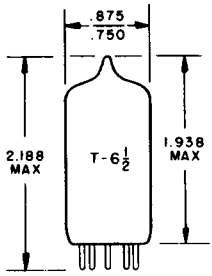
TUNG-SOL

TRIODE - PENTODE

MINIATURE TYPE

OUTLINE DRAWING
JEDEC 6-2



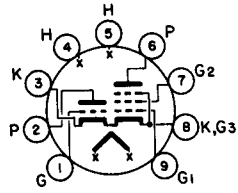
BASE 9 PIN BUTTON
JEDEC E9-1

FOR
USE IN VHF
TV RECEIVERS

COATED UNIPOTENTIAL CATHODE

ANY MOUNTING POSITION

BASING DIAGRAM
JEDEC 9GF



BOTTOM VIEW

THE 6FG7 IS A MEDIUM-MU 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 6FG7 IS IDENTICAL TO THE 5FG7.

DIRECT INTERELECTRODE CAPACITANCES

	WITHOUT SHIELD	SHIELD #315 CONNECTED TO CATHODE	
TRIODE UNIT:			
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
PENTODE UNIT:			
GRID 1 TO PLATE - MAX.	0.02	0.01	pf
GRID 1 TO CATHODE & GRID 2, 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 [A]	pf

A - SHIELD #315 CONNECTED TO GROUND

CONTINUED ON FOLLOWING PAGE

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HEATER CHARACTERISTICS AND RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS	6.3 VOLTS	450	mA
HEATER WARM-UP TIME		11	SECONDS
LIMITS OF SUPPLIED CURRENT		450 ± 30	mA
LIMITS OF APPLIED VOLTAGE		6.3 ± 0.6	VOLTS
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_1 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_b = 30 μA - APPROX.	−6.5	–	−7.5	VOLTS