

ADMIRALTY SIGNAL AND RADAR ESTABLISHMENT

CV2984

Specification AD/CV2984 incorporating MIL-E-1/209 Issue 1 Dated 25.9.58 To be read in conjunction with K1006.	<u>SECURITY</u>	
	<u>Specification</u> Unclassified	<u>Valve</u> Unclassified

TYPE OF VALVE - DOUBLE TRIODE CATHODE - INDIRECTLY HEATED ENVELOPE - GLASS PROTOTYPE - 6080	<u>MARKING</u> K1001/4 Additional Marking 6080
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<u>RATING</u> (All limiting values are absolute)	<u>BASE</u> Large wafer octal with metal sleeve.
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		Note																							
Heater Voltage (V)	6.3	A A A, B A, B C	<table border="1"> <tr> <th colspan="2" style="text-align: center;"><u>CONNECTIONS</u></th> </tr> <tr> <th style="text-align: center;"><u>Pin</u></th> <th style="text-align: center;"><u>Electrode</u></th> </tr> <tr> <td>1.</td> <td>Grid 2 g2</td> </tr> <tr> <td>2.</td> <td>Anode 2 a2</td> </tr> <tr> <td>3.</td> <td>Cathode 2 k2</td> </tr> <tr> <td>4.</td> <td>Grid 1 g1</td> </tr> <tr> <td>5.</td> <td>Anode 1 a1</td> </tr> <tr> <td>6.</td> <td>Cathode 1 k1</td> </tr> <tr> <td>7.</td> <td>Heater h</td> </tr> <tr> <td>8.</td> <td>Heater h</td> </tr> </table>	<u>CONNECTIONS</u>		<u>Pin</u>	<u>Electrode</u>	1.	Grid 2 g2	2.	Anode 2 a2	3.	Cathode 2 k2	4.	Grid 1 g1	5.	Anode 1 a1	6.	Cathode 1 k1	7.	Heater h	8.	Heater h		
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Heater Current (A)	2.5																								
Max. D.C. Supply Voltage (V)	250																								
Max. D.C. Anode Current (mA)	125																								
Max. Anode Dissipation (W)	13																								
Max. Heater-cathode Voltage (V)	300																								
Amplification Factor	2.0																								
Mutual Conductance (mA/V)	7.0																								
Max. Grid Resistance (MΩ)	1.0																								
Max. Bulb Temperature (C°)	200																								
Max. Altitude (ft)	10,000																								
		<u>DIMENSIONS (ins.)</u>																							
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		<u>MOUNTING POSITION</u>		Any																					

<u>NOTES</u>	
A.	Each section.
B.	Measured at $V_a = 135V$, $R_k = 250Ω$.
C.	For cathode bias operation. $0.1MΩ$ (Max.) for fixed bias operation

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JAN-6080

Ratings:	Ef	Eb	Ec	Ip/p	Fp/p	Ehk	R1g	R1k	T Bulb	Alt.
Absolute	V	Vdc	Vdc	mAdc	W	V	R2g	R2k	°C	..
Maximum:	6.3, 10%	250	—	125	13	300	Meg	ohms	Note 1	10,000

Test Cond.: 6.3 135 0 — — — — 250 —

*Height: 4 1/4 in. Max. *Diameter: 1 23/32 in. Max.

**Base: Large Wafer Octal With Metal Sleeve, B8-32

**Pin No.: 1 2 3 4 5 6 7 8 **Cathode: Coated Unipotential
 Element: 2g 2p 2k 1g 1p 1k h h **Envelope: T-12 (6-1)

Ref.	Test	Conditions	Min	Max
3.1	Qualification Approval:	Required for JAN Marking		
4.9.18.1.1	Carton Drop:	(d) Package Group 1; Carton Size F		
4.9.20.4	*Vibration:	Rp=2000 ohms; Ec=-7Vdc; Note 2	Ep: —	200 mVac
4.10.8	*Heater Current:		If: 2.26	2.74 A
4.10.15	*Heater-Cathode: Leakage:	Ehk=100 Vdc	Ihk: 0	50 uAdc
4.8	Insulation of Electrodes:	Ef=6.3V		
4.10.6.1	+Grid Current:	Rg=1.0 Meg; Note 3	Ic: 0	-5.0 uAdc
4.10.4.1	Plate Current(1):	Note 4	Ib: 100	150 mAdc
4.10.4.1	Plate Current(2):	Eb=250Vdc; Ec=-200Vdc; Note 4	Ib: —	10 mAdc
4.10.9	Transconductance(1):	Note 4; Note 6	Sm: 5800	8200umhos
4.10.9	*Transconductance(2):	Ef=5.7V; Note 4; Note 6	Sm: 5300	—umhos
4.10.1.1	Emission:	Eb=Ec=15Vdc; Rk=0; Note 5	Is: 110	— mAdc
4.11	Life Test:	Group A; Ehk=300Vdc; Rk=125ohms; Rg=1.0 Meg; Note 2	t: 500	—hrs.
4.11.4	Life Test End Point:	Transconductance(1)	Sm: 4900	—umhos

Note 1: Maximum Circuit Values:

Grid Current Resistance

For cathode-bias operation	*	1.0 Meg. Max.
For fixed-bias operation	*	0.1 Meg. Max.
For combined fixed and cathode-bias operation	#	0.1 Meg. Max.

APPROVED 20 May 1953 REVISED

CUSTODIANS:
 Army-Signal Corps
 Navy-Bureau of Ships
 Air Force
 PROCUREMENT SPECIFICATION

SPECIFICATION SHEET

LOW MU TWIN TRIODE, RECEIVING

6080

MIL-E-1/209

SHEET 1 OF 2

Other interest: Army - CMOT

Navy - AMMIOrs

NOTICE: When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded as implicit authorization or otherwise in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

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- * When fixed bias is used, the plate circuit should contain a protective resistance to provide a minimum drop of 15 Vdc at the normal operating conditions.
- # When combined fixed and cathode-bias is used, the cathode-bias portion should have a minimum value of 7.5 Vdc at the normal operating conditions.

- Note 2: Tie 1p to 2p, 1g to 2g, and 1k to 2k.
- Note 3: With both units operating, Ic is the sum of I1c and I2c.
- Note 4: With both units operating, read each unit separately.
- Note 5: Read each unit separately. Ground unit not under test.
- Note 6: Rk by-passed with 1000 uf capacitor.
- Note 7: Reference specification shall be of the issue in effect on the date of invitation for bids.

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CUSTODIANS: Army-Signal Corps Navy-Bureau of Ships Air Force	SPECIFICATION SHEET		MIL-E-1/209
	PROCUREMENT SPECIFICATION LOW MU TWIN POWER TRIODE, RECEIVING	6080	SHEET 2 OF 2

Other interest: Army - CMOT Navy - ADMOrs