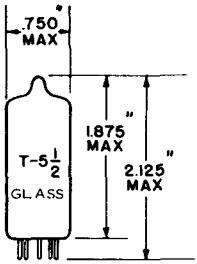
TUNG-SOL

PENTODE

MINIATURE TYPE

OUTLINE DRAWING
JEDEC 5-2



BASE 7 PIN BUTTON
JEDEC E7-1

FOR

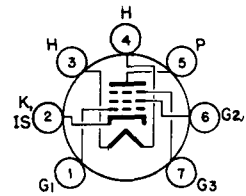
FM SOUND DETECTOR

SERVICE

COATED UNIPOTENTIAL CATHODE

ANY MOUNTING POSITION

BASING DIAGRAM
JEDEC 7EN



BOTTOM VIEW

THE 5GX6 IS A SHARP-CUTOFF PENTODE WITH DUAL CONTROL GRIDS IN THE 7 PIN MINIATURE CONSTRUCTION. IT IS DESIGNED PRIMARILY FOR FM SOUND DETECTOR - SERVICE. EXCEPT FOR HEATER CHARACTERISTICS AND RATINGS, THE 5GX6 IS IDENTICAL TO THE 6GX6.

DIRECT INTERELECTRODE CAPACITANCES
WITHOUT EXTERNAL SHIELD

GRID 1 TO PLATE	0.26	pf
GRID 1 TO (K & I.S., G3, G2, H)	8	pf
GRID 1 TO GRID 3	0.12	pf
GRID 3 TO PLATE	1.6	pf
GRID 3 TO (K & I.S., P, G2 G1, H)	6.5	pf

HEATER CHARACTERISTICS AND RATINGS
DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS	4.7 VOLTS	600	mA
HEATER WARM UP TIME		11	SECONDS
LIMITS OF SUPPLIED CURRENT		600 ±40	mA
PEAK HEATER - CATHODE VOLTAGE:			
HEATER POSITIVE WITH RESPECT TO CATHODE		200	VOLTS
DC COMPONENT		100	VOLTS
HEATER NEGATIVE WITH RESPECT TO CATHODE		200	VOLTS

CONTINUED ON FOLLOWING PAGE

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MAXIMUM RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

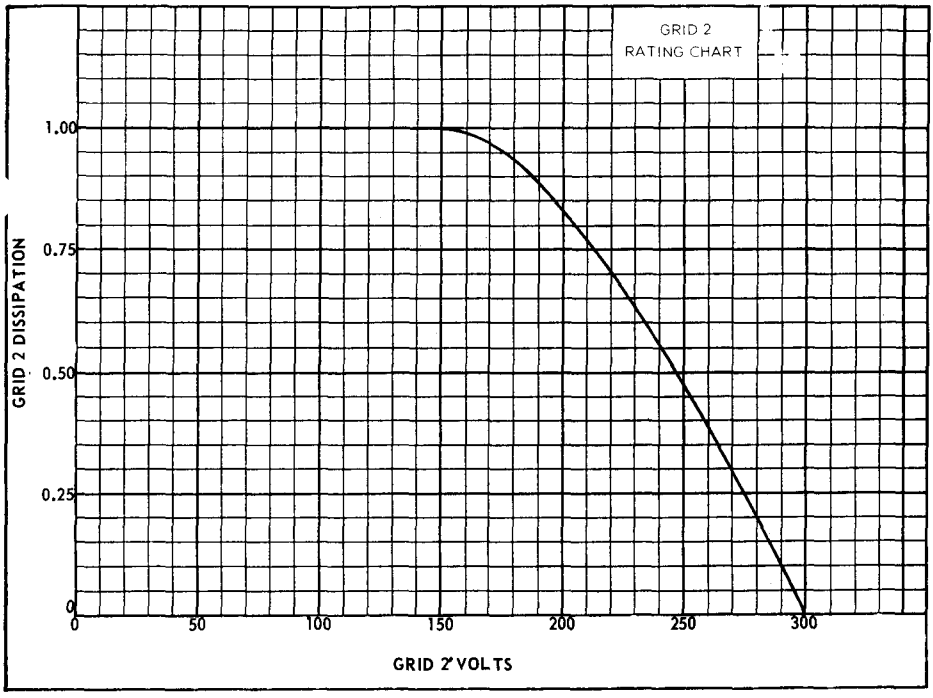
FM SOUND DETECTOR SERVICE

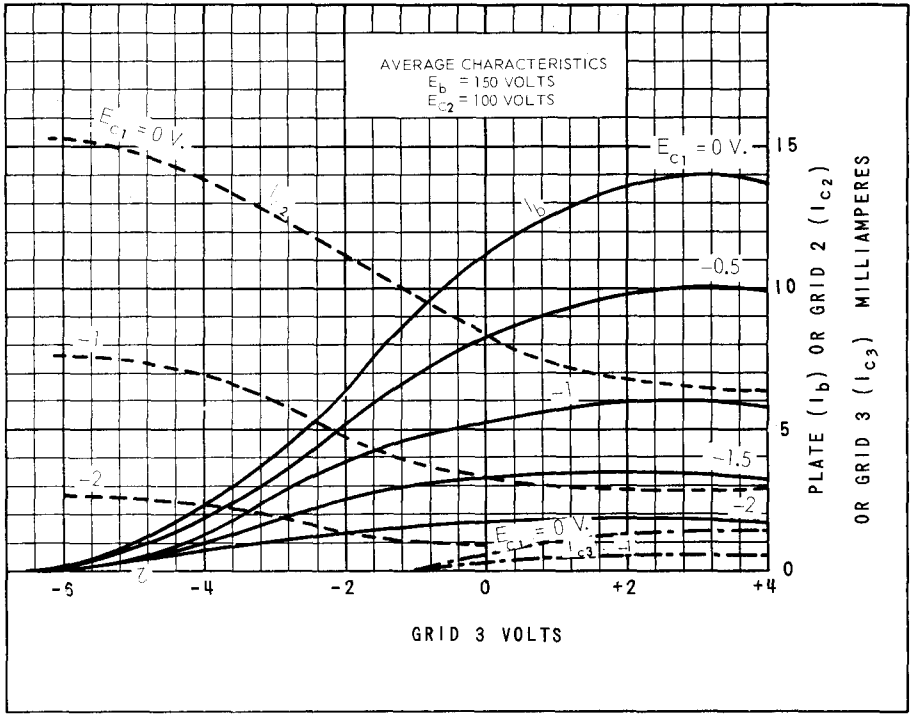
PLATE VOLTAGE	300	VOLTS
GRID 3 VOLTAGE:		
NEGATIVE VALUE - DC AND PEAK	100	VOLTS
POSITIVE VALUE - DC AND PEAK	25	VOLTS
GRID 2 SUPPLY VOLTAGE	300	VOLTS
GRID 2 VOLTAGE	SEE RATING CHART	
GRID 1 VOLTAGE:		
NEGATIVE - BIAS VALUE	50	VOLTS
POSITIVE - BIAS VALUE	0	VOLTS
GRID 3 INPUT	0.1	WATT
GRID 2 INPUT - UP TO 150 VOLTS	1	WATT
- BETWEEN 150 VOLTS AND 300 VOLTS	SEE RATING CHART	
PLATE DISSIPATION	1.7	WATTS
GRID 3 CIRCUIT RESISTANCE	0.68	MEGOHM
GRID 1 CIRCUIT RESISTANCE:		
FOR FIXED - BIAS OPERATION	0.22	MEGOHM
FOR CATHODE - BIAS OPERATION	0.47	MEGOHM

CHARACTERISTICS

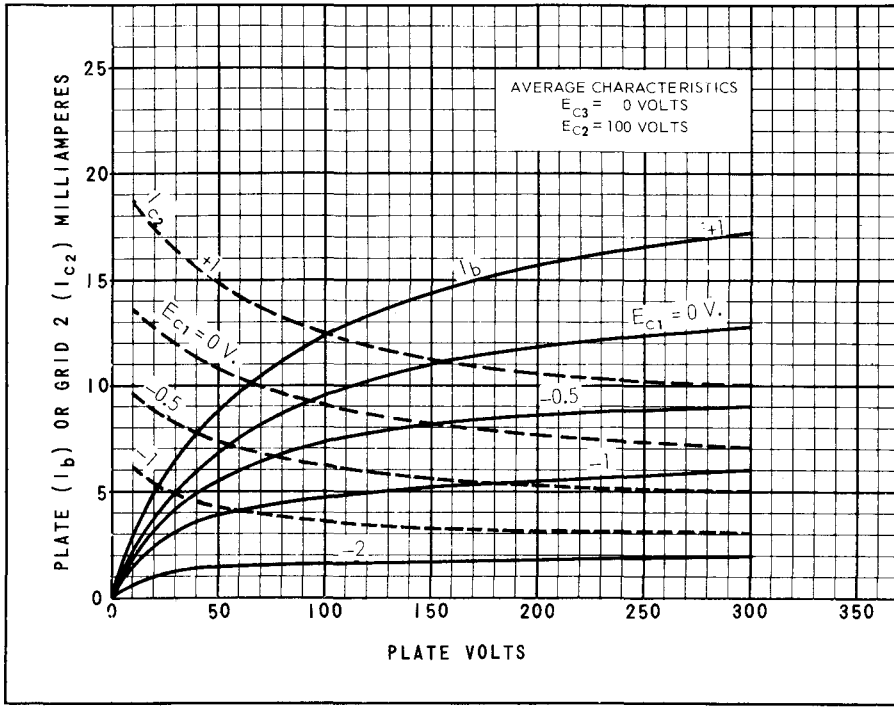
CLASS A_1 AMPLIFIER

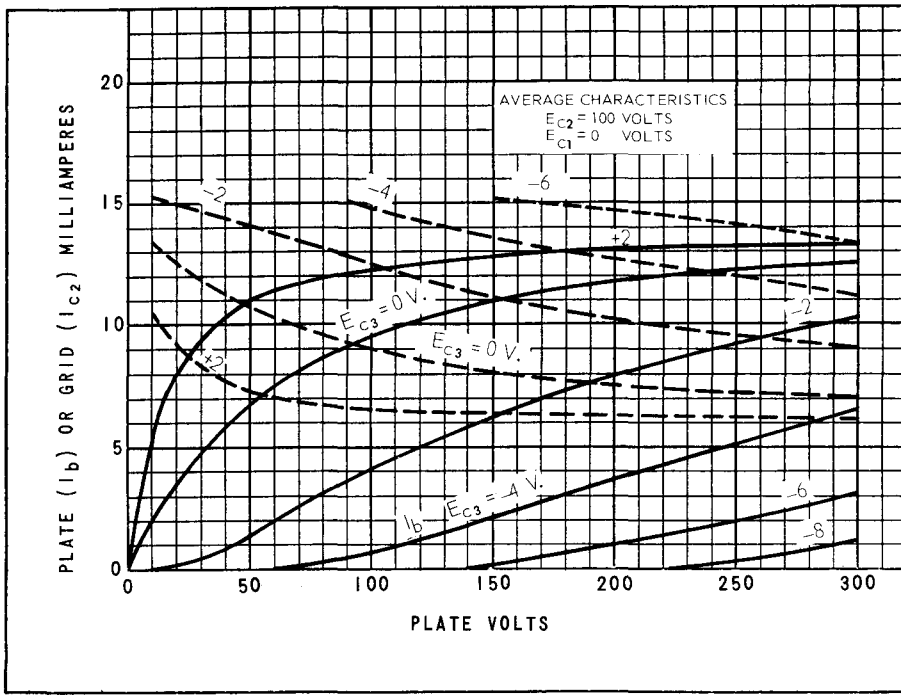
PLATE SUPPLY VOLTAGE		150	VOLTS
GRID 3 SUPPLY VOLTAGE		0	VOLTS
GRID 2 SUPPLY VOLTAGE		100	VOLTS
GRID 1 SUPPLY VOLTAGE		0	VOLTS
CATHODE RESISTOR		180	OHMS
PLATE CURRENT		3.7	mA
GRID 2 CURRENT		3.0	mA
TRANSCONDUCTANCE - GRID 1 TO PLATE		3,700	μMHOS
TRANSCONDUCTANCE - GRID 3 TO PLATE		750	μMHOS
PLATE RESISTANCE	APPROX.	0.14	MEGOHM
GRID 1 VOLTAGE FOR I_b = 20 μA	APPROX.	−4.5	VOLTS
GRID 3 VOLTAGE FOR I_b = 20 μA	APPROX.	−7	VOLTS

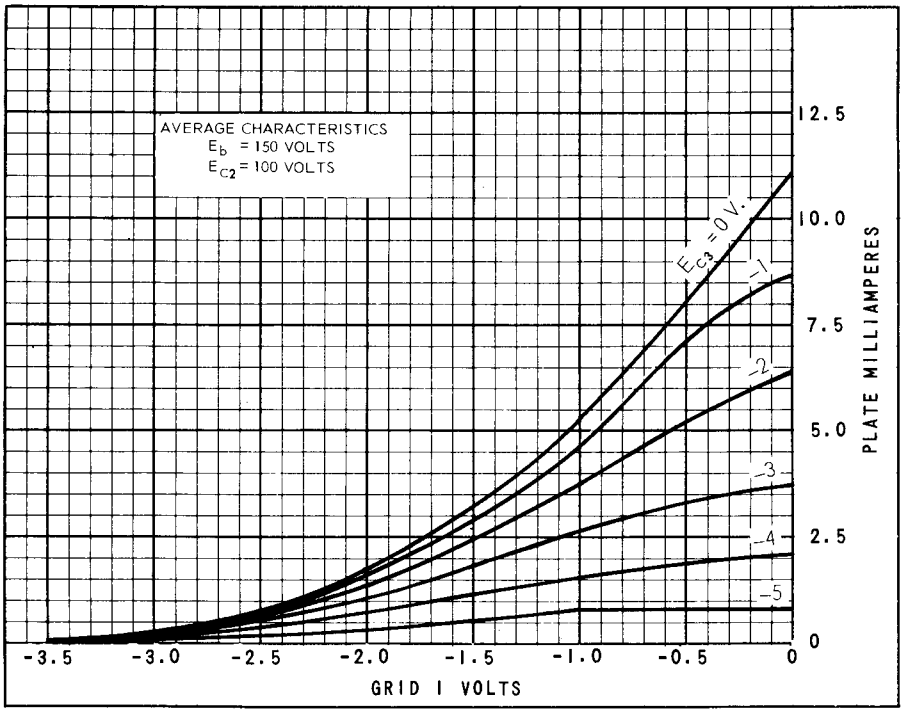

GRID 2
RATING CHART
GRID 2 DISSIPATION
1.00
0.75
0.50
0.25
0
0
50
100
150
200
250
300
GRID 2 VOLTS

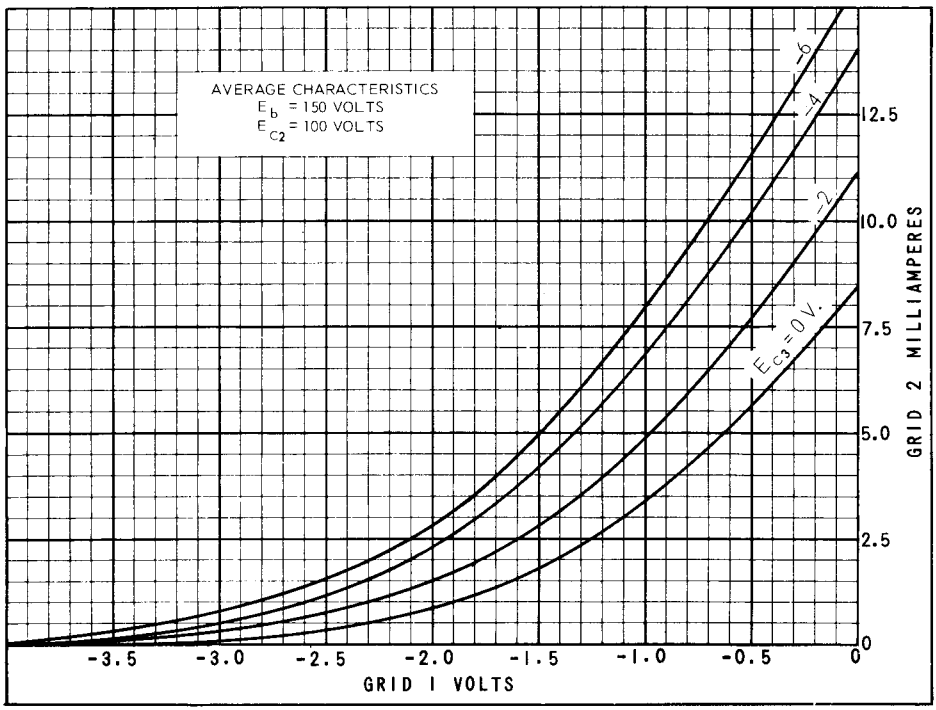

AVERAGE CHARACTERISTICS
E_b = 150 VOLTS
E_{c2} = 100 VOLTS
E_{c1} = 0 V.
I_{c2}
I_b
-0.5
-1
-1.5
-2
E_{c1} = 0 V.
I_{c3}
15
10
5
0
PLATE (I_b) OR GRID 2 (I_{c2})
OR GRID 3 (I_{c3}) MILLIAMPERES
-6
-4
-2
0
+2
+4
GRID 3 VOLTS

5GX6


AVERAGE CHARACTERISTICS
E_{C3} = 0 VOLTS
E_{C2} = 100 VOLTS
PLATE (I_b) OR GRID 2 (I_{c2}) MILLIAMPERES
PLATE VOLTS
I_{c2}
I_b
+1
E_{c1} = 0 V.
-0.5
-1
-2
0
5
10
15
20
25
50
100
150
200
250
300
350


AVERAGE CHARACTERISTICS
E_{C2} = 100 VOLTS
E_{C1} = 0 VOLTS
PLATE (I_b) OR GRID (I_{c2}) MILLIAMPERES
PLATE VOLTS
-2
-4
-6
+2
E_{c3} = 0 V.
I_b
E_{c3} = -4 V.
-8
0
5
10
15
20
50
100
150
200
250
300





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