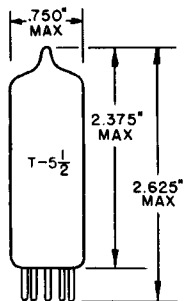


## TUNG-SOL

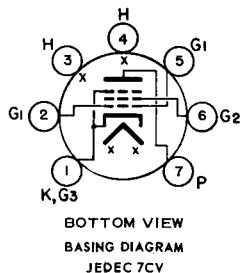
PENTODE  
MINIATURE TYPE

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

FOR USE IN  
AUDIO OUTPUT STAGES OF  
RADIO AND TV RECEIVERS  
AND PHONOGRAPHS

UNIPOTENTIAL CATHODE

ANY MOUNTING POSITION



THE 50EH5 IS A POWER PENTODE IN THE 7 PIN MINIATURE CONSTRUCTION. IT HAS BEEN SPECIFICALLY DESIGNED FOR USE IN THE AUDIO OUTPUT STAGE OF RADIO AND TELEVISION RECEIVERS AND PHONOGRAPHS. EXCEPT FOR HEATER CHARACTERISTICS AND RATINGS, IT IS IDENTICAL TO THE 6EH5, 12EH5 AND THE 25EH5.

### DIRECT INTERELECTRODE CAPACITANCES - APPROX.

WITHOUT EXTERNAL SHIELD

GRID 1 TO PLATE	0.65	pf
GRID 1 TO CATHODE & GRID 3, HEATER & GRID 2	17	pf
PLATE TO CATHODE & GRID 3, HEATER & GRID 2	9	pf

### HEATER CHARACTERISTICS AND RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS	50	VOLTS	150	MA.
HEATER SUPPLY LIMITS:				
CURRENT OPERATION			150 ± 10	MA.
MAXIMUM PEAK HEATER-CATHODE VOLTAGE:				
HEATER NEGATIVE WITH RESPECT TO CATHODE	200			VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	200 <sup>B</sup>			VOLTS

<sup>B</sup> THE DC COMPONENT MUST NOT EXCEED 100 VOLTS.

**TUNG-SOL****MAXIMUM RATINGS**

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

**AMPLIFIER**

PLATE VOLTAGE	→ 150	VOLTS
GRID 2 (SCREEN-GRID) VOLTAGE	→ 130	VOLTS
PLATE DISSIPATION	→ 5.5	WATTS
GRID 2 INPUT	→ 2	WATTS
BULB TEMPERATURE (AT HOTTEST POINT ON BULB SURFACE)	220	°C
GRID 1 CIRCUIT RESISTANCE:		
FOR FIXED-BIAS OPERATION	0.1	MEGOHM
FOR CATHODE-BIAS OPERATION	0.5	MEGOHM

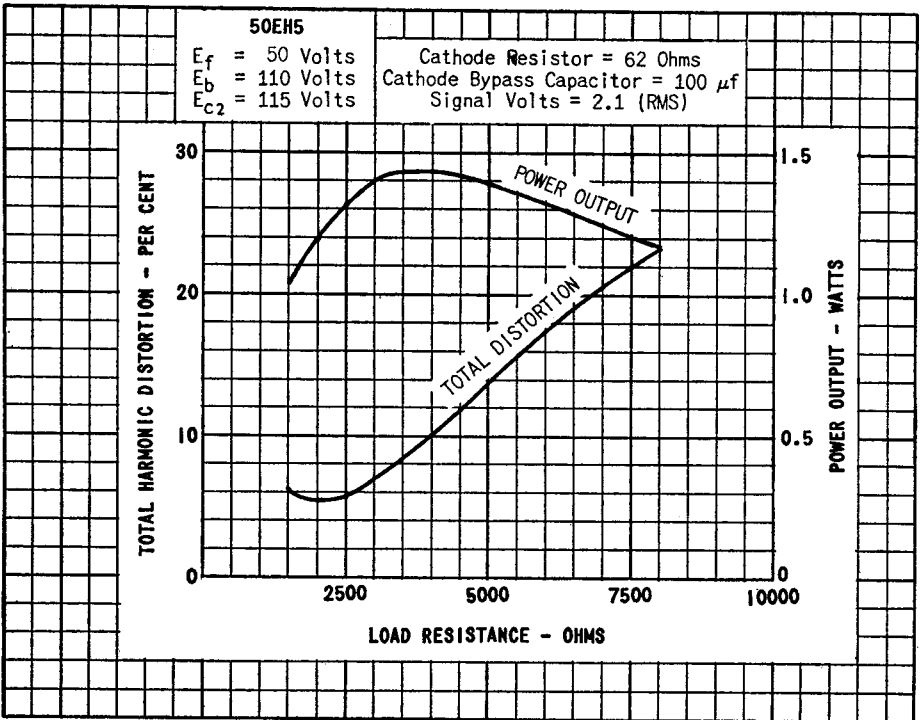
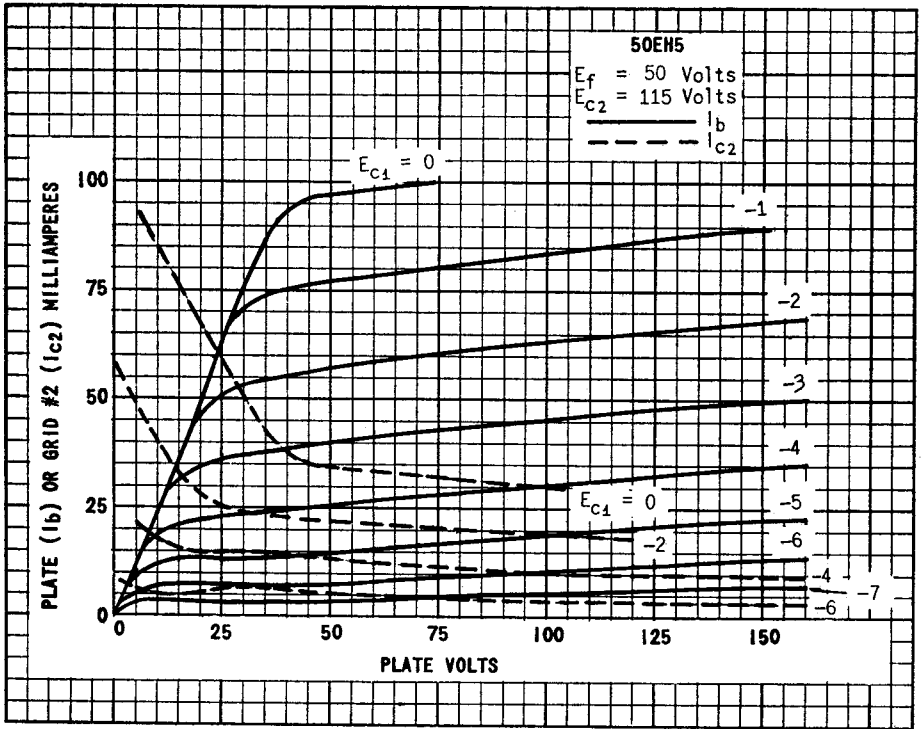
**TYPICAL OPERATING CHARACTERISTICS****CLASS A1 AMPLIFIER**

PLATE SUPPLY VOLTAGE	110	VOLTS
GRID 2 SUPPLY VOLTAGE	115	VOLTS
CATHODE RESISTOR	62	OHMS
PEAK AF GRID 1 VOLTAGE	3	VOLTS
ZERO-SIGNAL PLATE CURRENT	42	MA.
SIGNAL PLATE CURRENT (MAX.)	42	MA.
ZERO-SIGNAL GRID 2 CURRENT	11.5	MA.
SIGNAL GRID 2 CURRENT (MAX.)	14.5	MA.
TRANSCONDUCTANCE	14,600	μMHOS
PLATE RESISTANCE (APPROX.)	11,000	OHMS
LOAD RESISTANCE	3,000	OHMS
TOTAL HARMONIC DISTORTION	7	PERCENT
SIGNAL POWER OUTPUT (MAX.)	1.4	WATTS

**PUSH-PULL AF POWER AMPLIFIER - CLASS AB1**  
VALUES ARE FOR TWO TUBES

PLATE SUPPLY VOLTAGE	140	VOLTS
GRID 2 SUPPLY VOLTAGE	120	VOLTS
CATHODE RESISTOR	68	OHMS
PEAK AF GRID 1 TO GRID 1 VOLTAGE	9.4	VOLTS
ZERO-SIGNAL PLATE CURRENT	47	MA.
MAX. SIGNAL PLATE CURRENT	51	MA.
ZERO-SIGNAL GRID 2 CURRENT	11	MA.
MAX.-SIGNAL GRID 2 CURRENT	17.7	MA.
EFFECTIVE LOAD RESISTANCE (PLATE TO PLATE)	6000	OHMS
TOTAL HARMONIC DISTORTION	5	PERCENT
MAX.-SIGNAL POWER OUTPUT	3.8	WATTS.

→ INDICATES A CHANGE.



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