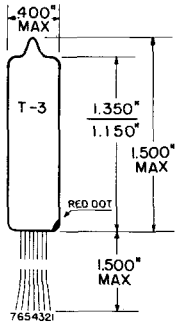
TUNG-SOL

THIS DATA SHEET ALSO APPLIES TO ANOTHER MILITARY VERSION DESIGNATED 5784WB

PENTODE

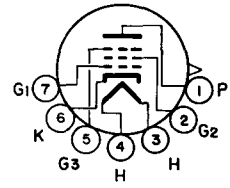
SUBMINIATURE TYPE



GLASS BULB
IN-LINE LEADS
RED DOT IS ADJACENT TO LEAD 1

FOR MOBILE EQUIPMENT APPLICATIONS

ANY MOUNTING POSITION



BOTTOM VIEW
0.016" TINNED
FLEXIBLE LEADS
0.048" CENTER TO CENTER

THE 5784WA IS A HEATER-CATHODE TYPE SUBMINIATURE DUAL-CONTROL PENTODE CAPABLE OF OPERATION IN THE VHF REGION. THE DUAL-CONTROL FEATURE MAKES USE OF THE CONTROL GRID AND SUPPRESSOR GRID AS INDEPENDENT CONTROL ELECTRODES FOR CIRCUITS SUCH AS GATED AMPLIFIERS, MIXERS, AND GAIN CONTROLLED AMPLIFIERS. THE TYPE WILL WITHSTAND SEVERE MECHANICAL SHOCK OR VIBRATION AND HIGH TEMPERATURE SERVICE. THE TERMINAL LEADS MAY BE SOLDERED OR WELDED DIRECTLY TO THE TERMINALS OF THE CIRCUIT COMPONENTS, OR MAY BE OUT TO A SUITABLE LENGTH FOR USE WITH STANDARD SUBMINIATURE SOCKETS.

THE 5784WB IS DESIGNED FOR HIGHLY RELIABLE APPLICATIONS HAVING CAPABILITIES BEYOND THE 5784WA. IT MAY BE USED AS A DIRECT REPLACEMENT HOWEVER IN EQUIPMENT NOW USING THE 5784WA.

DIRECT INTERELECTRODE CAPACITANCES

WITH 0.405" DIAMETER SHIELD[A]

GRID 1 TO PLATE (MAX)	0.030	pf
INPUT	4.5	pf
OUTPUT	3.6	pf

[A] EXTERNAL SHIELD 318 CONNECTED TO LEAD 6.

HEATER CHARACTERISTICS AND RATINGS

ABSOLUTE MAXIMUM VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS	6.3	VOLTS	200	MA.
HEATER SUPPLY LIMITS:				
VOLTAGE OPERATION			6.3 ± 0.6	VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE			200	VOLTS

CONTINUED ON FOLLOWING PAGE

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CONTINUED FROM PRECEDING PAGE

MAXIMUM RATINGS

ABSOLUTE MAXIMUM VALUES - SEE EIA STANDARD RS-239

PLATE VOLTAGE	165	VOLTS
GRID 1 VOLTAGE:		
NEGATIVE BIAS VOLTAGE	55	VOLTS
POSITIVE BIAS VOLTAGE	0	VOLTS
GRID 2 VOLTAGE:	155	VOLTS
GRID 3 VOLTAGE:		
NEGATIVE BIAS VOLTAGE	55	VOLTS
POSITIVE BIAS VOLTAGE	30	VOLTS
PLATE DISSIPATION (DESIGN MAX.)	0.79	WATTS
GRID 2 DISSIPATION (DESIGN MAX.)	0.6	WATTS
GRID 1 CIRCUIT RESISTANCE	1.2	MEGOHM
CATHODE CURRENT	16.5	MADC
ENVELOPE TEMPERATURE	220	°C
ALTITUDE	60,000	FT.

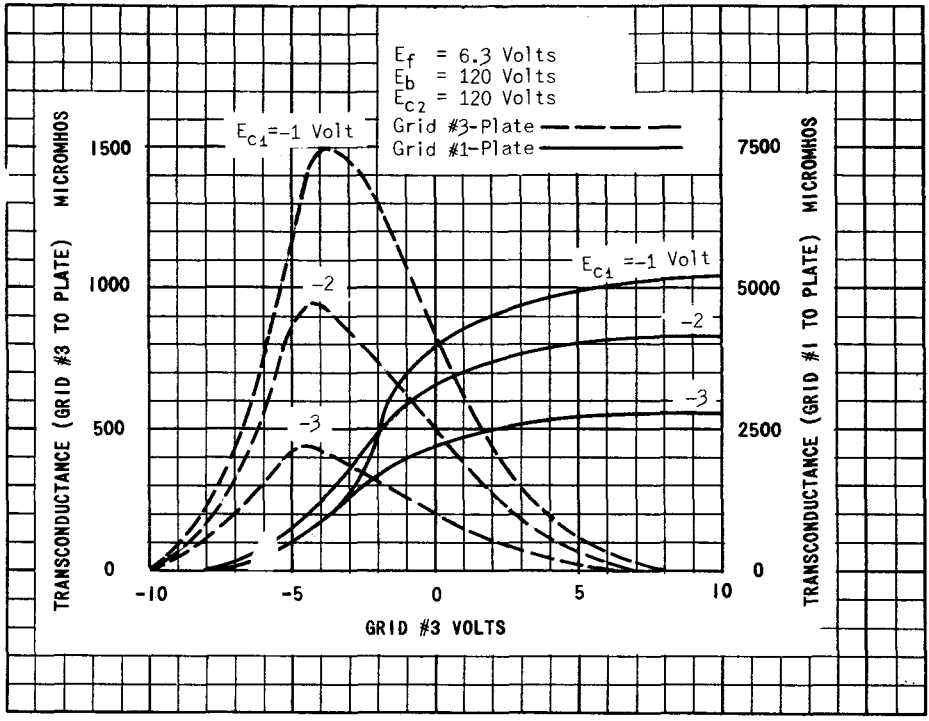
TYPICAL OPERATING CHARACTERISTICS

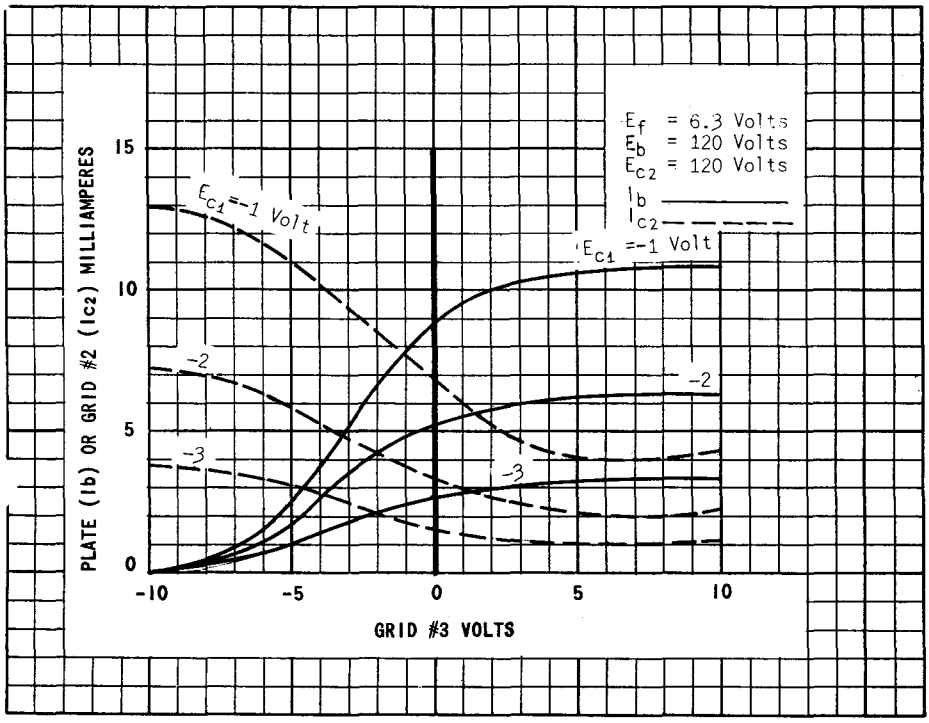
CLASS A1 AMPLIFIER

PLATE VOLTAGE	120	VOLTS
GRID 1 VOLTAGE	0	VOLTS
GRID 2 VOLTAGE	120	VOLTS
GRID 3 VOLTAGE	0	VOLTS
CATHODE BIAS RESISTOR	230	OHMS
PLATE CURRENT	5.5	MA.
TRANSCONDUCTANCE GRID 1 TO PLATE	3200	μMHOS
GRID 2 CURRENT	4.1	MA.

SPECIAL TESTS AND CONTROLS

LOW-PRESSURE VOLTAGE BREAKDOWN
OPERATION TIME (5784WB ONLY)
SWEEP FREQUENCY VIBRATION (5784WB ONLY)
SHOCK (1)
SHOCK (2) (5784WB ONLY)
FATIGUE (1)
FATIGUE (2) (5784WB ONLY)





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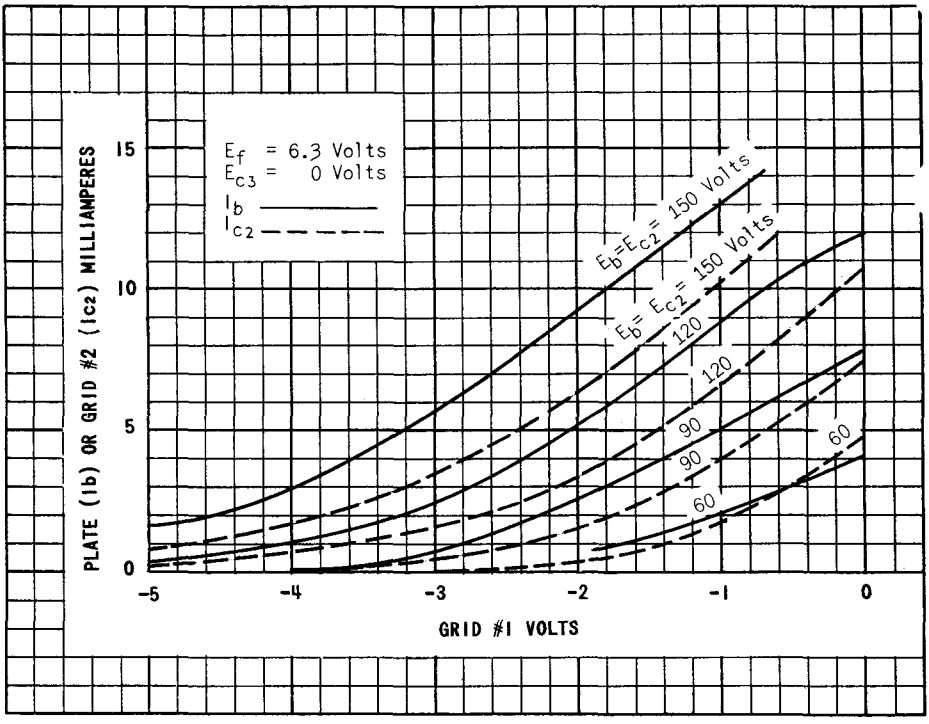
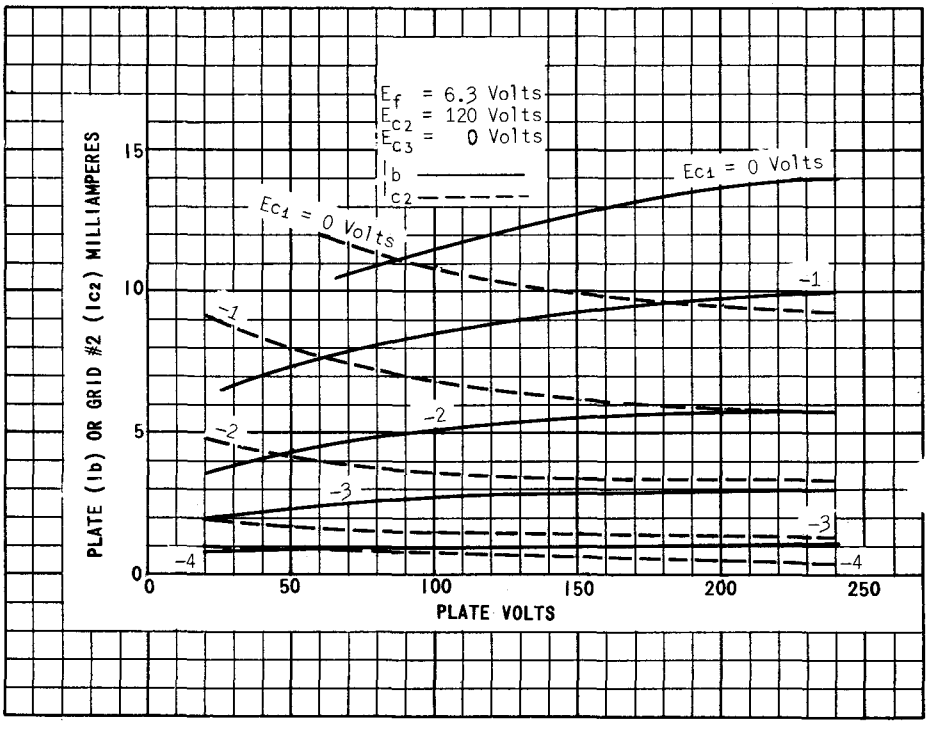
5784WA


Ef = 6.3 Volts
Ec3 = 0 Volts
Ib
Ic2
Eb=Ec2 = 150 Volts
Eb= Ec2 = 150 Volts
120
120
90
90
60
60
PLATE (Ib) OR GRID #2 (Ic2) MILLIAMPERES
15
10
5
0
-5
-4
-3
-2
-1
0
GRID #1 VOLTS


Ef = 6.3 Volts
Ec2 = 120 Volts
Ec3 = 0 Volts
Ib
Ic2
Ec1 = 0 Volts
Ec1 = 0 Volts
-1
-1
-2
-2
-3
-3
-4
-4
PLATE (Ib) OR GRID #2 (Ic2) MILLIAMPERES
15
10
5
0
0
50
100
150
200
250
PLATE VOLTS