5726

TWIN DIODE

"Premium" Miniature Type

TENTATIVE DATA

RCA-5726 is a high-perveance, miniature twin diode especially useful as a detector in circuits utilizing wide-band amplifiers. Constructed to give dependable performance under shock and vibration, this "premium" version of the 6AL5W is, therefore, well suited for use in mobile and aircraft equipment.

The two, sturdy, coiled heaters used in the 5726 are internally connected in series to provide fail-safe operation in applications which require that burn-out of either heater will make the heaters of both units simultaneously inoperative. These heaters employ pure tungsten to provide long life under conditions of frequent on-off switching.

Each 5726 is manufactured under rigid controls and undergoes rigorous tests to insure "premium" quality.

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:		
Voltage (AC or DC)	6.3 ±10%	volts
Current	0.3	ampere
Resonant Frequency (Each unit, approx.)	700	Mc
Direct Interelectrode Capacitances (With external shield JETEC No.316):		
Unit No.1:		
Plate to Cathode + External Shield, Heater, and Internal Shield	3.2	μμf
Cathode to Plate + External Shield, Heater, and Internal Shield	3.9	μμf
Unit No.2:		
Plate to Cathode + External Shield, Heater, and Internal Shield	3.2	μμf
Cathode to Plate + External Shield, Heater, and Internal Shield	3.9	μμf
Plate of Unit No.1 to Plate of Unit No.2●	0.026 max.	μμf

Mechanical:

Mounting Position	Any
Maximum Overall Length	1-3/4"
Maximum Seated Length	1-1/2"
Length, Base Seat to Bulb Top (Excluding tip)	1-1/8" ±3/32"
Maximum Diameter	3/4"
Bulb	T-5-1/2
Base	Small-Button Miniature 7-Pin (JETEC No.E7-1)

HALF-WAVE RECTIFIER

Maximum Ratings, *Absolute Values*:

PEAK INVERSE PLATE VOLTAGE	360 max.	volts
PEAK PLATE CURRENT PER PLATE	60 max.	ma
HOT-SWITCHING TRANSIENT PLATE CURRENT For duration of 0.2 second maximum	350 max.	ma
DC OUTPUT CURRENT PER PLATE	10 max.	ma
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode	360 max.	volts
Heater positive with respect to cathode	360 max.	volts

Typical Operation:

The two units may be used separately or in parallel

AC Plate-Supply Voltage Per Plate (RMS)	117	volts
Minimum Total Effective Plate-Supply Impedance Per Plate	300	ohms
DC Output Current Per Plate	9	ma

Shock and Vibration Tests:

These tests are made as indicated in the JAN Specifications: JAN 1-A for Electron Tubes, May 1946 under the section as follows:

Section F6b (9e) Shock Test:		
Instantaneous Impact Acceleration	700 max.	g
Section F6b (9f) Vibration Test:		
Vibrational Acceleration	2.5 max.	g

Heater Cycling Life Test:

This test is made as indicated in the JAN Specifications JAN 1-A for Electron Tubes for type 5726/6AL5W.

Cycles of Intermittent Operation:		
At a heater voltage of 7.5 volts	2000 min.	cycles

Characteristics Range Values for Equipment Design:

	Note	*Min.*	*Max.*	
Heater Current	1	0.275	0.325	amp
Direct Interelectrode Capacitances (With external shield JETEC No.316):				
Unit No.1:				
Plate to Cathode + External Shield, Heater, and Internal Shield	–	2.4	4.0	μμf
Cathode to Plate + External Shield, Heater, and Internal Shield	–	2.8	4.4	μμf
Unit No.2:				
Plate to Cathode + External Shield, Heater, and Internal Shield	–	2.4	4.0	μμf
Cathode to Plate + External Shield, Heater, and Internal Shield	–	2.8	4.4	μμf
Plate of Unit No.1 to Plate of Unit No.2	2	–	0.026	μμf
Plate Current (Per Plate)	1,3	40	–	ma

Note 1: With 6.3 volts ac on heater.

Note 2: With external and internal shield connected to ground.

Note 3: With dc plate voltage = 10 volts. Each unit tested separately with electrodes of opposite unit grounded.

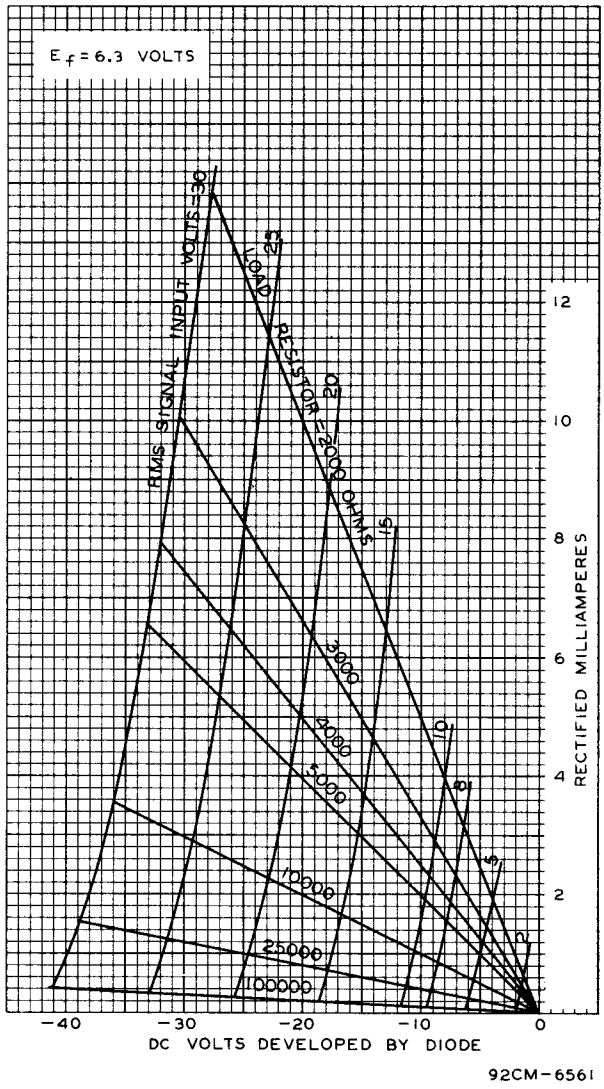
● With external and internal shield connected to ground.

OPERATING NOTES

The *maximum ratings* in the tabulated data for the 5726 are limiting values above which the serviceability of the 5726 may be impaired from viewpoint of life and satisfactory performance. Therefore, in order not to exceed these absolute ratings, the equipment designer has the responsibility of determining an average design value for each rating below the absolute value of that rating by an amount such that the absolute values will never be exceeded under any usual condition of supply-voltage variation, load variation, or manufacturing variation in the equipment itself.

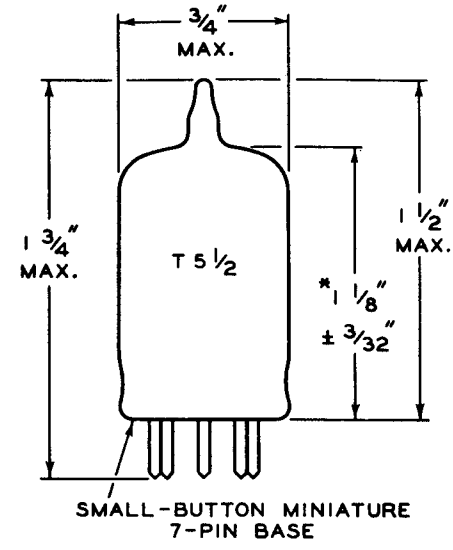
TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

5726-6-52
Photolithographed in U.S.A.



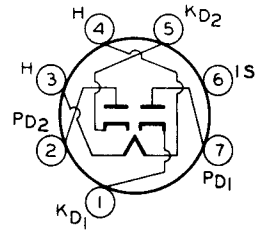
Half-Wave Rectification Characteristics for Single Diode of Type 5726.

DIMENSIONAL OUTLINE

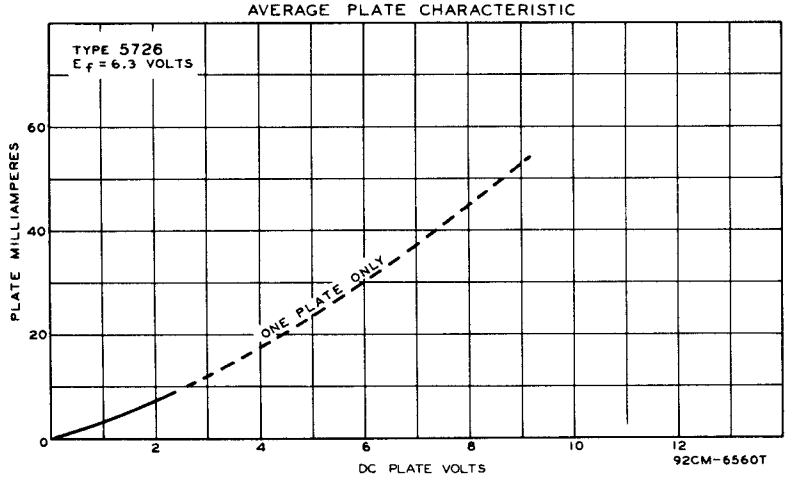


* MEASURED FROM BASE SEAT TO BULB-TOP LINE AS DETERMINED BY RING GAUGE OF 7/16" I.D.

SOCKET CONNECTIONS
Bottom View



PIN 1: CATHODE OF DIODE UNIT NO. 1
PIN 2: PLATE OF DIODE UNIT NO. 2
PIN 3: HEATER
PIN 4: HEATER
PIN 5: CATHODE OF DIODE UNIT NO. 2
PIN 6: INTERNAL SHIELD
PIN 7: PLATE OF DIODE UNIT NO. 1



Average Plate Characteristic for Either Unit of Type 5726.