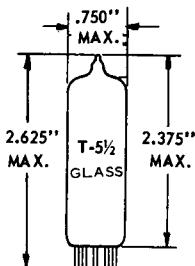


TUNG-SOL

BEAM PENTODE

MINIATURE TYPE

OUTLINE DRAWING
JEDEC 5-3

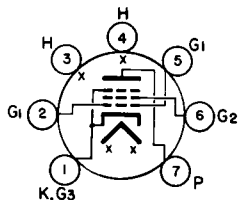


BASE 7 PIN BUTTON
JEDEC E7-1

AUDIO OUTPUT PENTODE
HIGH POWER SENSITIVITY

COATED UNIPOTENTIAL CATHODE
ANY MOUNTING POSITION

BASING DIAGRAM
JEDEC 7CV



BOTTOM VIEW

THE 12FX5 IS A BEAM POWER PENTODE USING THE 7 PIN MINIATURE CONSTRUCTION. BECAUSE OF ITS HIGH POWER SENSITIVITY AT LOW PLATE-SCREEN VOLTAGE, IT IS PARTICULARLY ADAPTABLE TO RECORD PLAYER APPLICATIONS.

DIRECT INTERELECTRODE CAPACITANCES - APPROX.
WITHOUT EXTERNAL SHIELD

GRID TO PLATE: G_1 TO P	0.6	pf
INPUT: G_1 TO ($G_2 + G_3 + K + H$)	17	pf
OUTPUT: P TO ($G_2 + G_3 + K + H$)	9	pf

HEATER CHARACTERISTICS AND RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS	12.6	VOLTS	450	MA.
HEATER WARM-UP TIME			11	SEC.
LIMITS OF SUPPLIED CURRENT - AC OR DC			450 ± 30	MA
MAXIMUM HEATER - CATHODE VOLTAGE:				
HEATER NEGATIVE WITH RESPECT TO CATHODE				
TOTAL DC AND PEAK			200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE				
DC COMPONENT			100	VOLTS
TOTAL DC AND PEAK			200	VOLTS

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MAXIMUM RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

PLATE VOLTAGE	150	VOLTS
GRID #2 VOLTAGE	130	VOLTS
POSITIVE DC GRID #1 VOLTAGE	0	VOLTS
PLATE DISSIPATION	5.5	WATTS
GRID #2 DISSIPATION	2	WATTS
GRID #1 CIRCUIT RESISTANCE:		
FIXED BIAS	0.1	MEGOHM
CATHODE BIAS	0.5	MEGOHM
BULB TEMPERATURE		
(AT HOTTEST POINT ON BULB SURFACE)	225	° C

CHARACTERISTICS

PLATE VOLTAGE	110	VOLTS
GRID 2 VOLTAGE	115	VOLTS
CATHODE BIAS RESISTOR	62	OHMS
PLATE CURRENT	36	MA
GRID 2 CURRENT	10	MA
TRANSCONDUCTANCE	13,500	μMHOS
PLATE RESISTANCE - APPROX.	17,500	OHMS

TYPICAL OPERATING CONDITIONSCLASS A₁ AMPLIFIER

PLATE VOLTAGE	110	VOLTS
GRID #2 VOLTAGE	115	VOLTS
CATHODE BIAS RESISTOR - BY PASSED	62	OHMS
PEAK AF GRID #1 VOLTAGE	3	VOLTS
MAXIMUM SIGNAL PLATE CURRENT	35	MA
MAXIMUM SIGNAL GRID #2 CURRENT	12	MA
LOAD RESISTANCE	3,000	OHMS
TOTAL HARMONIC DISTORTION	8	PERCENT
MAXIMUM SIGNAL POWER OUTPUT	1.3	WATTS