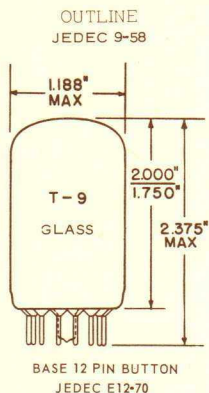


TUNG-SOL

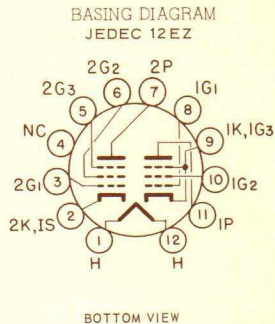
DUAL PENTODE

COMPACTRON



FOR
FM DETECTOR
AND AUDIO APPLICATION
IN T.V. RECEIVERS

COATED UNIPOTENTIAL CATHODE
ANY MOUNTING POSITION



THE TUNG-SOL 6Y10 IS A 12-PIN T-9 COMPACTRON CONTAINING TWO DISSIMILAR PENTODES. SECTION 1 IS A POWER PENTODE FOR AUDIO APPLICATION. SECTION 2 IS A DUAL CONTROL PENTODE INTENDED FOR USE AS FM DETECTOR IN TV CIRCUITS. ELECTRICALLY, SECTION 1 IS SIMILAR TO TYPE 6GZ5, SECTION 2 IS SIMILAR TO TYPE 6GX6.

DIRECT INTERELECTRODE CAPACITANCES

WITHOUT EXTERNAL SHIELD

PENTODE 1 - GRID 1 TO PLATE	0.24	pf
INPUT: (G ₁ TO H + K + I.S. + G ₂)	7.5	pf.
OUTPUT: (P TO H + K + I.S. + G ₂)	6.0	pf
PENTODE 2 - GRID 1 TO PLATE	0.022	pf
GRID 1 TO ALL (G ₁ TO H + K + I.S. + G ₂ + G ₃ + P)	7.5	pf
GRID 3 TO PLATE	1.5	pf
GRID 3 TO ALL (G ₁ TO H + K + I.S. + G ₁ + G ₂ + P)	6.5	pf
GRID 1 TO GRID 3	0.15	pf
COUPLING - PLATE TO PLATE	0.075	pf

HEATER CHARACTERISTICS AND RATINGS

DESIGN MAXIMUM SYSTEM-SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS	6.3 VOLTS	0.83	AMPS.
LIMITS OF APPLIED VOLTAGE - AC OR DC		6.3 ± 0.6	VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE-BOTH SECTIONS			
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

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

MAXIMUM RATINGS

DESIGN MAXIMUM SYSTEM - SEE EIA STANDARD RS-239

	SECTION 1	SECTION 2	
PLATE VOLTAGE	300	300	VOLTS
GRID 2 VOLTAGE	300	-	VOLTS
GRID 2 SUPPLY VOLTAGE	-	300	VOLTS
POSITIVE DC GRID 3 VOLTAGE	-	25	VOLTS
NEGATIVE DC GRID 3 VOLTAGE	-	100	VOLTS
POSITIVE DC GRID 1 VOLTAGE	0	0	VOLTS
NEGATIVE DC GRID 1 VOLTAGE	-	50	VOLTS
PLATE DISSIPATION	4.8	1.7	WATTS
GRID 2 DISSIPATION	1.1	SEE CHART	WATTS
UP TO 150 VOLTS			
CATHODE CURRENT	30	1.0	MA.
GRID 1 CIRCUIT RESISTANCE		20	MA.
FIXED BIAS	0.5	0.25	MEGOHMS
SELF BIAS	1.0	0.5	MEGOHMS
BULB TEMPERATURE	200		°C

AVERAGE CHARACTERISTICS

	SECTION 1	SECTION 2	
PLATE VOLTAGE	250	150	VOLTS
GRID 2 VOLTAGE	250	100	VOLTS
GRID 3 VOLTAGE	-	0	VOLTS
CATHODE RESISTOR	270	180	OHMS
PLATE CURRENT	16	3.7	MA.
GRID 2 CURRENT	2.7	3	MA.
TRANSCONDUCTANCE GRID 1 TO PLATE	8,400	3,700	μ MHOS
GRID 3 TO PLATE	-	600	μ MHOS
PLATE RESISTANCE - APPROX.	0.15	0.14	MEGOHMS
GRID 1 VOLTAGE FOR $I_b = 20 \mu A$	-	-4.5	VOLTS
GRID 3 VOLTAGE FOR $I_b = 20 \mu A$	-	-7	VOLTS

TYPICAL OPERATION - CLASS A1 POWER AMPLIFIER

SECTION 1

PLATE VOLTAGE	250	250	VOLTS
GRID 2 VOLTAGE	250	250	VOLTS
CATHODE RESISTOR	270	270	OHMS
BYPASSING	NONE	CAPACITOR	
PEAK AUDIO GRID 1 VOLTAGE	9.8	2.0	VOLTS
LOAD RESISTANCE	15,000	15,000	OHMS
MAXIMUM SIGNAL PLATE CURRENT	16	16	MA.
MAXIMUM SIGNAL GRID 2 CURRENT	5	5	MA.
TOTAL HARMONIC DISTORTION	10	10	%
POWER OUTPUT	1.8	1.1	WATTS

