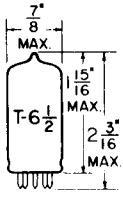
TUNG-SOL

TWIN TRIODE

MINIATURE TYPE

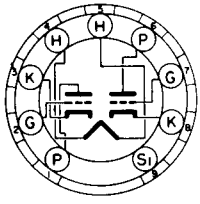


GLASS BULB

COATED UNIPOTENTIAL CATHODE

HEATER
6.3 VOLTS 0.3 AMP
AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW
SMALL-BUTTON
9-PIN NOVAL
9DE

THE 6DT8 IS A GENERAL-PURPOSE HIGH-MU TWIN TRIODE OF THE 9-PIN MINIATURE TYPE INTENDED FOR USE AS AN RF AMPLIFIER AND AS A COMBINED OSCILLATOR-MIXER IN FM TUNERS. THIS TUBE IS ALSO USEFUL IN A WIDE VARIETY OF APPLICATIONS IN RADIO AND TELEVISION RECEIVERS.

DIRECT INTERELECTRODE CAPACTANCES - APPROX.
WITH EXTERNAL SHIELD

	UNIT #1	UNIT #2	
GRID-DRIVE OPERATION:[A]			
GRID TO PLATE	1.6	1.6	μμf
GRID TO CATHODE, HEATER & I.S.	2.7	2.7	μμf
PLATE TO CATHODE, HEATER & I.S.	1.6	1.6	μμf
HEATER TO CATHODE	3.0	3.0	μμf
CATHODE-DRIVE OPERATION:[B]			
CATHODE TO GRID, HEATER, & I.S.	---	5.3	μμf
PLATE TO GRID, HEATER, & I.S.	---	2.8	μμf

RATINGS
INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM
CLASS A1 AMPLIFIER
EACH UNIT

HEATER VOLTAGE	6.3	VOLTS
MAXIMUM PLATE VOLTAGE	300	VOLTS
MAXIMUM GRID VOLTAGE:		
NEGATIVE BIAS VALUE	50	VOLTS
MAXIMUM PLATE DISSIPATION	2.5	WATTS
MAXIMUM PEAK HEATER-CATHODE VOLTAGE:		
HEATER NEGATIVE WITH RESPECT TO CATHODE	200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	200[C]	VOLTS
MAXIMUM GRID-CIRCUIT RESISTANCE:		
FOR FIXED-BIAS OPERATION	0.25	MEGOHM
FOR CATHODE-BIAS OPERATION	1	MEGOHM

[A] WITH EXTERNAL SHIELD, #315 CONNECTED TO CATHODE OF UNIT UNDER TEST.

[B] WITH EXTERNAL SHIELD, #315, CONNECTED TO GRID OF UNIT UNDER TEST.

[C] DC COMPONENT MUST NOT EXCEED 100 VOLTS.

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

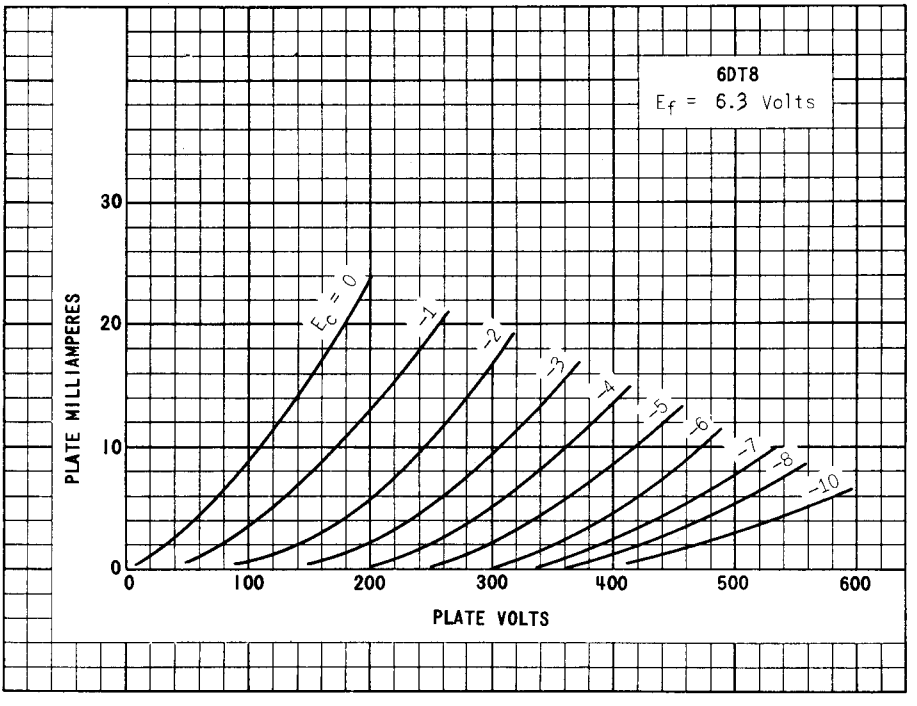
CONTINUED FROM PRECEDING PAGE

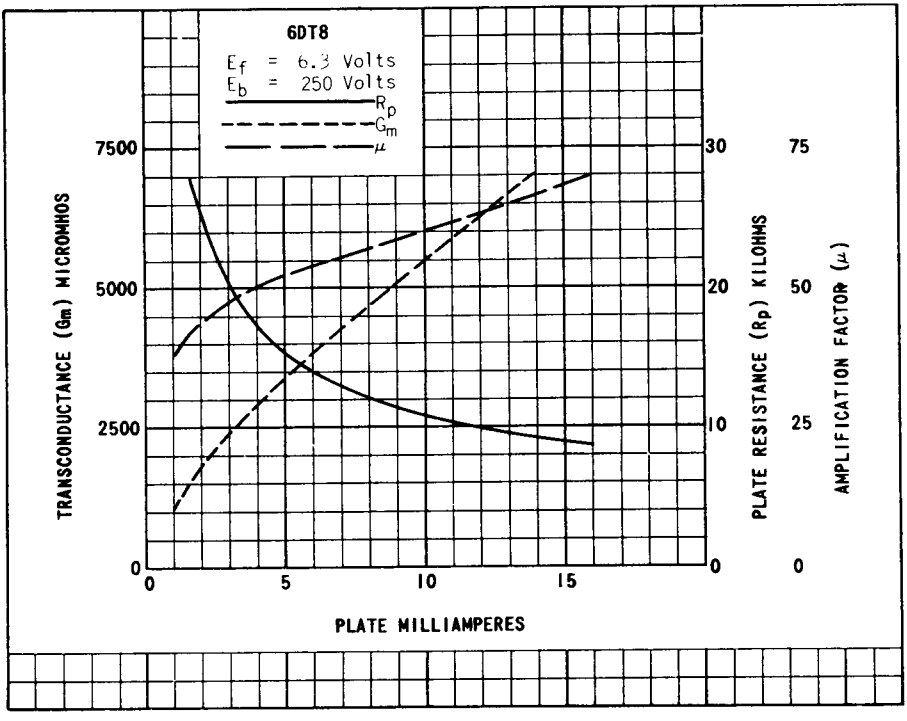
TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A_1 AMPLIFIER

EACH UNIT

HEATER VOLTAGE	6.3	6.3	VOLTS
HEATER CURRENT	0.3	0.3	AMP.
PLATE-SUPPLY VOLTAGE	100	250	VOLTS
CATHODE-BIAS RESISTOR	270	200	OHMS
AMPLIFICATION FACTOR	60	60	
PLATE RESISTANCE (APPROX.)	15 000	10 900	OHMS
TRANSCONDUCTANCE	4 000	5 500	μMHOS
PLATE CURRENT	3.7	10	MA.
GRID VOLTAGE (APPROX.) FOR PLATE CURRENT OF 10 μA.	−5	−12	VOLTS




6DT8
E_f = 6.3 Volts
E_b = 250 Volts
R_p
G_m
μ
TRANSCONDUCTANCE (G_m) MICROMHOS
7500
5000
2500
0
PLATE RESISTANCE (R_p) KILOHMS
30
20
10
0
AMPLIFICATION FACTOR (μ)
75
50
25
0
0
5
10
15
PLATE MILLIAMPERES