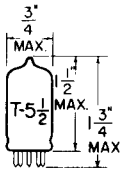
TUNG-SOL

DOUBLE DIODE

MINIATURE TYPE

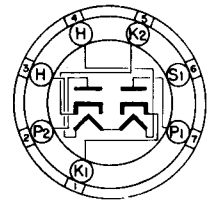


GLASS BULB

COATED UNIPOTENTIAL CATHODE

HEATER
6.3±10% VOLTS 0.3 AMP.
AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW
MINIATURE BUTTON
7 PIN BASE
6BT

THE 6AL5 COMBINES TWO INDEPENDENT DIODE UNITS IN THE 7 PIN MINIATURE CONSTRUCTION. ITS HIGH PERVEANCE PERMITS HIGH EFFICIENCY IN EITHER FM OR AM DETECTOR SERVICE.

DIRECT INTERELECTRODE CAPACITANCES

	WITHOUT SHIELD	WITH SHIELD[A]	
PLATE INPUT: P TO (H+K+IS) EACH UNIT	2.5	3.2	μμf
COUPLING: 1P TO 2P (MAX.)	0.068	0.026	μμf
CATHODE INPUT: K TO (P+H+IS) EACH UNIT	3.4	3.6	μμf

[A] EXTERNAL SHIELD #316 CONNECTED TO PIN #6.

→ RATINGS

INTERPRETED ACCORDING TO DESIGN MAXIMUM SYSTEM

HEATER VOLTAGE	6.3±10%	VOLTS
MAXIMUM PEAK HEATER-CATHODE VOLTAGE:		
HEATER NEGATIVE WITH RESPECT TO CATHODE	330[A]	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	200[B]	VOLTS
MAXIMUM PEAK INVERSE VOLTAGE	330	VOLTS
MAXIMUM AC PLATE VOLTAGE (EACH PLATE) RMS	117	VOLTS
MAXIMUM STEADY STATE PEAK PLATE CURRENT (EACH PLATE)	54	MA.
MAXIMUM DC OUTPUT CURRENT (EACH PLATE)	9	MA.
MINIMUM TOTAL EFFECTIVE PLATE SUPPLY IMPEDANCE (EACH PLATE)	300	OHMS
HEATER WARM-UP TIME (APPROX.)*	11.0	SECONDS

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

HALF-WAVE RECTIFIER

HEATER VOLTAGE	6.3±10%	VOLTS
HEATER CURRENT	0.3	AMP.
AVERAGE DIODE CURRENT (EACH UNIT) AT 10 VOLTS DC	60	MA.

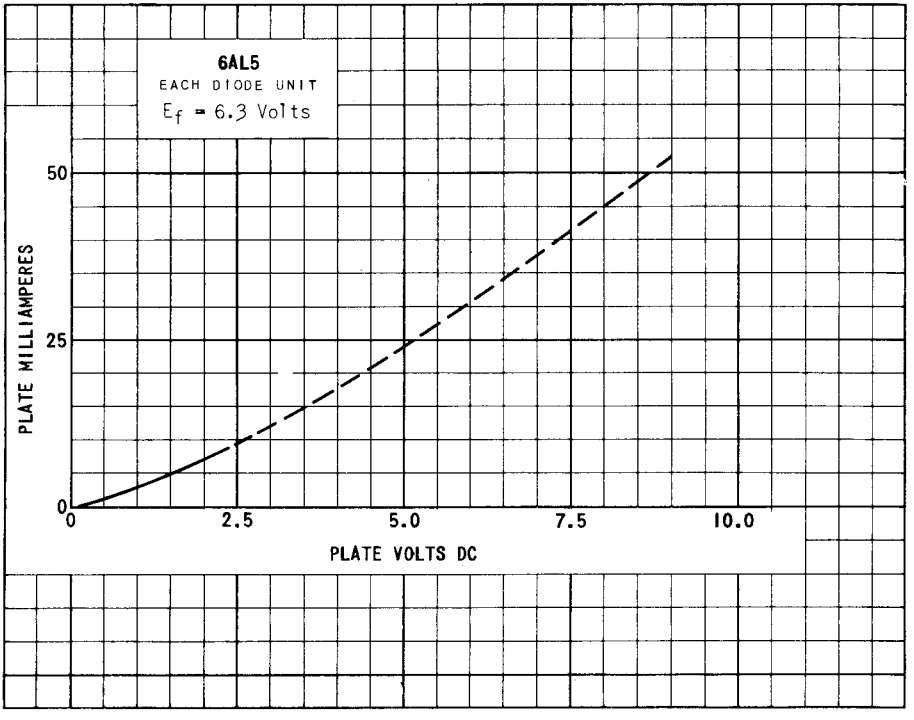
THE RESONANT FREQUENCY OF EACH UNIT OF THE 6AL5 IS 700 MC. (APPROX.)

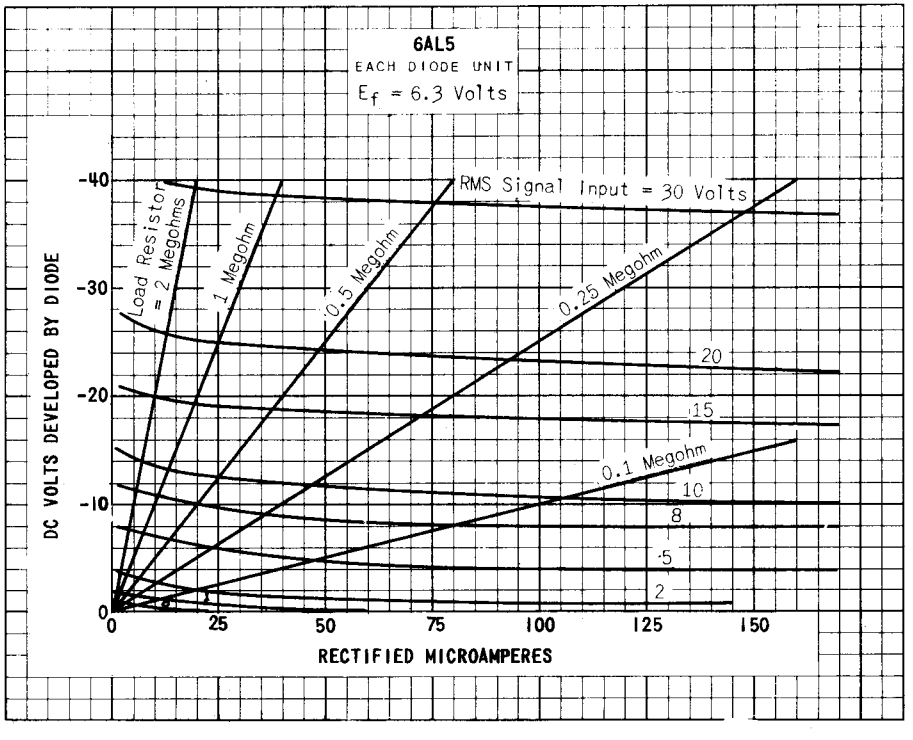
[A] DC COMPONENT MUST NOT EXCEED 330 VOLTS

[B] DC COMPONENT MUST NOT EXCEED 100 VOLTS.

→ INDICATES A CHANGE.

6AL5


6AL5
EACH DIODE UNIT
E_f = 6.3 Volts
PLATE MILLIAMPERES
50
25
0
0
2.5
5.0
7.5
10.0
PLATE VOLTS DC

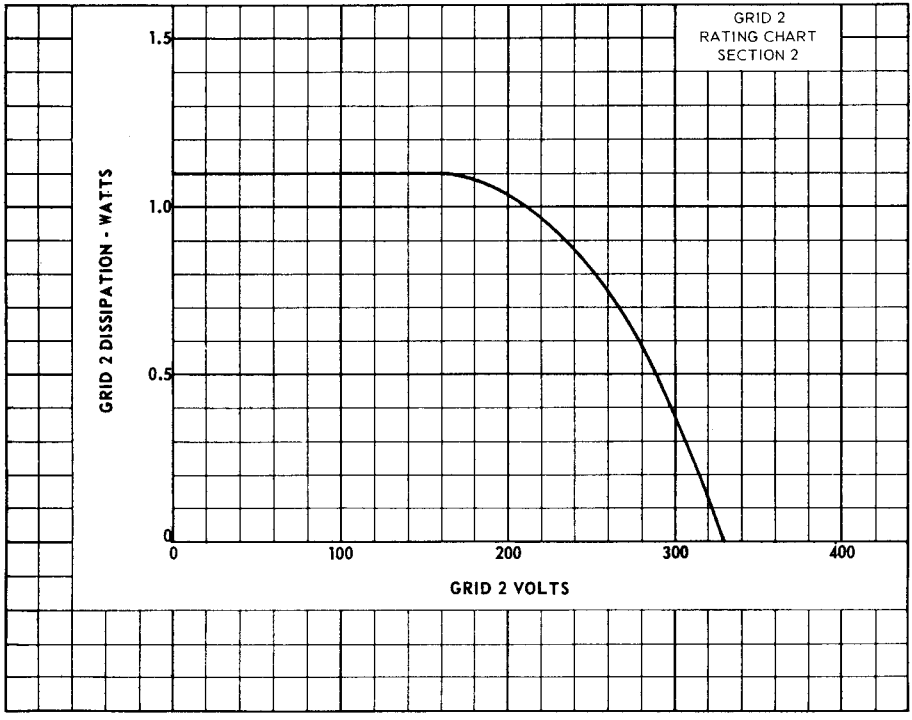

6AL5
EACH DIODE UNIT
E_f = 6.3 Volts
DC VOLTS DEVELOPED BY DIODE
-40
-30
-20
-10
0
Load Resistor = 2 Megohms
1 Megohm
0.5 Megohm
0.25 Megohm
0.1 Megohm
RMS Signal Input = 30 Volts
20
15
10
8
5
2
0
25
50
75
100
125
150
RECTIFIED MICROAMPERES

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

AVERAGE CHARACTERISTICS - SECTION 2

PLATE VOLTAGE		150	VOLTS
GRID 2 VOLTAGE		100	VOLTS
GRID 3 VOLTAGE		0	VOLTS
CATHODE-BIAS RESISTOR		560	OHMS
PLATE CURRENT		1.3	MA.
GRID 2 CURRENT		2.1	MA.
GRID 1 TRANSCONDUCTANCE		1,000	MICROMHOS
GRID 3 TRANSCONDUCTANCE		400	MICROMHOS
PLATE RESISTANCE	Approx.	0.15	MEGOHMS
GRID 1 VOLTAGE FOR I_b = 30 μA	Approx.	-4.5	VOLTS
GRID 3 VOLTAGE FOR I_b = 50 μA	Approx.	-4.5	VOLTS



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