

DUAL TRIODE TYPE 6EM7

The 6EM7 is a dual triode with dissimilar sections designed for use in television receivers. High mu triode No. 1 (Pins No. 4, 5 & 6) is designed for service as a vertical deflection oscillator. Triode No. 2 (Pins No. 1, 2 & 3) is designed for operation as a high efficiency vertical deflection output amplifier and has a low mu.

ELECTRICAL:

Cathodes	Coated Unipotential Heater:		
Voltage (ac or dc)	6.3 ± 10%	Volts	
Current	0.90	Ampere	
Direct Interelectrode Capacitances (Unshielded):			
	Unit 1	Unit 2	
Grid to Plate	4.8	10.0	μμf
Input	2.2	7.0	μμf
Output	0.6	1.8	μμf

MECHANICAL:

Bulb	T-9
Base	Short Intermediate Shell Octal (JEDEC B8-58)
Outline	9-37
Basing	8BD
Mounting Position	Any

⊕ Design-Maximum ratings are limiting values of operating and environmental conditions applicable to a bogey tube of a specified type as defined by its published data, and should not be exceeded under the worse probable conditions.

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

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

MAXIMUM RATINGS:

Design Maximum Values (except as noted)⊕

	Triode No. 1 as Vertical Deflection Oscillator	Triode No. 2 as Vertical Deflection Amplifier§	
Plate Voltage	330	330	max. Volts
Peak Positive Pulse Plate Voltage (Abs.Max.) ..	--	1500	max. Volts
Peak Negative Pulse Grid Voltage	400	250	max. Volts
Plate Dissipation Δ	1.5	10	max. Watts
Cathode Current	22	50	max. Ma.
Peak Cathode Current ...	77	175	max. Ma.
Heater-Cathode Voltage Heater Negative with Respect to Cathode Total DC and Peak ...	200	200	max. Volts
Heater Positive with Respect to Cathode DC Component	100	100	max. Volts
Total DC and Peak ...	200	200	max. Volts
Grid Circuit Resistance ..	2.2	2.2	max. Meg.

CHARACTERISTICS AND TYPICAL OPERATION:

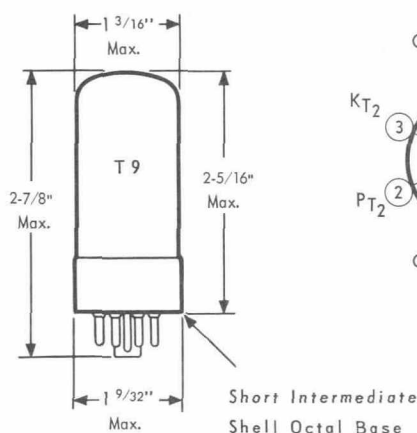
	Triode No. 1	Triode No. 2	
Plate Voltage	250	150 60	Volts
Grid Voltage	-3	-20 0	Volts
Plate Current	1.4	50 95	Ma.
Plate Resistance	40000	750 --	Ohms
Transconductance	1600	7200 --	μmhos
Amplification Factor	68	5.4 --	
Grid Voltage for Plate Current of 10 Ma.	--	-28 --	Volts
Grid Cutoff Voltage	-5.5★	-45♣ --	Volts

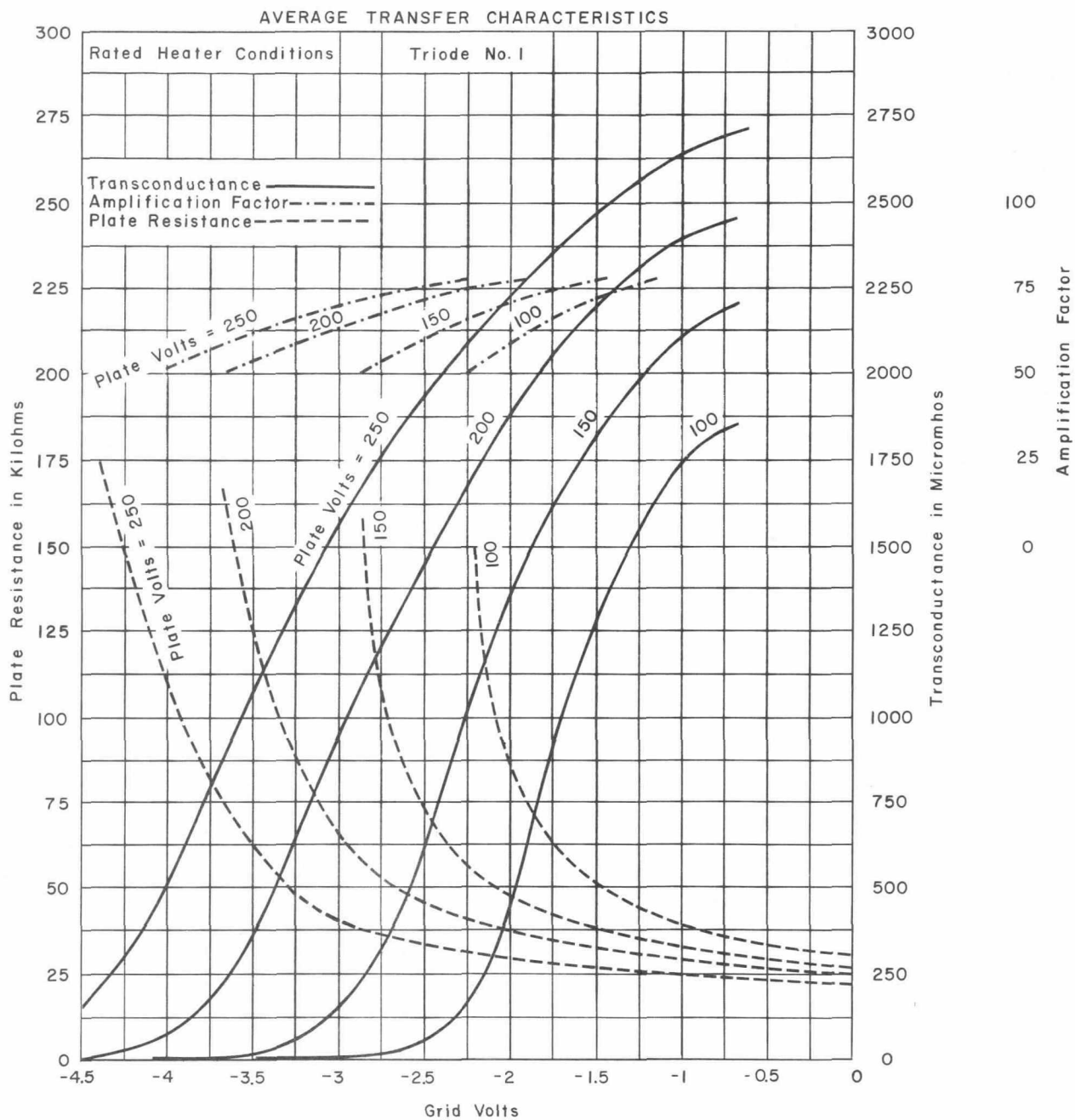
★ For Plate Current of 10 microamperes.

♣ For Plate Current of 100 microamperes.

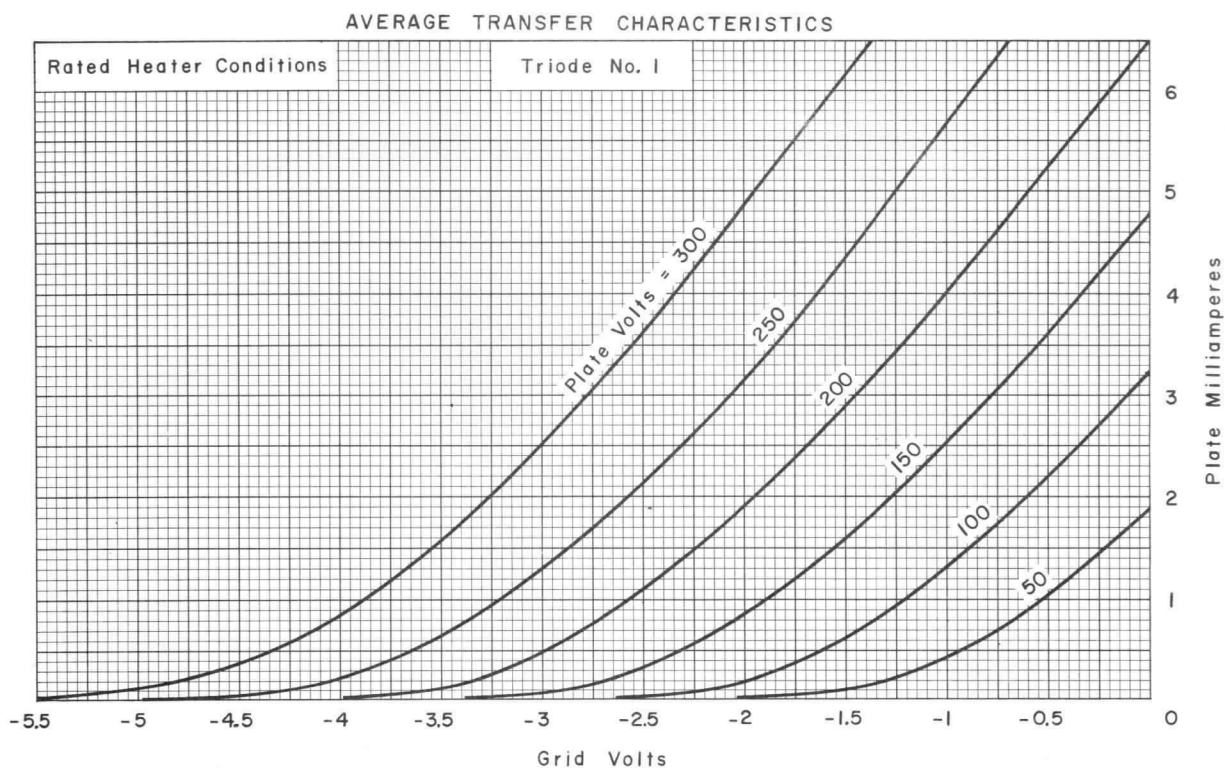
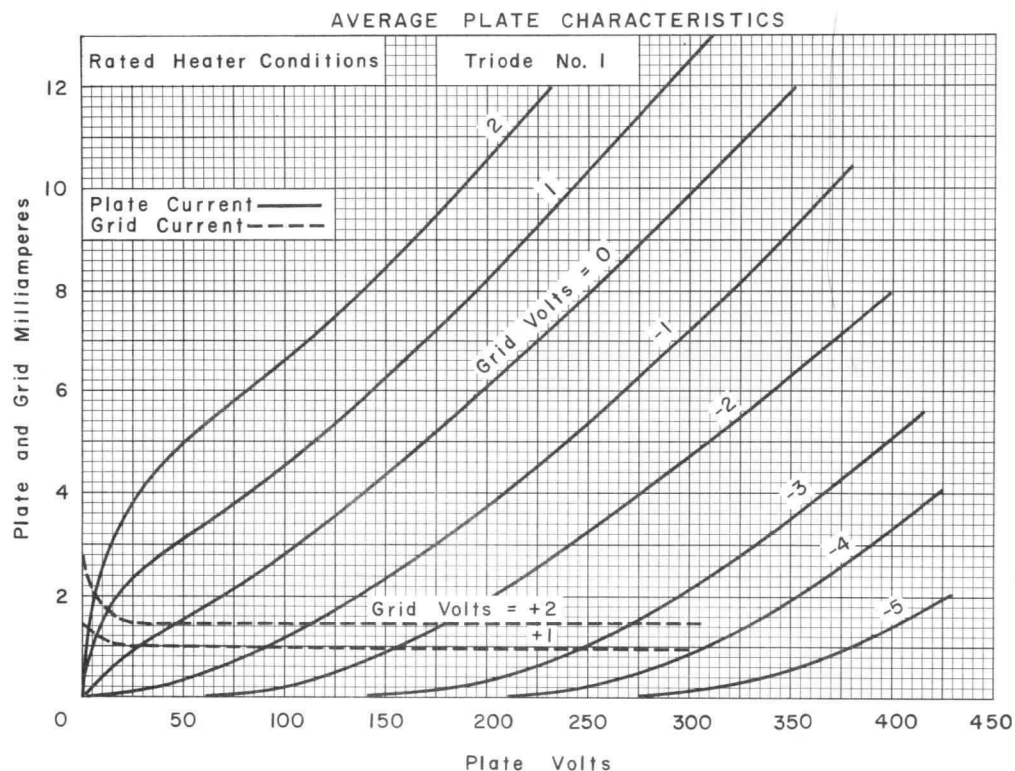
▲ In stages operating with grid leak bias, an adequate cathode bias resistor or other suitable means is required to protect the tube in the absence of excitation.

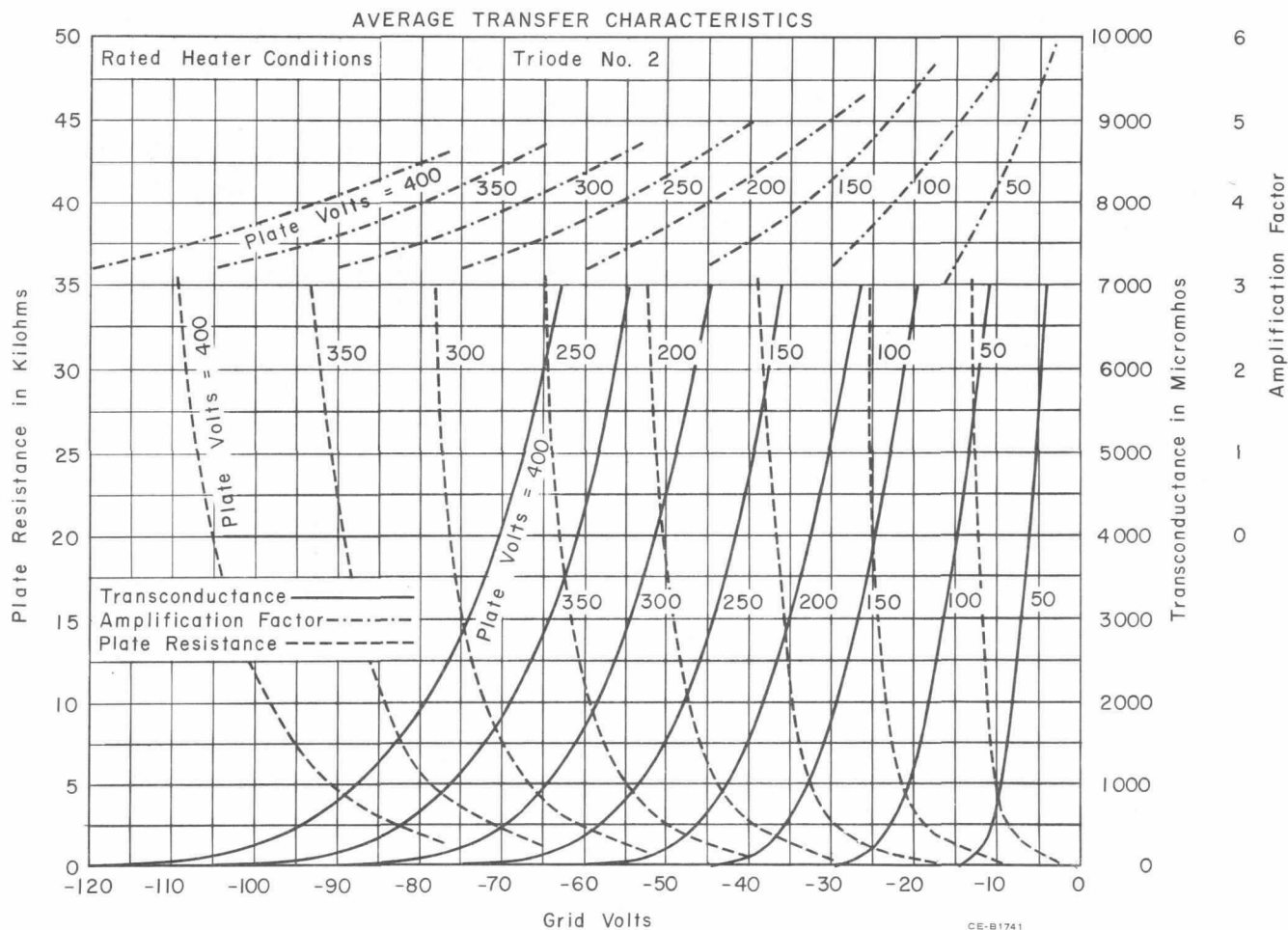
§ For operation in a 525-line, 30-frame system as described in "Standards of Good Engineering Practice for Television Broadcasting Station, Federal Communications Commission". The duty cycle of the voltage pulse must not exceed 15 per cent of one scanning cycle.

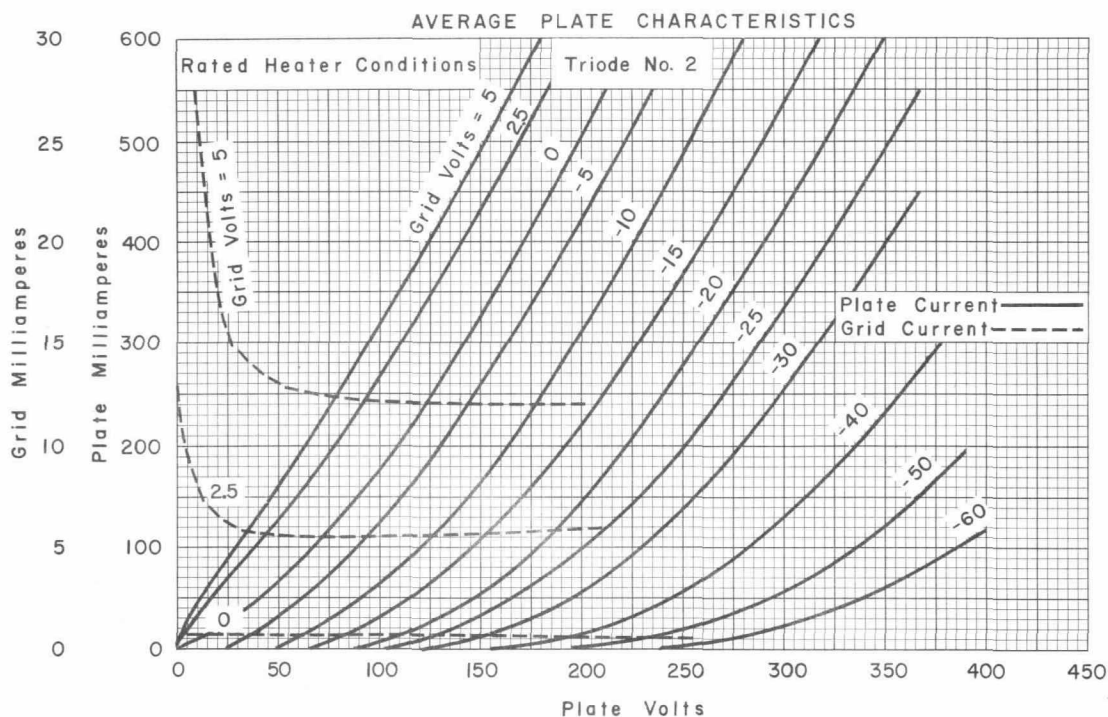




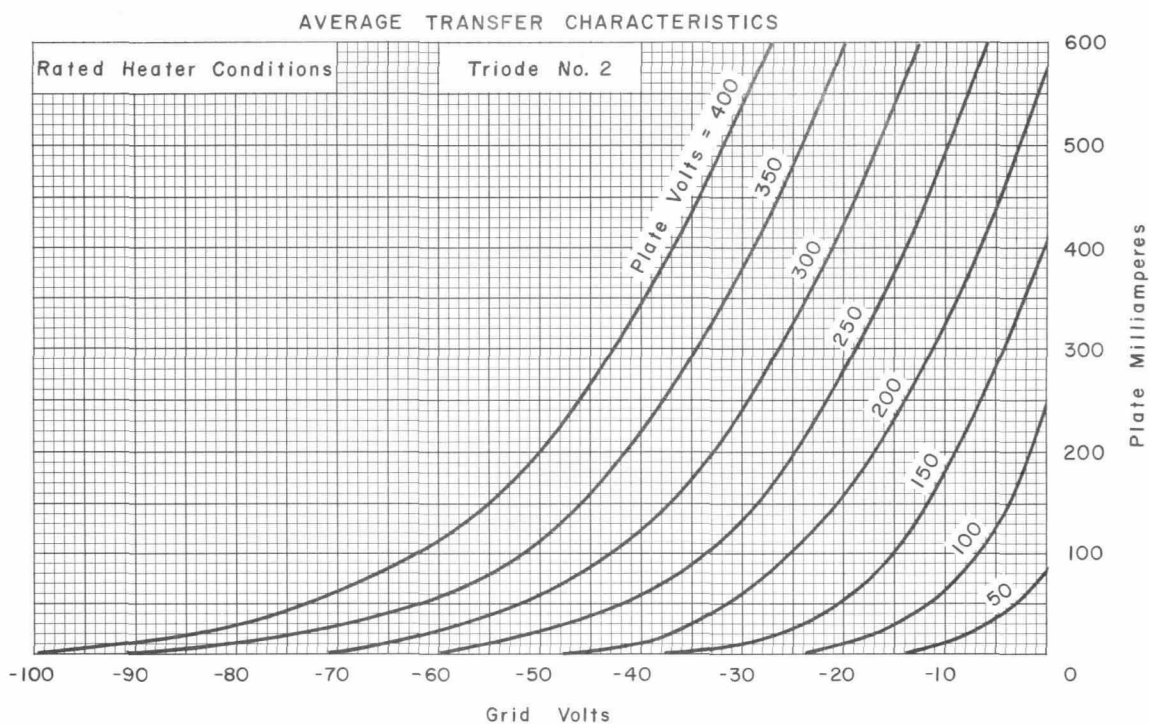
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