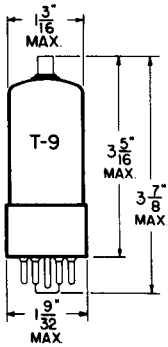
TUNG-SOL

PENTODE

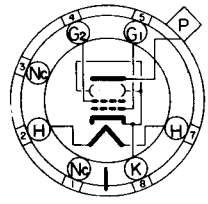


GLASS BULB
SKIRTED
MINIATURE CAP

COATED UNIPOTENTIAL CATHODE

HEATER
16.8 VOLTS 0.45 AMP.
AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW
INTERMEDIATE SHELL
OR
SHORT INTERMEDIATE SHELL
7 PIN OCTAL
6AM

THE 17BQ6GTB IS A BEAM POWER AMPLIFIER DESIGNED FOR USE AS A HORIZONTAL DEFLECTION AMPLIFIER IN TELEVISION RECEIVERS.

DIRECT INTERELECTRODE CAPACITANCES – APPROX.

GRID TO PLATE	0.6	μμf
INPUT	15	μμf
OUTPUT	7	μμf

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER VALUES
(UNLESS OTHERWISE SPECIFIED)

HORIZONTAL DEFLECTION AMPLIFIER[A]

HEATER VOLTAGE	16.8	VOLTS
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
MAXIMUM DC PLATE SUPPLY VOLTAGE (BOOST + DC POWER SUPPLY)	600	VOLTS
MAXIMUM PEAK POSITIVE PLATE VOLTAGE (ABSOLUTE MAX.)	6 000	VOLTS
MAXIMUM PEAK NEGATIVE PLATE VOLTAGE	1 250	VOLTS
MAXIMUM PLATE DISSIPATION[B]	11	WATTS
MAXIMUM PEAK NEGATIVE GRID #1 VOLTAGE	300	VOLTS
MAXIMUM DC GRID #2 VOLTAGE	200	VOLTS
MAXIMUM GRID #2 DISSIPATION	2.5	WATTS
MAXIMUM AVERAGE CATHODE CURRENT	110	MA.
MAXIMUM PEAK CATHODE CURRENT	400	MA.
MAXIMUM GRID #1 CIRCUIT RESISTANCE	0.47	MEGOHM
MAXIMUM BULB TEMPERATURE (AT HOTTEST POINT)	220	°C
HEATER WARM-UP TIME (APPROX.)*	11.0	SECONDS

[A] FOR OPERATION IN A 525-LINE, 30-FRAME SYSTEM AS DESCRIBED IN "STANDARDS OF GOOD ENGINEERING PRACTICE FOR TELEVISION BROADCASTING STATIONS; FEDERAL COMMUNICATIONS COMMISSION". THE DUTY CYCLE OF THE VOLTAGE PULSE NOT TO EXCEED 15% OF A 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 VOLTADE 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.

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

HEATER VOLTAGE	16.8	VOLTS
HEATER CURRENT	0.45	AMP.
PENTODE OPERATION:[C]		
PLATE CURRENT	57	MA.
GRID #2 CURRENT	2.1	MA.
TRANSCONDUCTANCE	5 900	μMHOS
PLATE RESISTANCE	14 500	OHMS
ZERO BIAS:[D]		
PLATE CURRENT	260	MA.
GRID #2 CURRENT	26	MA.
CUTOFF:[E]		
GRID #1 VOLTAGE (APPROX.)	-43	VOLTS
TRIODE AMPLIFICATION FACTOR[F]	4.3	

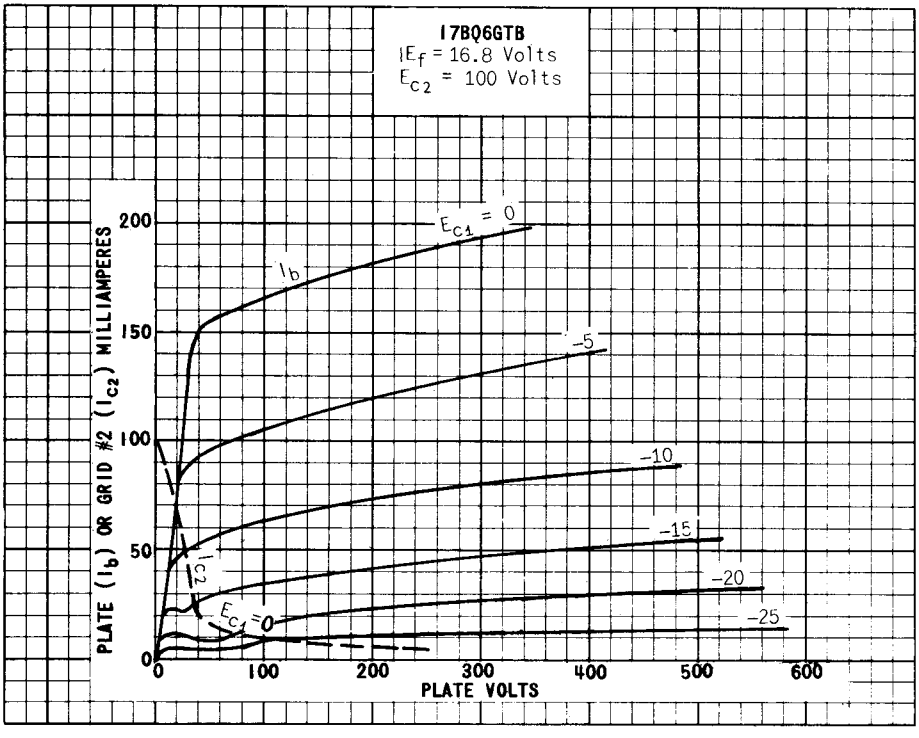
SIMILAR TYPE REFERENCE: Except for heater characteristics, the 17BQ6GTB is identical to the 6BQ6GTB.

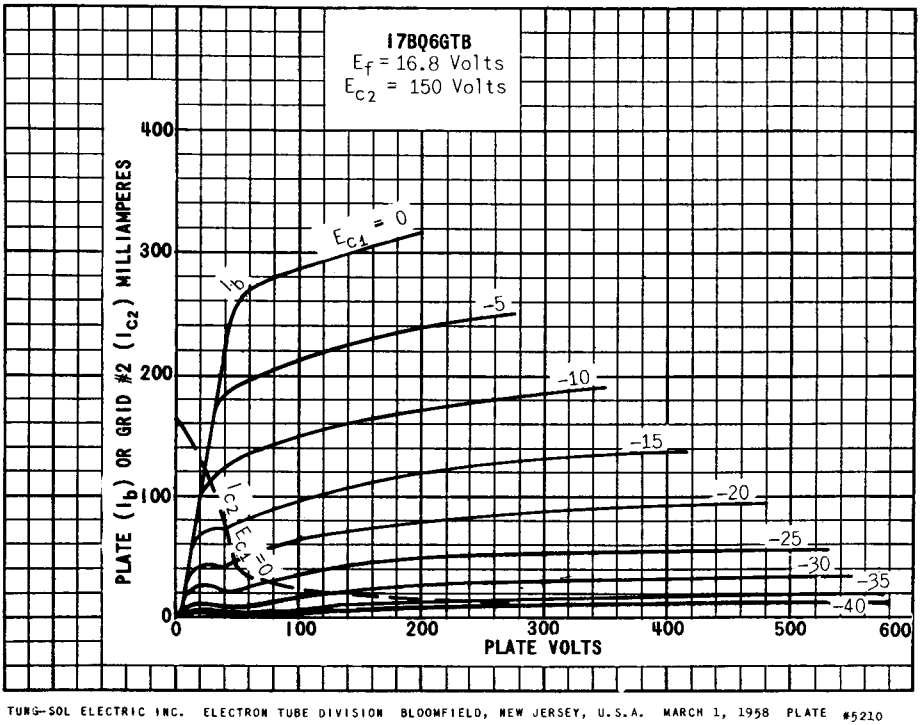
[C] WITH E_b = 250V, E_{c2} = 150V, AND E_{c1} = -22.5V.

[D] WITH E_B = 60V. AND E_{C2} = 150V. (INSTANTANEOUS VALUES)

[E] FOR I_b = 1 MA. WITH E_b = 250V. AND E_{c2} = 150V.

[F] WITH E_b = E_{c2} = 150V. AND E_{c1} = -22.5V.


17BQ6GTB
Ef = 16.8 Volts
Ec2 = 100 Volts
PLATE (Ib) OR GRID #2 (Ic2) MILLIAMPERES
PLATE VOLTS
Ec1 = 0
-5
-10
-15
-20
-25
Ib
Ic2
0
50
100
150
200
300
400
500
600


17BQ6GTB
Ef = 16.8 Volts
Ec2 = 150 Volts
PLATE (Ib) OR GRID #2 (Ic2) MILLIAMPERES
PLATE VOLTS
Ec1 = 0
-5
-10
-15
-20
-25
-30
-35
-40
Ib
Ic2
0
100
200
300
400
500
600