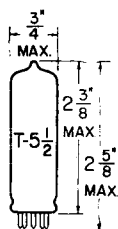


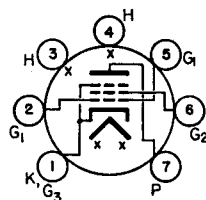
TUNG-SOL

POWER PENTODE
MINIATURE TYPE

GLASS BULB
MINIATURE BUTTON
7 PIN BASE E7-1
OUTLINE DRAWING
JEDEC 5-3

COATED UNIPOTENTIAL CATHODE

HIGH POWER SENSITIVITY
FOR SERIES STRING RECEIVERS



BOTTOM VIEW

BASING DIAGRAM
JEDEC 7CV

THE 50FA5 IS A POWER PENTODE IN THE 7 PIN MINIATURE CONSTRUCTION. IT IS DESIGNED FOR LOW HEAT DISSIPATION THROUGH USE OF A LOW CURRENT HEATER. HEATER WARM-UP TIME (IN SERIES STRING APPLICATIONS) IS CONTROLLED FOR IMPROVED RELIABILITY.

DIRECT INTERELECTRODE CAPACITANCES

WITHOUT EXTERNAL SHIELD

GRID #1 TO PLATE	0.28	pf
INPUT: G ₁ TO (K+G ₃ +G ₂ +H)	11	pf
OUTPUT: P TO (K+G ₃ +G ₂ +H)	8.5	pf

HEATER CHARACTERISTICS AND RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS	50 VOLTS	100 ^A	MA.
HEATER SUPPLY LIMITS:			
CURRENT OPERATION		100±6 ^B	MA.
MAXIMUM HEATER-CATHODE VOLTAGE:			
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
HEATER WARM-UP TIME ^A		20	SECONDS

MAXIMUM RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

CLASS A₁ AMPLIFIER

PLATE VOLTAGE	150	VOLTS
GRID #2 VOLTAGE	130	VOLTS
PLATE DISSIPATION	5.2	WATTS
GRID #2 DISSIPATION	1.1	WATTS
GRID #1 CIRCUIT RESISTANCE:		
FIXED BIAS	0.1	MEGOHM
CATHODE BIAS	0.5	MEGOHM

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CHARACTERISTICS

PLATE VOLTAGE	110	VOLTS
GRID #2 VOLTAGE	110	VOLTS
GRID #1 VOLTAGE	-7.5	VOLTS
PEAK AF GRID #1 VOLTAGE	7.5	VOLTS
ZERO-SIGNAL PLATE CURRENT	40	MA.
MAX.-SIGNAL PLATE CURRENT	41	MA.
ZERO-SIGNAL GRID #2 CURRENT	3	MA.
MAX.-SIGNAL GRID #2 CURRENT	7	MA.
TRANSCONDUCTANCE	5800	μMHOS
PLATE RESISTANCE (APPROX.)	13,000	OHMS
LOAD RESISTANCE	2500	OHMS
MAX.-SIGNAL POWER OUTPUT	1.5	WATTS
TOTAL HARMONIC DISTORTION	10	PERCENT

A
 HEATER WARM-UP TIME IS DEFINED AS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TO REACH 80% OF ITS RATED VOLTAGE AFTER APPLYING 4 TIMES RATED HEATER VOLTAGE TO A CIRCUIT CONSISTING OF THE TUBE HEATER IN SERIES WITH A RESISTANCE OF VALUE 3 TIMES THE NOMINAL HEATER OPERATING RESISTANCE.