

MINISTRY OF SUPPLY (S.R.D.E.)

Specification MOS/CV1863/Issue 4 Dated:- 21.10.46 To be read in conjunction with K1001, ignoring clauses 5.2, 5.8.	<u>SECURITY</u>	
	<u>Specification</u> Restricted	<u>Valve</u> Unclassified

—————> indicates a change

<u>TYPE OF VALVE</u> :- High vacuum full wave rectifier.		<u>MARKING</u>	
<u>CATHODE</u> :- Indirectly heated		See K1001/4	
<u>ENVELOPE</u> :- Glass - unmetallised		Additional marking :-	
<u>PROTOTYPE</u> :- 5Z4G		5Z4G	
<u>RATING</u>		<u>BASE</u>	
	<u>Note</u>	<u>IO</u>	
Heater voltage (V)	5.0	<u>Pin</u>	<u>Electrode</u>
Nominal Heater current (A)	2.0	1	No connection
Max. applied R.M.S. voltage (V)	350	2	Heater
Max. working peak inverse voltage (V)	1000	3	Pin omitted
Max. no load peak inverse voltage (V)	1250	4	Anode
Max. mean D.C. rectified current (mA)	125	5	Pin omitted
Max. peak anode current (mA)	375	6	Anode
Max. reservoir condenser (uF)	16	7	Pin omitted
Min. limiting resistance per anode, introduced externally (ohms)	30	8	Heater and cathode
(Ratings apply to condenser input filter and 50 c.p.s. supply).		<u>DIMENSIONS</u>	
		See K1001/AI/D1	
		<u>Dimension</u>	<u>Min.</u>
A	mm	-	118
B	mm	-	46

To be performed in addition to those applicable in K1001

	Test conditions		Test	Limits		No. tested
				Min.	Max.	
a	Vh	Va	Ih (A)	-	2.2	100% or S
	5.0 A.C. or D.C.					
b	5.0 A.C. or D.C.	25 D.C. max.	Ia (mA) Note 1	125	-	100%
c	5.0 A.C.	Input voltage 350- 0-350 R.M.S. Frequency 50 c.p.s. D.C. Load 125 mA. Reservoir condenser 8 uF. Effective resistance per anode introduced externally 30 ohms.	<u>Load test</u> Output voltage Run 1 minute - reject for softness or persistent flashover.	400	-	5% (20)

NOTE

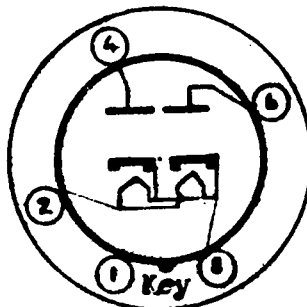
1. Test to be applied to each anode.

Data given for information of equipment designers and not subject to acceptance testing.

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No. of pages:- 2.

Vh = 5.0 V.
Ih = 1.5 A.

See specification for dimensions, connections and main ratings (with condenser input-filter).



Bottom
View

TYPICAL OPERATING CONDITIONS WITH
CHOKE-INPUT FILTER

A.C. Anode Voltage Per ... 500
Anode (V. R.M.S.)
Input Choke Inductance ... 5 Min.
(Henries)
D.C. Output Current (mA) ... 125

Pin

Electrode

1	Internal Shield
2	Heater and Cathode
3	Pin Omitted
4	Anode
5	Pin Omitted
6	Anode
7	Pin Omitted
8	Heater and Cathode

NOTE

When a filter-input condenser larger than 40 μ F is used, it may be necessary to use more limiting resistance per anode than the minimum value shown in specification.

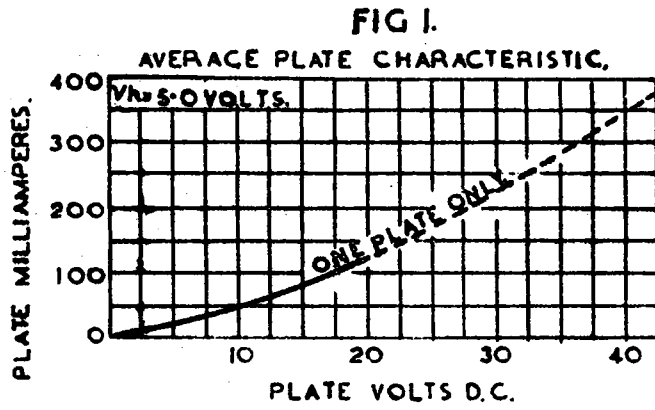


FIG 2.
OPERATION CHARACTERISTICS:

- CHOKE (L) INPUT TO FILTER:
L = 5 HENRIES (MIN.)
- CONDENSER (C) INPUT TO FILTER:
TOTAL EFFECT, PLATE-SUPPLY.
IMPEDANCE PER PLATE = 30 OHMS.

$V_{b0} = 50$ VOLTS.

