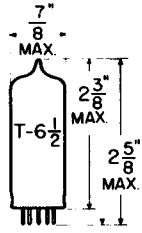
TUNG-SOL

DOUBLE TRIODE

MINIATURE TYPE



SMALL BUTTON
9 PIN BASE E9-1
OUTLINE DRAWING
JEDEC 6-3
GLASS BULB

COATED UNIPOTENTIAL CATHODE

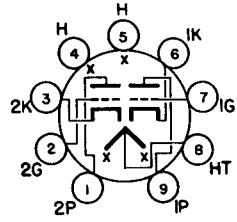
SERIES HEATER	PARALLEL
12.6±5% VOLTS	6.3±5% VOLTS
0.45 AMP	0.90 AMP

AC OR DC

MOUNTING POSITION

PREFERRED: UPRIGHT OR WITH PLATE MAJORS IN A VERTICAL POSITION

PERMISSIBLE.....ANY



BASING DIAGRAM
JEDEC 9H

BOTTOM VIEW

THE 7044 IS A DOUBLE TRIODE DESIGNED FOR USE IN ELECTRONIC COMPUTERS. THE TUBE IS CHARACTERIZED BY HIGH ZERO BIAS PLATE CURRENT AND EXCEPTIONAL FREEDOM FROM THE DEVELOPMENT OF CATHODE INTERFACE.

DIRECT INTERELECTRODE CAPACITANCES

WITHOUT EXTERNAL SHIELD

	SECTION 1		SECTION 2	
GRID TO PLATE: (G TO P)	6.0		6.0	μμf
INPUT: G TO (H+K)	4.8		4.8	μμf
OUTPUT: P TO (H+K)	0.65		0.55	μμf
GRID #1 TO GRID #2 (1G TO 2G)		0.10		μμf
PLATE #1 TO PLATE #2 (1P TO 2P)		1.4		μμf
HEATER TO CATHODE: (H+K)	6.0		6.0	μμf

RATINGS

INTERPRETED ACCORDING TO DESIGN MAXIMUM SYSTEM

	SERIES	PARALLEL	
HEATER VOLTAGE	12.6±5%	6.3±5%	VOLTS
HEATER CURRENT	0.45	0.90	AMP.
HEATER POWER	5.7	5.7	WATTS
MAXIMUM HEATER CATHODE VOLTAGE:			
HEATER NEGATIVE WITH RESPECT TO CATHODE			
TOTAL DC PLUS PEAK	200		
HEATER POSITIVE WITH RESPECT TO CATHODE[A]			
DC	100		VOLTS
TOTAL DC PLUS PEAK	200		VOLTS
MAXIMUM AVERAGE PLATE VOLTAGE [D]	300		VOLTS
MAXIMUM PEAK PLATE VOLTAGE			
(MEASURED BETWEEN PLATE AND CATHODE)[E]	600		VOLTS

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RATINGS - CONT'D.

INTERPRETED ACCORDING TO DESIGN MAXIMUM SYSTEM

EACH UNIT [C]

HEATER VOLTAGE	12.6±5%	6.3±5%	VOLTS
MAXIMUM GRID VOLTAGE:			
NEGATIVE BIAS VALUE DC	100		VOLTS
POSITIVE BIAS VALUE DC	1.0		VOLTS
PEAK NEGATIVE VALUE [E]	300		VOLTS
PEAK POSITIVE VALUE [E]	30		VOLTS
MAXIMUM AVERAGE PLATE DISSIPATION [D]	4.5		WATTS
MAXIMUM AVERAGE TOTAL PLATE DISSIPATION (BOTH UNITS) [D]	8.0		WATTS
MAXIMUM AVERAGE POSITIVE GRID CURRENT [D]	5.0		MA.
MAXIMUM PEAK POSITIVE GRID CURRENT [E]	200		MA.
MAXIMUM AVERAGE CATHODE CURRENT [D]	50		MA.
MAXIMUM PEAK CATHODE CURRENT [E]	400		MA.
MAXIMUM BULB TEMPERATURE (AT HOTTEST POINT ON BULB)	160		°C
MAXIMUM GRID CIRCUIT RESISTANCE			
FIXED BIAS	0.1		MEGOHM
CATHODE BIAS	0.47		MEGOHM

INITIAL CHARACTERISTICS LIMITS

RANGE VALUES FOR EQUIPMENT DESIGN

	MIN.		MAX.	
HEATER VOLTAGE (SERIES)		12.6±5%		VOLTS
HEATER VOLTAGE (PARALLEL)		6.3±5%		VOLTS
HEATER CURRENT (SERIES)		0.45		AMP.
HEATER CURRENT (PARALLEL)		0.90		AMP.
HEATER CURRENT @ Ef= 12.6 VOLTS	410		490	MA.
PLATE CURRENT				
Ef = 12.6 V., Eb = 90 V., Ec ADJUSTED FOR Ic = 250 μA	→ 34		→ 60	MA.
PLATE CURRENT				
Ef = 12.6 V., Eb = 120 V., Ec =- 2 V.	26		45	MA.
REVERSE GRID CURRENT				
Ef = 12.6 V Eb = 120 V Ec=-2 V.	---		1.5	μA
CUTOFF PLATE CURRENT				
Ef = 12.6 V Eb = 150 V., Ec =- 14 V.	---		200	μA
HEATER-CATHODE LEAKAGE AT				
Ef = 12.6 V. AND Ehk =± 100 V.	---		30	μA
MINIMUM INTERELECTRODE RESISTANCE (EXCEPT HEATER CATHODE)				
GRID TO ALL MEASURED WITH 300 VOLTS, GRID NEGATIVE	50		---	MEGOHMS
PLATE TO ALL MEASURED WITH 500 VOLTS PLATE NEGATIVE	50		---	MEGOHMS
INTERMITTENT LEAKAGE [F]				

→ INDICATES A CHANGE.

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