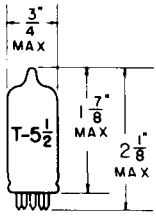
TUNG-SOL

TETRODE

MINIATURE TYPE



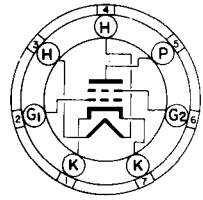
GLASS BULB

COATED UNIPOTENTIAL CATHODE

HEATER

6.3 VOLTS 0.18 AMP.

ANY MOUNTING POSITION



BOTTOM VIEW

THE 6ER5 IS A REMOTE CUT-OFF FRAME GRID TETRODE DESIGNED ESPECIALLY FOR V.H.F. TELEVISION TUNERS. SEPARATE CATHODE LEADS PROVIDE LOW LEAD INDUCTANCE; THE SCREEN GRID IS DESIGNED PRIMARILY AS A SHIELD TO REDUCE DIRECT GRID TO PLATE CAPACITANCE. EXCEPT FOR HEATER RATINGS THE 6ER5 IS IDENTICAL TO THE 2ER5 AND 3ER5.

DIRECT INTERELECTRODE CAPACITANCES

	WITHOUT SHIELD	WITH SHIELD	
INPUT	4.4	4.4	μμf
OUTPUT	3.0	4.0	μμf
GRID TO HEATER (MAX.)	0.28	0.28	μμf
PLATE TO CATHODE	0.24	0.20	μμf
CATHODE TO GRID	3.1	3.1	μμf
CATHODE TO HEATER	2.8	2.8	μμf
PLATE TO GRID	0.38	0.36	μμf

RATINGS

HEATER VOLTAGE	6.3	VOLTS
MAXIMUM SUPPLY VOLTAGE	550	VOLTS
MAXIMUM PLATE VOLTAGE	250	VOLTS
MAXIMUM GRID #2 VOLTAGE	100	VOLTS
MAXIMUM NEGATIVE GRID VOLTAGE	50	VOLTS
MAXIMUM GRID CIRCUIT RESISTANCE	1	MEGOHM
MAXIMUM DC CATHODE CURRENT	20	MA.
MAXIMUM HEATER CATHODE VOLTAGE	100	VOLTS
MAXIMUM HEATER CATHODE RESISTANCE	20 000	OHMS
MAXIMUM PLATE DISSIPATION	2.2	WATTS
MAXIMUM GRID #2 DISSIPATION	0.5	WATTS

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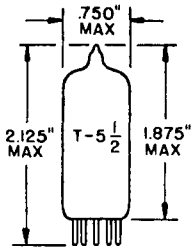
TRIODE

MINIATURE TYPE

FOR

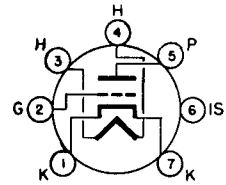
V.H.F. TELEVISION TUNERS



GLASS BULB
MINIATURE BUTTON
7 PIN BASE E7-1
OUTLINE DRAWING
JEDEC 5-2

COATED UNIPOTENTIAL CATHODE

ANY MOUNTING POSITION



BOTTOM VIEW
BASING DIAGRAM
JEDEC 7FP

THE 6ER5 IS A SEMI-REMOTE CUTOFF HIGH-MU SHIELDED TRIODE DESIGNED ESPECIALLY FOR V.H.F. TELEVISION TUNERS. SEPARATE CATHODE LEADS PROVIDE LOW LEAD INDUCTANCE. THE SHIELD REDUCES DIRECT GRID TO PLATE CAPACITANCE.

DIRECT INTERELECTRODE CAPACITANCES

	WITHOUT SHIELD	WITH SHIELD #315	
INPUT	4.4	4.4	pf
OUTPUT	3.0	4.0	pf
GRID TO HEATER (MAX.)	0.28	0.28	pf
PLATE TO CATHODE	0.24	0.20	pf
CATHODE TO GRID	3.1	3.1	pf
CATHODE TO HEATER	2.8	2.8	pf
PLATE TO GRID	0.38	0.36	pf

HEATER CHARACTERISTICS AND RATINGS

DESIGN CENTER VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS	6.3	VOLTS	180	MA.
LIMITS OF APPLIED VOLTAGE			6.3±0.6	VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE;				
HEATER NEGATIVE WITH RESPECT TO CATHODE				
TOTAL DC AND PEAK			200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE				
DC			100	VOLTS
TOTAL DC AND PEAK			200	VOLTS

MAXIMUM RATINGS

DESIGN CENTER VALUES - SEE EIA STANDARD RS-239

SUPPLY VOLTAGE	550	VOLTS
PLATE VOLTAGE	250	VOLTS
PLATE DISSIPATION	2.2	WATTS
NEGATIVE GRID VOLTAGE	50	VOLTS
GRID CIRCUIT RESISTANCE	1	MEGOHM
DC CATHODE CURRENT	20	MA.

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TUNG-SOL

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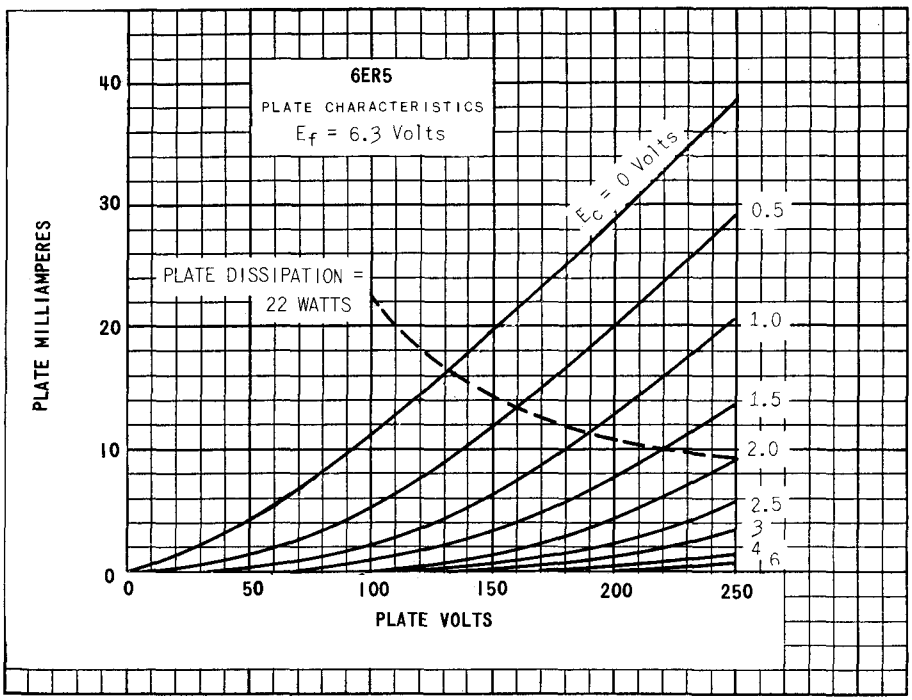
TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	0.18	AMP.
PLATE VOLTAGE	200	VOLTS
GRID #1 VOLTAGE	-1.2	VOLTS
GRID #2 VOLTAGE	0	VOLTS
PLATE CURRENT	10	MA.
GRID #2 CURRENT	0	MA.
PLATE RESISTANCE	8000	OHMS
TRANSCONDUCTANCE	10500	μMHOS
AMPLIFICATION FACTOR	80	
NEGATIVE GRID VOLTAGE (S = 5000 μMHOS)	3.8	VOLTS
NEGATIVE GRID VOLTAGE (S = 1000 μMHOS)	5.6	VOLTS

CROSS MODULATION

AC INPUT VOLTAGE (K = 1% S = 10,500 μMHOS)[A]	(MIN.)	100	MV
AC INPUT VOLTAGE (K = 1% S = 5,000 μMHOS)[A]		100	MV
AC INPUT VOLTAGE (K = 1% S = 1,000 μMHOS)[A]	(MIN.)	100	MV

[A] K = CROSS MODULATION FACTOR.



TUNG-SOL

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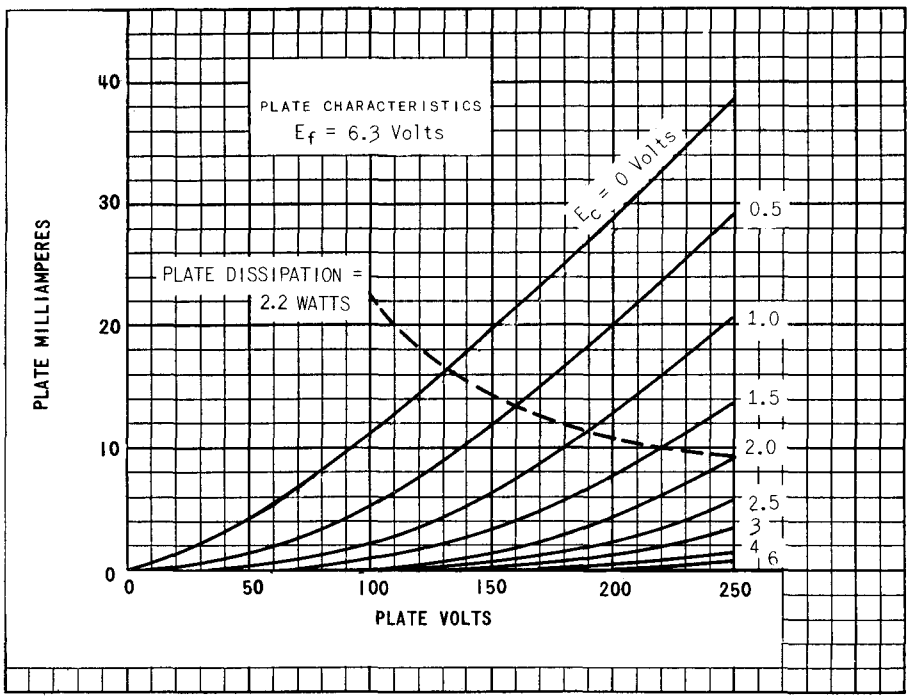
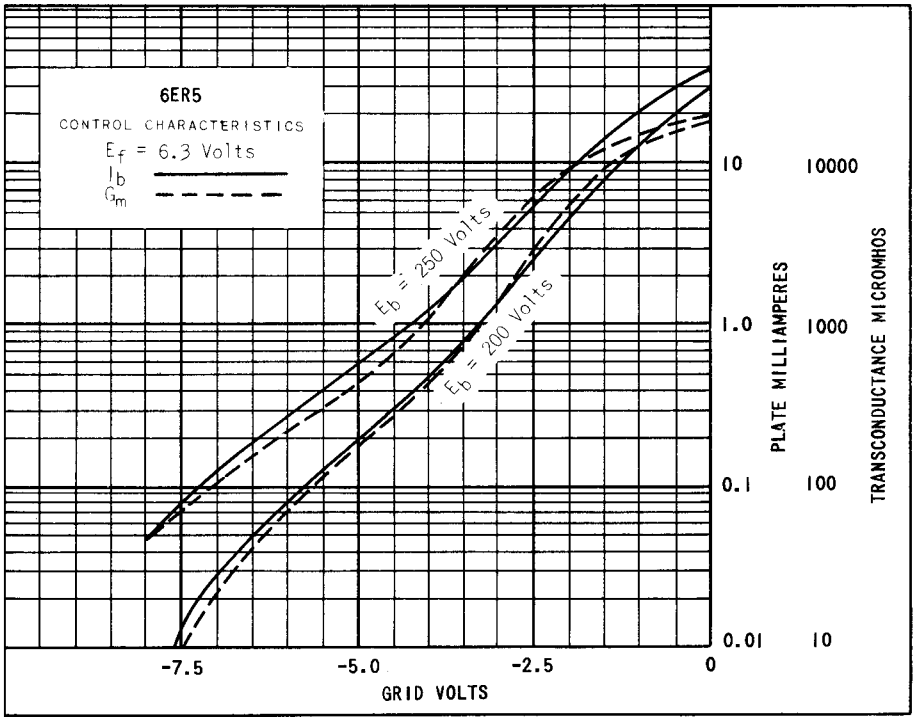
TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

PLATE VOLTAGE	200	VOLTS
GRID VOLTAGE	−1.2	VOLTS
PLATE CURRENT	10	MA.
TRANSCONDUCTANCE	10,500	μMHOS
AMPLIFICATION FACTOR	80	
PLATE RESISTANCE	8,000	OHMS
NEGATIVE GRID VOLTAGE (Gm = 5,000 μMHOS)	3.8	VOLTS
NEGATIVE GRID VOLTAGE (Gm = 1,000 μMHOS)	5.6	VOLTS





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