

HIGH-MU TRIODE-SHARP-CUTOFF PENTODE TYPE 6AW8-A AND 8AW8-A

The 6AW8-A and 8AW8-A are 9-pin miniature high-mu triode and sharp-cutoff pentode types designed for service in series heater string television receivers. The triode unit is intended for service as a sync separator while the pentode unit is designed for operation as a video amplifier.

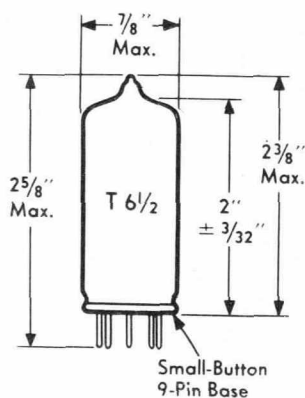
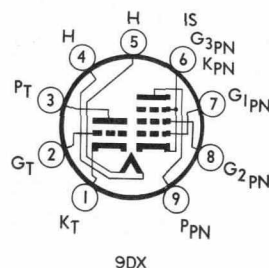
The 6AW8-A and 8AW8-A have been designed for use in receivers which employ series connected heaters, especially in television receivers where the picture-tube heater is in series with other heaters. When each is employed in this type of circuit with other tubes similarly designed having the same heater current rating, heater voltage surges across individual tubes are minimized inasmuch as heater warm-up characteristic is controlled.

ELECTRICAL:

Cathodes	Coated Unipotential	
Heater:	6AW8-A	8AW8-A
Voltage (ac or dc)	6.3	8.4 Volts
Current	0.60 ± 6%	0.45 ± 6% Ampere
Warm-up Time (Approx.) ▲	11	11 Seconds
Direct Interelectrode Capacitances:		
Triode	Shielded▲	Unshielded
Grid to Plate	2.2	2.2 μμf
Input	3.4	3.2 μμf
Output	3.0	1.8 μμf
Pentode		
Grid 1 to Plate	0.04	0.05 max. μμf
Input	10	10 μμf
Output	4.5	3.6 μμf
Coupling		
Pentode Grid 1 to Triode		
Plate	.005	.008 max. μμf
Pentode Plate to Triode		
Plate	0.025	0.15 max. μμf

MECHANICAL:

Bulb	T-6½
Base	Miniature 9-Pin (JEDEC E9-1)
Outline	6-3
Basing	9DX
Mounting Position	Any



MAXIMUM RATINGS

Design Maximum Values

	Triode	Pentode	
	Unit	Unit	
Plate Voltage	330	330	max. Volts
Grid 2 Supply Voltage	--	330	max. Volts
Grid 2 Voltage	--	--	See Grid 2 Input Rating Curve
Plate Dissipation	1.1	3.75	max. Watts
Grid 2 Dissipation	--	1.1	max. Watts
Positive Grid 1 Voltage	0	0	max. Volts
Grid 1 Circuit Resistance			
Fixed Bias	0.5	0.25	max. Megohm
Cathode Bias	1.0	1.0	max. Megohm
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

TYPICAL OPERATING CHARACTERISTICS

	Triode	Pentode	
Plate Voltage	200	200 65	Volts
Grid 2 Voltage	--	150 150	Volts
Grid 1 Voltage	-2	-- 0	Volts
Cathode Bias Resistor	--	150 --	Ohms
Amplification Factor	70	-- --	
Plate Resistance (Approx.)	--	200000 --	Ohms
Transconductance	4000	9500 --	μmhos
Plate Current	4.0	15 46□	Ma.
Grid 2 Current	--	3.5 15□	Ma.
Grid 1 Cutoff Voltage⊕	-5	-8 --	Volts

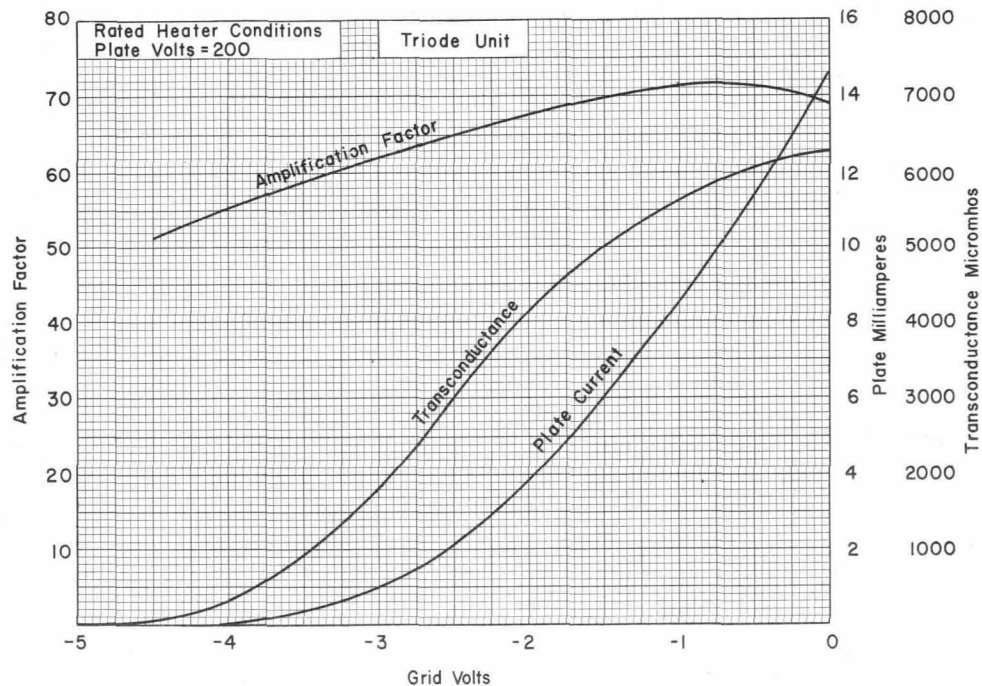
▲ Shield No. 315 tied to cathode of section under test.

▲ 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.

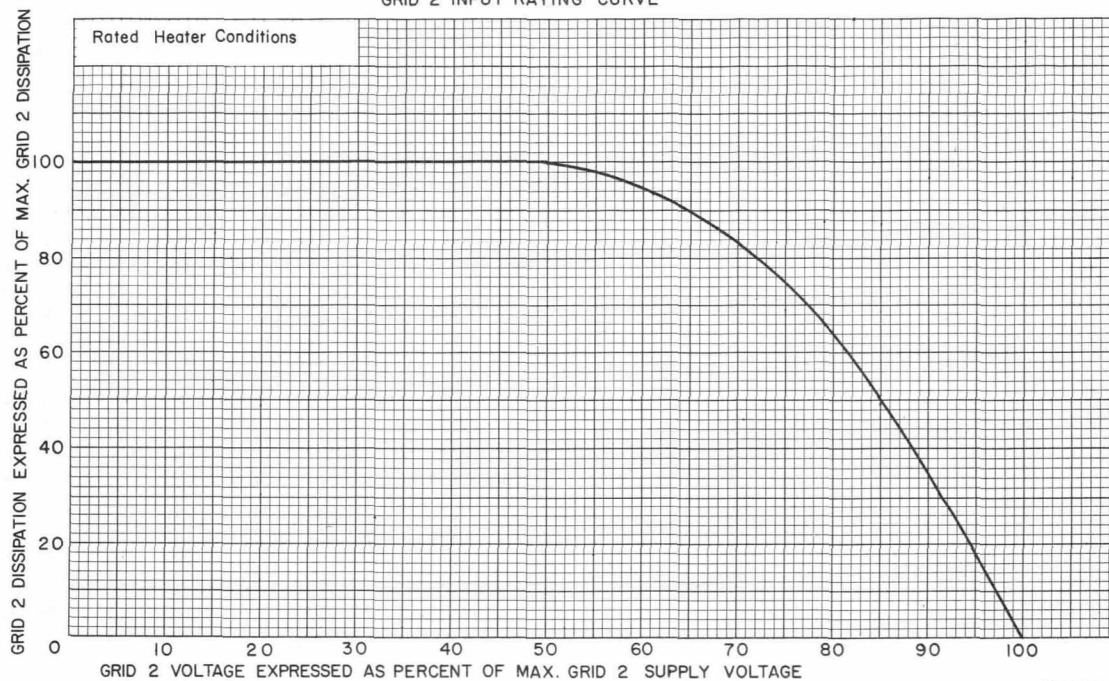
⊕ For plate current of 20 microamperes.

□ These values can be measured by a method involving a recurrent waveform such that the plate and grid 2 dissipation will be kept within ratings to prevent damage to the tube.

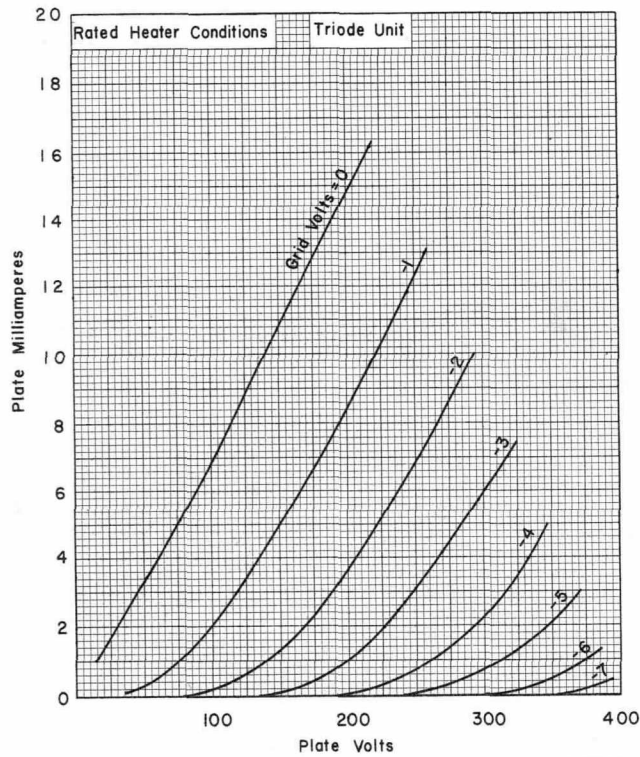
AVERAGE TRANSFER CHARACTERISTICS



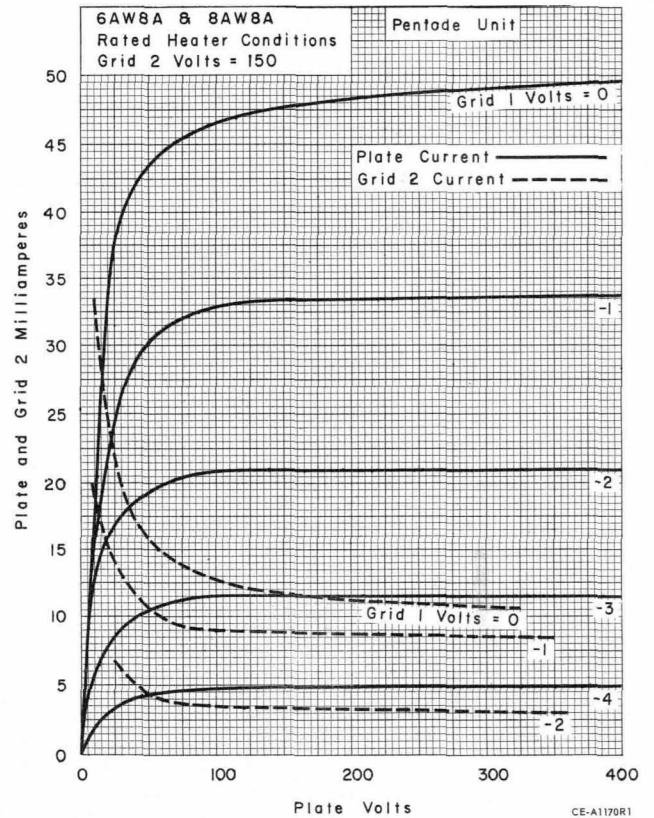
GRID 2 INPUT RATING CURVE



AVERAGE PLATE CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS

