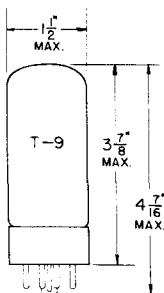


TUNG-SOL

PENTODE

MINIATURE TYPE



GLASS BULB

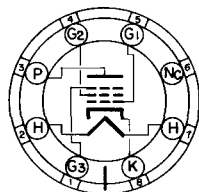
COATED UNIPOTENTIAL CATHODE

HEATER

6.3 VOLTS 1.5 AMPS.

AC OR DC

ANY MOUNTING POSITION

BOTTOM VIEW
8 PIN OCTAL

8ET

THE 6CA7 IS A POWER PENTODE OF THE GLASS OCTAL TYPE. THIS TUBE IS SUITABLE FOR ALL APPLICATIONS WHICH REQUIRE PEAK POWERS OF UP TO 11 WATTS FROM A SINGLE TUBE OR UP TO 100 WATTS FROM TWO TUBES IN THE NORMAL PUSH-PULL ARRANGEMENT. IT IS EQUALLY SUITABLE FOR DOMESTIC AMPLIFIERS AND PUBLIC ADDRESS EQUIPMENT.

DIRECT INTERELECTRODE CAPACITANCES

GRID #1 TO ALL OTHER ELEMENTS EXCEPT PLATE	15.5	μmf
PLATE TO ALL OTHER ELEMENTS EXCEPT GRID #1	7.2	μmf
PLATE TO GRID #1 (MAX.)	1.0	μmf
GRID #1 TO HEATER (MAX.)	1.0	μmf
HEATER TO CATHODE	11	μmf

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HEATER VOLTAGE	6.3	VOLTS
MAXIMUM PLATE VOLTAGE	800	VOLTS
MAXIMUM PLATE VOLTAGE WITHOUT PLATE CURRENT	2000	VOLTS
MAXIMUM PLATE DISSIPATION	25	WATTS
MAXIMUM PLATE DISSIPATION WITHOUT INPUT SIGNAL	27.5	WATTS
MAXIMUM GRID #2 VOLTAGE	425	VOLTS
MAXIMUM GRID #2 VOLTAGE WITHOUT PLATE CURRENT	800	VOLTS
MAXIMUM GRID #2 DISSIPATION	8	WATTS
CATHODE CURRENT	150	MAMPS
MAXIMUM GRID CURRENT STARTING POINT. GRID #1 VOLTAGE WHEN GRID #1 CURRENT IS 0.3 μ AMP	-1.3	VOLTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE (CLASS A & AB)	0.7	MEGOHM
MAXIMUM GRID #1 CIRCUIT RESISTANCE (CLASS B)	0.5	MEGOHM
MAXIMUM EXTERNAL RESISTANCE BETWEEN HEATER AND CATHODE	20000	OHMS
MAXIMUM VOLTAGE BETWEEN HEATER AND CATHODE	100	VOLTS

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TUNG-SOL

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TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A - ONE TUBE

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	1.5	AMPS.
SUPPLY VOLTAGE	265	265 VOLTS
PLATE VOLTAGE	250	250 VOLTS
GRID #2 SERIES RESISTOR	2000	0 OHMS
GRID #3 VOLTAGE	0	0 VOLT
GRID #1 BIAS	-14.5	-13.5 VOLTS
PLATE CURRENT	70	100 MAMPS
GRID #2 CURRENT	10	15 MAMPS
TRANSCONDUCTANCE	9000	11000 μ MHOS
AMPLIFICATION FACTOR OF GRID #2 WITH RESPECT TO GRID #1	11	11
PLATE RESISTANCE	18000	15000 OHMS
PLATE LOAD RESISTANCE	3000	2000 OHMS
INPUT VOLTAGE (RMS)	9.3	8.7 VOLTS
MAX. SIGNAL POWER OUTPUT	8	11 WATTS
TOTAL HARMONIC DISTORTION	10	10 PERCENTS
INPUT VOLTAGE FOR POWER OUTPUT OF 50 MWATTS (RMS)	0.65	0.5 VOLT

CLASS B - TWO TUBES

SUPPLY VOLTAGE 425 VOLTS		
COMMON GRID #2 RESISTOR	1000	OHMS
GRID #1 BIAS	-38	VOLTS
GRID #3 VOLTAGE	0	VOLT
INPUT BOLTAGE (RMS)	0 27 27	VOLTS
LOAD RESISTANCE, PLATE TO PLATE	- 3400 4000	OHMS
SUPPLY VOLTAGE	425 425 400	VOLTS
PLATE VOLTAGE	420 400 375	VOLTS
PLATE CURRENT	2X30 2X120 2X100	MAMPS
GRID #2 CURRENT	2X4.4 2X25 2X25	MAMPS
MAX. SIGNAL POWER OUTPUT	0 55 45	WATTS
TOTAL HARMONIC DISTORTION	- 5 6	PERCENTS

CLASS B - TWO TUBES

SUPPLY BOLTAGE 375 VOLTS

COMMON GRID #2 RESISTOR	470	OHMS
GRID #1 BIAS	-32	VOLTS
GRID #3 VOLTAGE	0	VOLT
INPUT VOLTAGE (RMS)	0 22.7 22.7	VOLTS
LOAD RESISTANCE, PLATE TO PLATE	- 2800 3800	OHMS
SUPPLY VOLTAGE	375 375 350	VOLTS
PLATE VOLTAGE	370 350 325	VOLTS
PLATE CURRENT	2X35 2X120 2X93	MAMPS
GRID #2 CURRENT	2X4.7 2X25 2X25	MAMPS
MAX. SIGNAL POWER OUTPUT	0 44 36	WATTS
TOTAL HARMONIC DISTORTION	- 5 6	PERCENTS

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TUNG-SOL

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TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

(CONT'D.)

CLASS B - TWO TUBES

SUPPLY VOLTAGE 500/400 VOLTS

COMMON GRID #2 RESISTOR	750		OHMS
GRID #1 BIAS	-36		VOLTS
GRID #3 VOLTAGE	0		VOLT
INPUT VOLTAGE (RMS)	0	25.8	25.8
LOAD RESISTANCE, PLATE TO PLATE	-	4000	5000
PLATE SUPPLY VOLTAGE	500	500	475
PLATE VOLTAGE	495	475	450
GRID #2 SUPPLY VOLTAGE	400	400	375
PLATE CURRENT	2X30	2X125	2X102
GRID #2 CURRENT	2X4	2X25	2X25
MAX. SIGNAL POWER OUTPUT	0	70	58
TOTAL HARMONIC DISTORTION	-	5	6
			PERCENTS

CLASS B - TWO TUBES

SUPPLY VOLTAGE 800/400 VOLTS

COMMON GRID #2 RESISTOR	750		OHMS
GRID #1 BIAS	-39		VOLTS
GRID #3 VOLTAGE	0		VOLT
INPUT VOLTAGE (RMS)	0	23.4	23.4
LOAD RESISTANCE, PLATE TO PLATE	-	11000	11000
PLATE SUPPLY VOLTAGE	800	800	750
PLATE VOLTAGE	795	775	725
GRID #2 SUPPLY VOLTAGE	400	400	375
PLATE CURRENT	2X25	2X91	2X84
GRID #2 CURRENT	2X3	2X19	2X19
MAX. SIGNAL POWER OUTPUT	0	100	90
TOTAL HARMONIC DISTORTION	-	5	6
			PERCENTS

CLASS AB - TWO TUBES

SUPPLY VOLTAGE 375 VOLTS

LOAD RESISTANCE, PLATE TO PLATE	3400		OHMS
COMMON GRID #2 RESISTOR	470		OHMS
CATHODE RESISTOR	130		OHMS
GRID #3 VOLTAGE	0		VOLT
INPUT VOLTAGE (RMS)	0		21
SUPPLY VOLTAGE	375		375
PLATE VOLTAGE + VOLTAGE ACROSS			
CATHODE RESISTOR	355		350
PLATE CURRENT	2X75		2X95
GRID #2 CURRENT	2X11.5		2X22.5
MAX. SIGNAL POWER OUTPUT	0		35
TOTAL HARMONIC DISTORTION	-		5
			PERCENTS

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TUNG-SOL

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TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

(CONT'D.)

IN TRIODE CONNECTION

(GRID #2 CONNECTED TO PLATE)

CLASS A, ONE TUBE, SUPPLY VOLTAGE 375 VOLTS

SUPPLY VOLTAGE	375	VOLTS
GRID #3 VOLTAGE	0	VOLT
CATHODE RESISTOR	370	OHMS
LOAD RESISTANCE	3000	OHMS
INPUT VOLTAGE (RMS)	18.9	VOLTS
PLATE CURRENT	70	MAMPS
MAX. SIGNAL POWER OUTPUT	6	WATTS
TOTAL HARMONIC DISTORTION	8	PERCENTS
INPUT VOLTAGE FOR POWER OUTPUT OF 50 MILLIWATTS (RMS)	1.7	VOLTS

IN TRIODE CONNECTION

(GRID #2 CONNECTED TO PLATE)

CLASS AB, TWO TUBES, SUPPLY VOLTAGE 400 VOLTS

SUPPLY VOLTAGE	400	VOLTS
GRID #3 VOLTAGE	0	VOLT
CATHODE RESISTOR	220	OHMS
LOAD RESISTANCE, PLATE TO PLATE	5000	OHMS
INPUT VOLTAGE (RMS)	0 22	VOLTS
PLATE CURRENT	2X65 2X71	MAMPS
MAX. SIGNAL POWER OUTPUT	0 16.5	WATTS
TOTAL HARMONIC DISTORTION	- 3	PERCENTS

