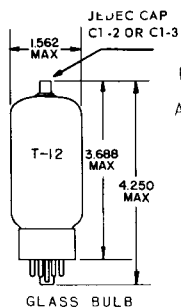


## TUNG-SOL

## BEAM PENTODE

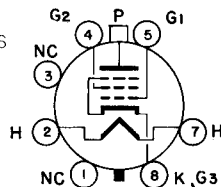


SKIRTED MINIATURE  
SHORT MEDIUM-SHELL  
6 PIN OCTAL B6-122,  
B6-148 OR  
7 PIN OCTAL  
B7-111, B7-119 OR B5-190 ←  
OUTLINE DRAWING  
JEDEC 17-51

COATED UNIPOTENTIAL CATHODE  
FOR HORIZONTAL DEFLECTION AMPLIFIER  
APPLICATIONS IN TELEVISION RECEIVERS

ANY MOUNTING POSITION

PIN #1 IS OMITTED WHEN EITHER  
A B6-122 OR B6-148 BASE IS USED



BASING DIAGRAM  
JEDEC 6AM

THE 17DQ6B IS A BEAM POWER PENTODE PRIMARILY DESIGNED FOR USE AS THE HORIZONTAL-DEFLECTION AMPLIFIER IN TELEVISION RECEIVERS. ITS HIGH ZERO-BIAS PLATE CURRENT AT LOW PLATE AND SCREEN VOLTAGES MAKES THE TUBE WELL SUITED FOR USE IN RECEIVERS THAT OPERATE AT LOW PLATE-SUPPLY VOLTAGES. EXCEPT FOR HEATER RATINGS AND HEATER WARM-UP TIME, THE 17DQ6B IS IDENTICAL TO THE 6DQ6B.

### DIRECT INTERELECTRODE CAPACITANCES — APPROX.

WITHOUT EXTERNAL SHIELD

GRID TO PLATE (G TO P)	0.5	pf
INPUT: (G1 TO H+K, BP + G2)	15.0	pf
OUTPUT: (P TO H+K, BP + B2)	7.0	pf

### HEATER CHARACTERISTICS AND RATINGS

DESIGN MAXIMUM VALUES — SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS	16.8 VOLTS	450	MA.
HEATER SUPPLY LIMITS:			
CURRENT OPERATION		450±30	MA.
MAXIMUM HEATER-CATHODE VOLTAGE:			
HEATER POSITIVE WITH RESPECT TO CATHODE			
DC	100		VOLTS
TOTAL DC AND PEAK	200		VOLTS
HEATER NEGATIVE WITH RESPECT TO CATHODE			
TOTAL DC AND PEAK	200		VOLTS
HEATER WARM-UP TIME, APPROX. *		11	SECONDS

→ INDICATES A CHANGE.

CONTINUED ON FOLLOWING PAGE

## TUNG-SOL

CONTINUED FROM PRECEDING PAGE

## MAXIMUM RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

HORIZONTAL DEFLECTION AMPLIFIER<sup>A</sup>

PLATE SUPPLY VOLTAGE, DC (BOOST+DC POWER SUPPLY)	770	VOLTS
PLATE VOLTAGE, PEAK PULSE, POSITIVE	6500	VOLTS
PLATE VOLTAGE, PEAK PULSE, NEGATIVE	1500	VOLTS
PLATE DISSIPATION, <sup>B</sup>	18	WATTS
GRID #1 VOLTAGE, PEAK PULSE, NEGATIVE	330	VOLTS
GRID #2 VOLTAGE, DC	220	VOLTS
GRID #2 DISSIPATION	3.6	WATTS
CATHODE CURRENT, AVERAGE	175	MA.
CATHODE CURRENT, PEAK	610	MA.
GRID #1 CIRCUIT RESISTANCE, <sup>B</sup>	1.0	MEGOHM
BULB TEMPERATURE, (AT HOTTEST POINT)	220	°C

## AVERAGE CHARACTERISTICS

PENTODE OPERATION:  $E_b = 250V$ ,  $E_{c2} = 150V$ ,  $E_{c1} = -22.5V$ .

PLATE CURRENT	65	MA.
GRID #2 CURRENT	1.8	MA.
TRANSCONDUCTANCE	7300	μMHOS
PLATE RESISTANCE, APPROX.	18,000	OHMS
ZERO BIAS: $E_b = 60V$ , $E_{c2} = 150V$ . (INSTANTANEOUS VALUES)		
PLATE CURRENT	345	MA.
GRID #2 CURRENT	27	MA.
CUTOFF: $I_b = 1$ MA, $E_b = 250$ V, $E_{c2} = 150$ V.		
GRID #1 VOLTAGE, APPROX.	-42	VOLTS
CUTOFF: $I_b = 1$ MA, $E_b = 5000$ V, $E_{c2} = 150$ V.		
GRID #1 VOLTAGE, APPROX.	-100	VOLTS
TRIODE $\mu$ : $E_b = E_{c2} = 150$ V, $E_{c1} = -22.5$ V.	4.4	

→ INDICATES A CHANGE.

A

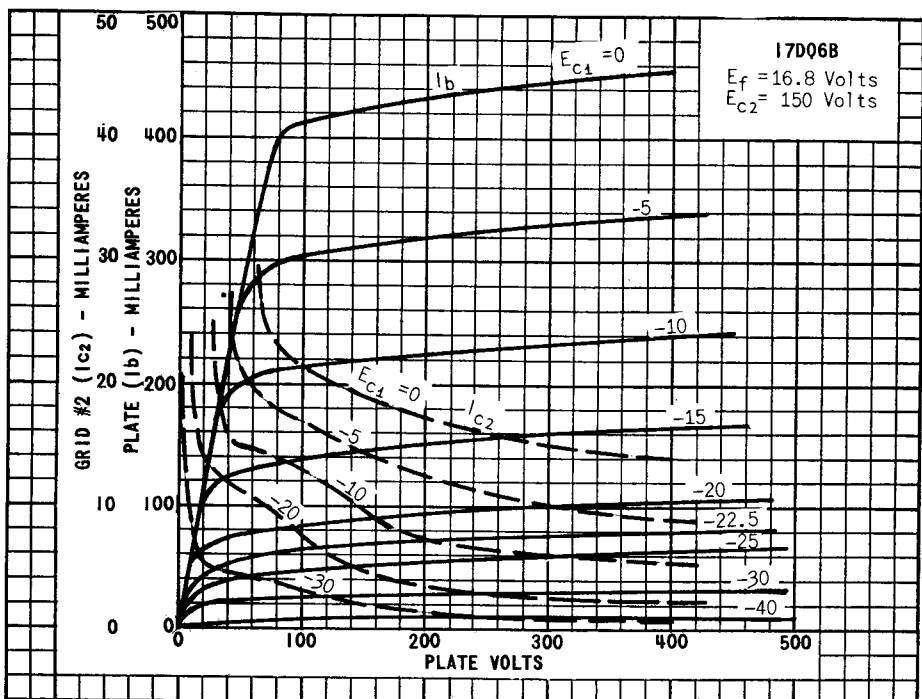
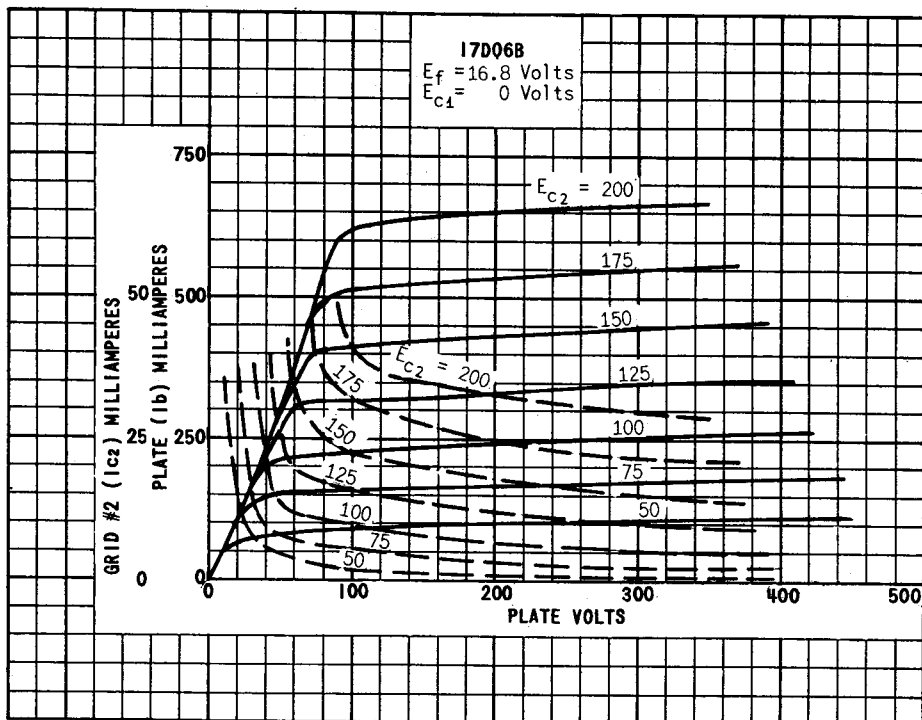
FOR OPERATION IN A 525-LINE, 30-FRAME SYSTEM AS DESCRIBED IN "STANDARDS OF GOOD ENGINEERING PRACTICE FOR TELEVISION BROADCAST STATIONS: FEDERAL COMMUNICATIONS COMMISSION", THE DUTY CYCLE OF THE VOLTAGE PULSE MUST NOT EXCEED 15% OF ONE SCANNING CYCLE.

B

IN STAGES OPERATING WITH GRID LEAK BIAS, AN ADEQUATE CATHODE BIAS RESISTOR OR OTHER SUITABLE MEANS IS REQUIRED TO PROTECT THE TUBE IN THE ABSENCE OF EXCITATION.

\*

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.



# 17DQ6B

