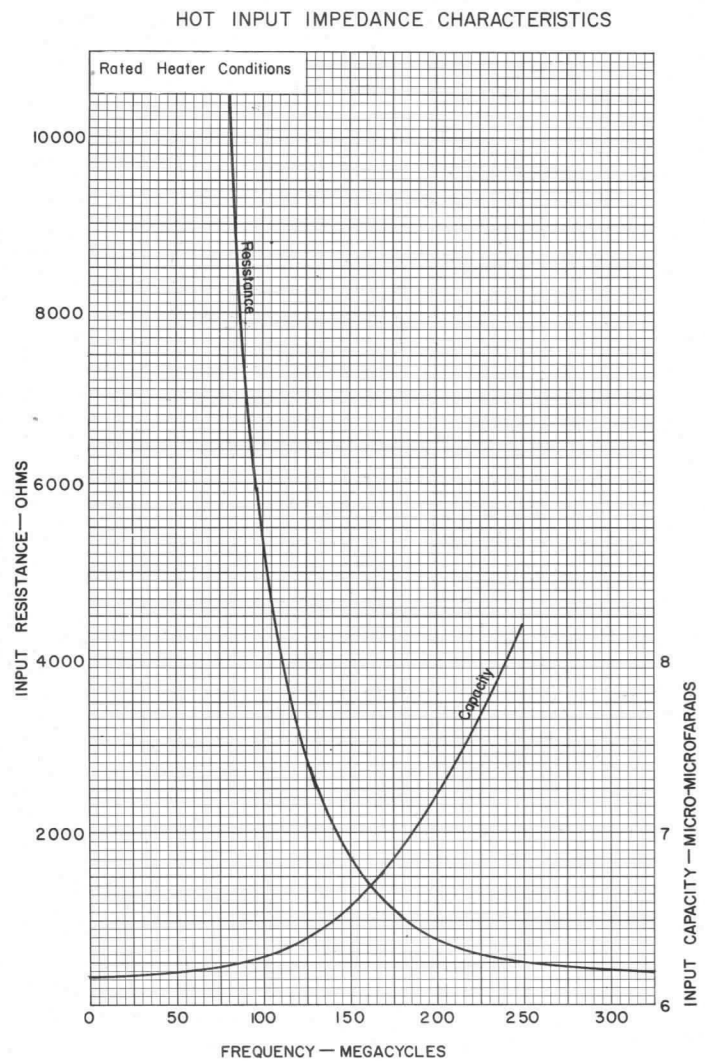
AVERAGE CHARACTERISTICS



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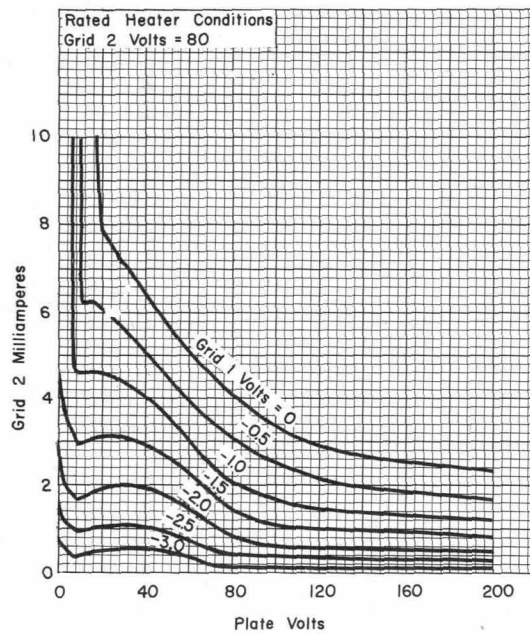


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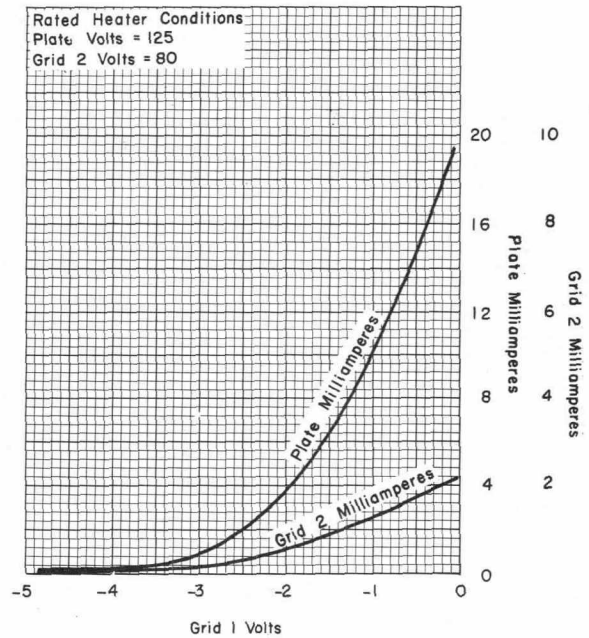
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AVERAGE GRID 2 CHARACTERISTICS

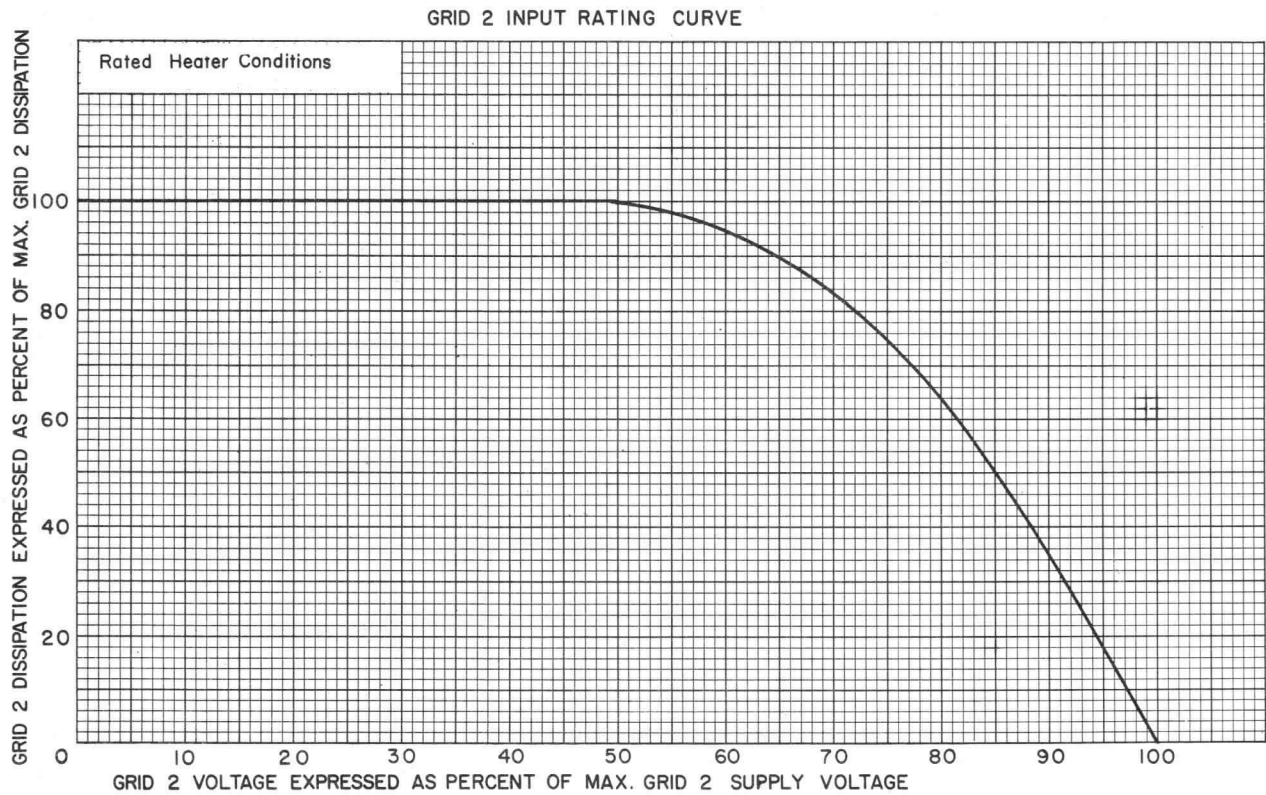


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AVERAGE TRANSFER CHARACTERISTICS



CE-A1256R2



2CY5
3CY5
4CY5
6CY5

Westinghouse®

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