

TUNG-SOL

HEPTODE

MINIATURE TYPE

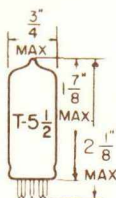
COATED UNIPOTENTIAL CATHODE

HEATER

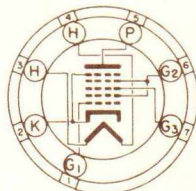
3.15 VOLTS 0.6 AMP

AC OR DC

ANY MOUNTING POSITION



GLASS BULB



BOTTOM VIEW

MINIATURE BUTTON
7 PIN BASE

7CH

THE 3CS6 IS A MINIATURE DUAL CONTROL PENTAGRID DESIGNED FOR USE IN SYNC SEPARATOR CIRCUITS IN 600 MA. SERIES HEATER OPERATED TELEVISION RECEIVERS. EACH OF THE CONTROL GRIDS HAVE A SHARP CUT-OFF CHARACTERISTIC. THERMAL CHARACTERISTICS OF THE HEATER ARE CONTROLLED SUCH THAT HEATER VOLTAGE SURGES DURING THE WARM-UP CYCLE ARE MINIMIZED PROVIDED IT IS USED WITH OTHER TYPES WHICH ARE SIMILARLY CONTROLLED. EXCEPT FOR HEATER RATINGS, ITS CHARACTERISTICS ARE IDENTICAL TO THE 6CS6.

DIRECT INTERELECTRODE CAPACITANCES — APPROX.

GRID #1 TO PLATE: G_1 TO P (MAX.)	0.05	μf
GRID #3 TO PLATE: G_3 TO P (MAX)	0.36	μf
#1 INPUT: G_1 TO (H+K+ G_2 + G_3 +5)	5.5	μf
#3 INPUT: G_3 TO (H+K+ G_1 + G_2 +5)	7.0	μf
OUTPUT: P TO (H+K+ G_1 + G_2 + G_3 +5)	7.5	μf
COUPLING: G_1 TO G_3 (MAX.)	0.22	μf

RATINGS ←

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

DESIGN CENTER VALUES

HEATER VOLTAGE	3.15	VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE:		
HEATER NEGATIVE		
TOTAL DC AND PEAK	200	VOLTS
HEATER POSITIVE	100	VOLTS
DC	200	VOLTS
TOTAL DC AND PEAK	300	VOLTS
MAXIMUM PLATE VOLTAGE		
MAXIMUM GRID #2 & #4 VOLTAGE ^A	300	VOLTS
MAXIMUM GRID #2 & #4 SUPPLY VOLTAGE		
MAXIMUM PLATE DISSIPATION		
MAXIMUM SCREEN DISSIPATION:		
FOR GRIDS #2 & #4 VOLTAGE UP TO 150 VOLTS	1.0	VOLTS
FOR GRIDS #2 & #4 VOLTAGE BETWEEN 150 & 300 VOLTS ^A		
MAXIMUM CATHODE CURRENT	14	MA.
MAXIMUM GRID #1 CIRCUIT RESISTANCE	0.47	MEGOHM
MAXIMUM GRID #3 CIRCUIT RESISTANCE	2.2	MEGOHMS
HEATER WARM-UP TIME (APPROX.)*	11.0	SECONDS

^ASEE SCREEN DISSIPATION RATING CHART JEDEC #J5-C4-2.

→ INDICATES A CHANGE.

*HEATER WARM-UP TIME IS DEFINED AS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TO REACH 80% OF ITS RATED VOLTAGE AFTER APPLYING 4 TIMES RATED HEATER VOLTAGE TO A CIRCUIT CONSISTING OF THE TUBE HEATER IN SERIES WITH A RESISTANCE OF VALUE 3 TIMES THE NOMINAL HEATER OPERATING RESISTANCE.

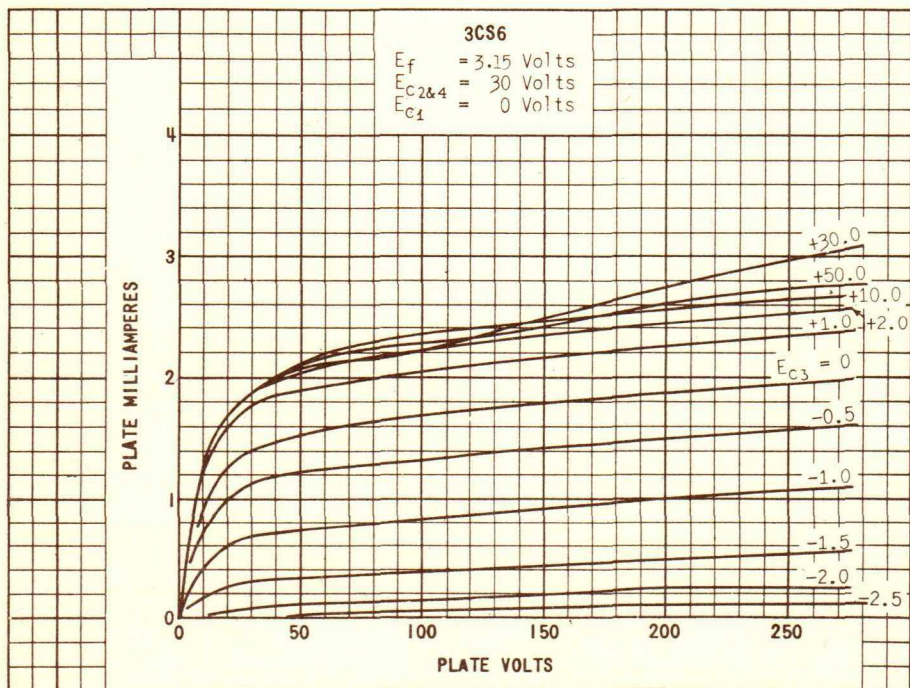
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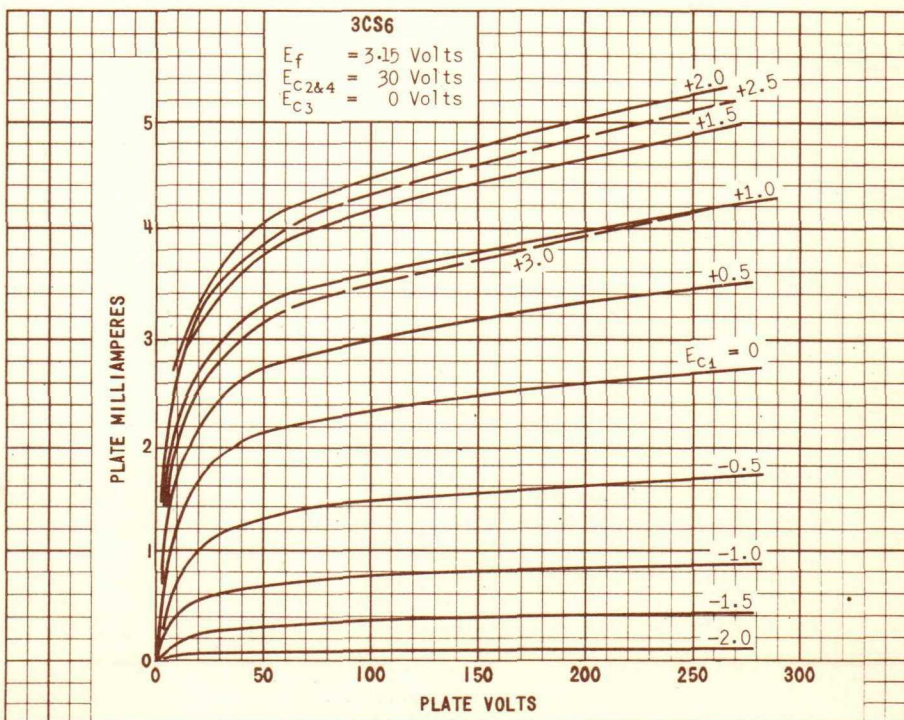
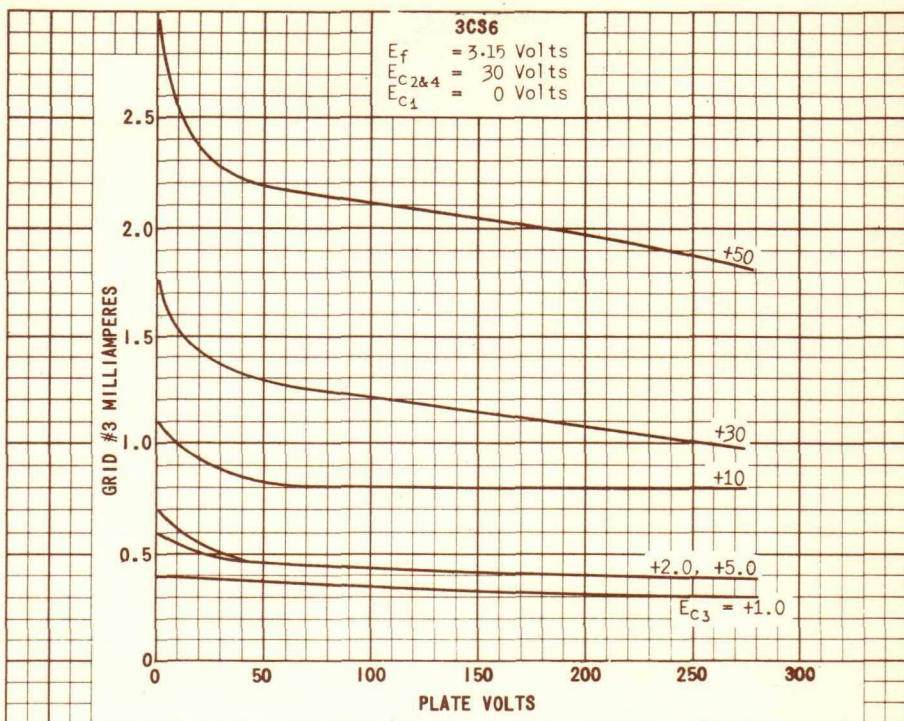
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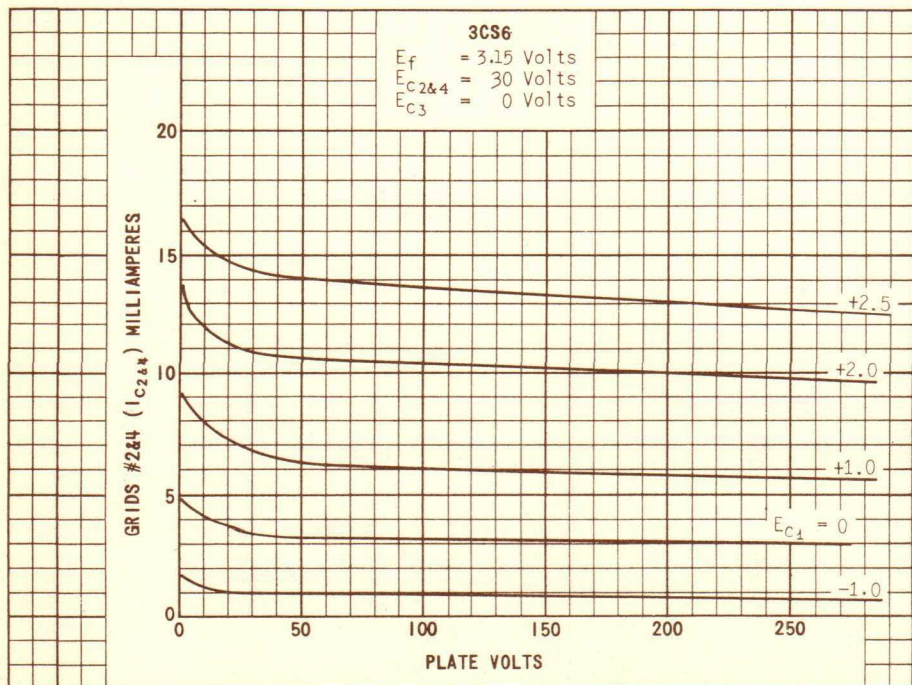
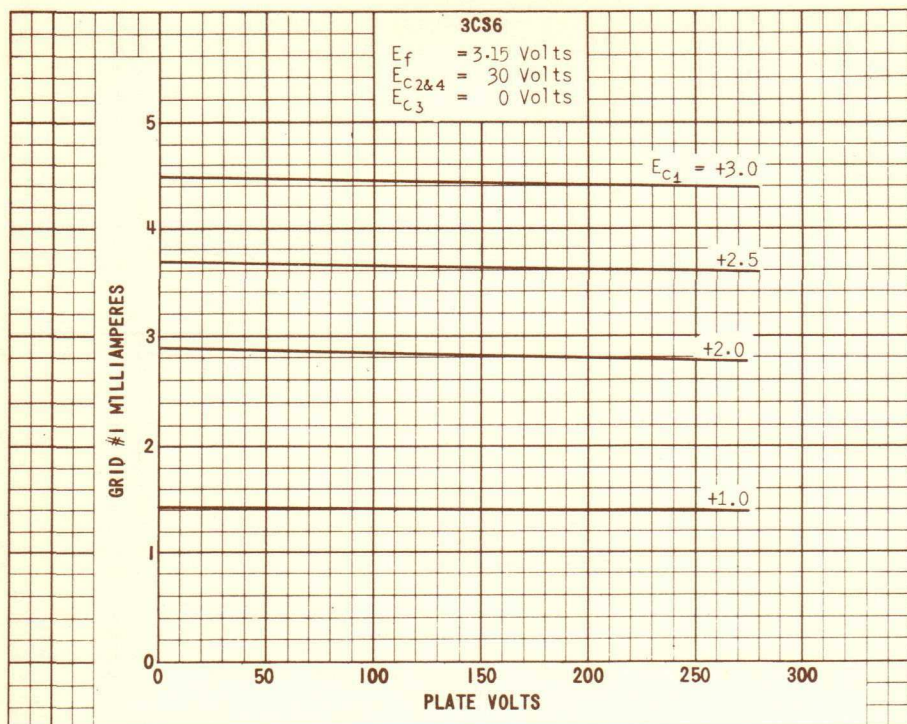
TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS
CLASS A₁ AMPLIFIER

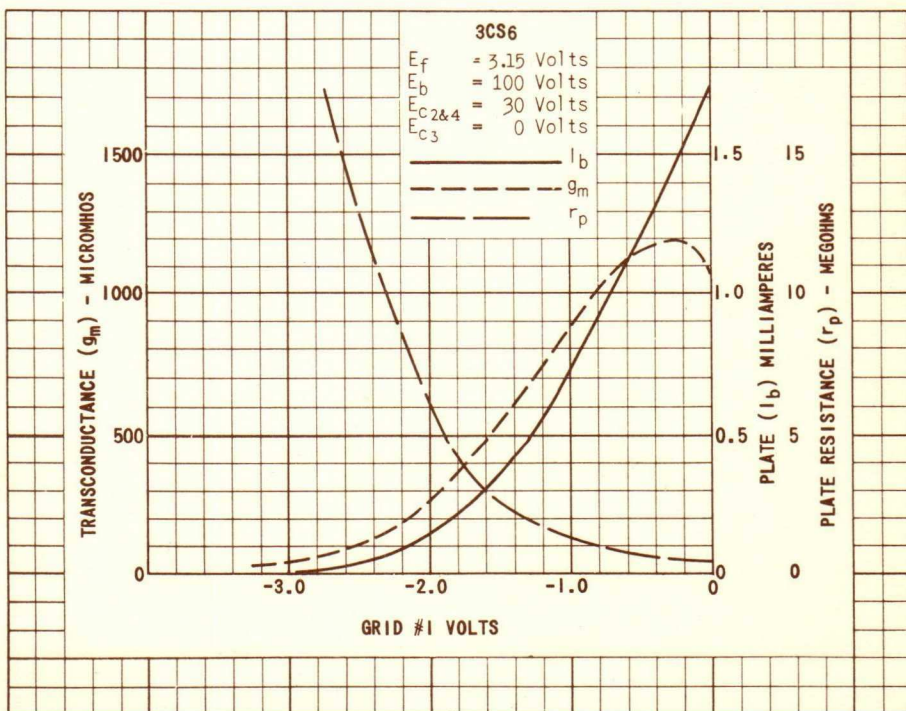
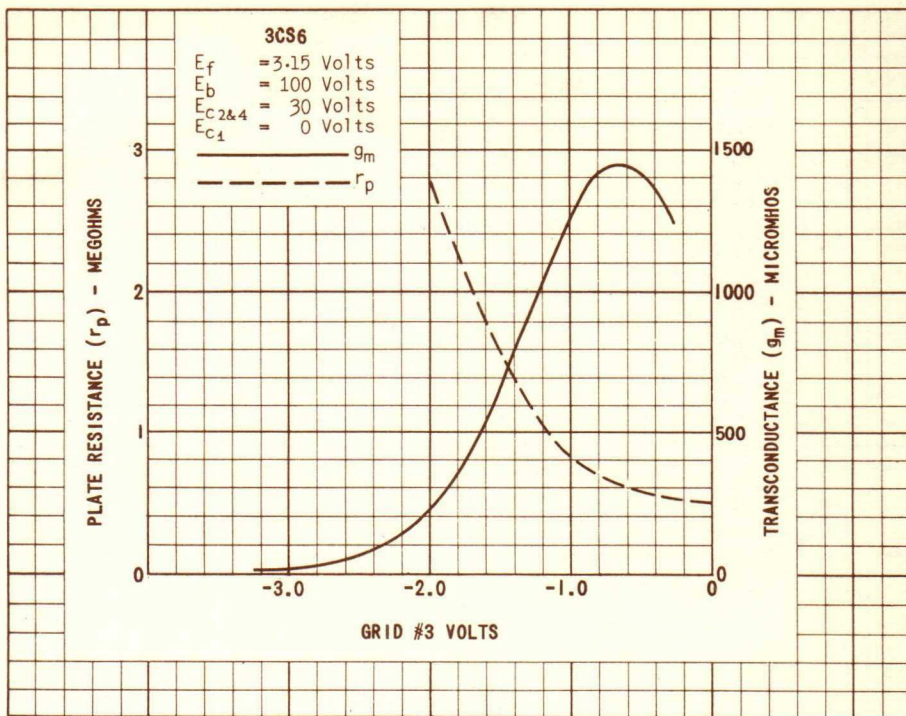
HEATER VOLTAGE	3.15	3.15	3.15	VOLTS
HEATER CURRENT	0.6	0.6	0.6	AMP.
PLATE VOLTAGE	10	100	100	VOLTS
GRID #2 & #4 VOLTAGE	30	30	30	VOLTS
GRID #1 VOLTAGE	0	0	-0	VOLTS
GRID #3 VOLTAGE	0	-1	0	VOLTS
PLATE CURRENT	2.0	0.8	1.0	MA.
GRID #2 & #4 CURRENT	4.5	5.5	1.3	MA.
TRANSCONDUCTANCE (MEASURED BETWEEN GRID #1 AND PLATE)	---	---	1 100	μ MHOS
TRANSCONDUCTANCE (MEASURED BETWEEN GRID #3 AND PLATE)	---	1 500	---	μ MHOS
PLATE RESISTANCE (APPROX.)	---	0.7	1.0	MEGOHM
GRID #1 VOLTAGE (APPROX.) FOR $I_b = 50 \mu A$	---	---	-2.5	VOLTS
GRID #3 VOLTAGE (APPROX.) FOR $I_b = 50 \mu A$	---	-2.2	---	VOLTS





3CS6





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