

**TUNG-SOL**

TRIODE - PENTODE

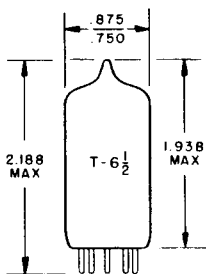
MINIATURE TYPE

FOR

USE IN VHF

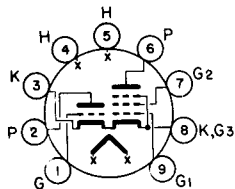
TV RECEIVERS

OUTLINE DRAWING  
JEDEC 6-2



BASE 9 PIN BUTTON  
JEDEC E9-1

BASING DIAGRAM  
JEDEC 9GF



BOTTOM VIEW

COATED UNIPOTENTIAL CATHODE  
ANY MOUNTING POSITION

THE 5FG7 IS A HEINRICH TRIODE AND SHARP-CUTOFF PENTODE IN THE 9-PIN MINIATURE CONSTRUCTION. IT IS DESIGNED FOR USE AS A COMBINED TRIODE OSCILLATOR AND PENTODE MIXER IN VHF TELEVISION RECEIVERS. EXCEPT FOR HEATER CHARACTERISTICS AND RATINGS, THE 5FG7 IS IDENTICAL TO THE 6FG7.

**DIRECT INTERELECTRODE CAPACITANCES**

**TRIODE UNIT:**

- GRID TO PLATE.....
- GRID TO CATHODE AND PENTODE GRID 3 & HEATER 3
- PLATE TO CATHODE & PENTODE GRID 3 & HEATER

**PENTODE UNIT:**

- GRID 1 TO PLATE - MAX.
- GRID 1 TO CATHODE & GRID 3, GRID 2, AND HEATER
- PLATE TO CATHODE & GRID, GRID 2, AND HEATER
- HEATER TO CATHODE & PENTODE GRID 3

	WITHOUT SHIELD	SHIELD #315 CONNECTED TO CATHODE	
GRID TO PLATE.....	1.8	1.8	pf
GRID TO CATHODE AND PENTODE GRID 3 & HEATER 3	3	3	pf
PLATE TO CATHODE & PENTODE GRID 3 & HEATER	1.3	1.9	pf
GRID 1 TO PLATE - MAX.	0.02	0.01	pf
GRID 1 TO CATHODE & GRID 3, GRID 2, AND HEATER	5	5	pf
PLATE TO CATHODE & GRID, GRID 2, AND HEATER	2.4	3.4	pf
HEATER TO CATHODE & PENTODE GRID 3	6	6 <sup>A</sup>	pf

A - SHIELD #315 CONNECTED TO GROUND

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## 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 - EACH UNIT:			
HEATER NEGATIVE WITH RESPECT TO CATHODE		200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE		200	VOLTS
DC COMPONENT		100	VOLTS

## MAXIMUM RATINGS

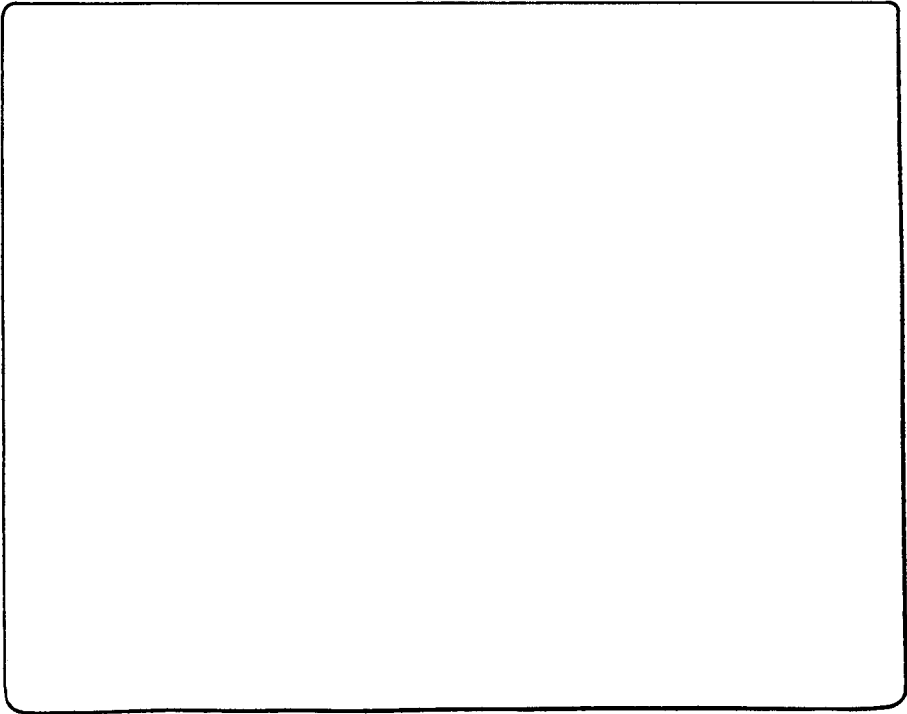
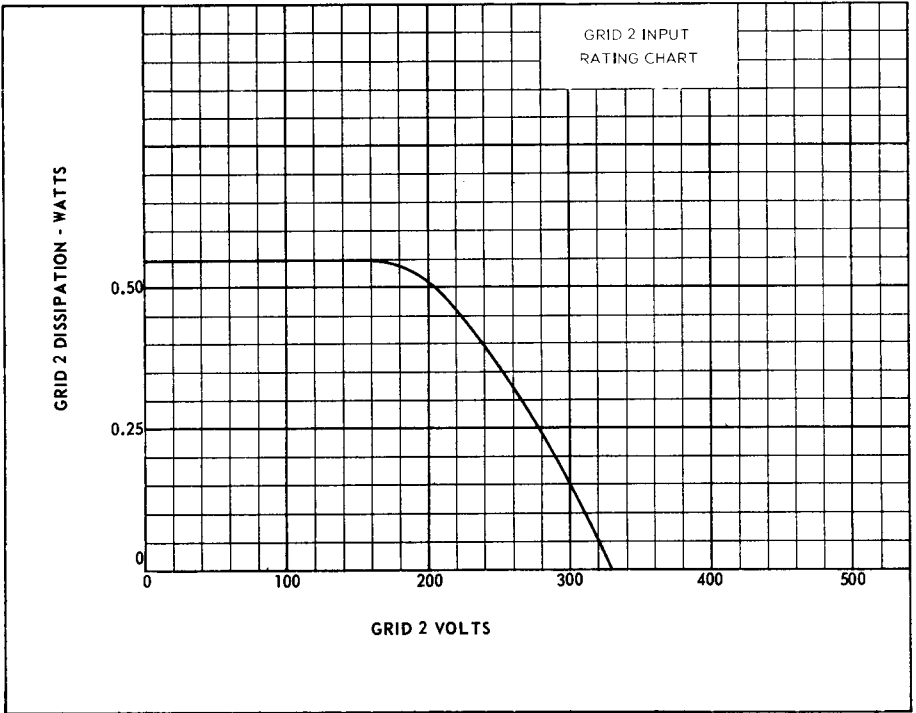
DESIGN MAXIMUM RATINGS - SEE EIA STANDARD RS-239

	TRIODE UNIT	PENTODE UNIT	
PLATE VOLTAGE	330	330	VOLTS
GRID 2 SUPPLY VOLTAGE		330	VOLTS
GRID 2 VOLTAGE	SEE RATING CHART		
GRID 1 VOLTAGE:			
POSITIVE + BIAS VALUE	0	0	VOLTS
GRID 2 INPUT:			
FOR GRID 2 VOLTAGES UP TO 165 VOLTS		0.55	WATT
FOR GRID 2 VOLTAGES BETWEEN 165 AND 330 VOLTS	SEE RATING CHART		
PLATE DISSIPATION	2.5	3	WATTS

## CHARACTERISTICS

CLASS A<sub>1</sub> AMPLIFIER

	TRIODE UNIT	PENTODE UNIT		
PLATE VOLTAGE	125	100	125	VOLTS
GRID 2 VOLTAGE	-	100	125	VOLTS
GRID 1 VOLTAGE	-1	0	-1	VOLTS
PLATE CURRENT	13		11	mA
GRID 2 CURRENT	-	-	4	mA
TRANSCONDUCTANCE	7,500	7,400	6,000	μMHOS
AMPLIFICATION FACTOR	43			
PLATE RESISTANCE - APPROX.	5.7	-	180	KOHMS
GRID 1 VOLTAGE FOR I <sub>b</sub> = 30 μA - APPROX.	-6.5	-	-7.5	VOLTS



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