

ELECTRONIC VALVE SPECIFICATION

CV 2239 Issue 3 dated 23/3/56.

AMENDMENT No. 1.

Page A Base.

Delete:- See Appendix I to CV2237

Dimensions

Delete:- See Appendix I to CV2237

December, 1961.
N 7727

Signals Radio Development
Establishment

Specification MOS/CV2239 incorporating MIL-E-1/79A Issue 3 Dated: 23.3.56. To be read in conjunction with K1006 and BS1409		<u>SECURITY</u> Specification Valve Unclassified Unclassified																
← Indicates a change																		
<u>TYPE OF VALVE:</u> Triode H.F. Oscillator <u>CATHODE:</u> Directly Heated <u>ENVELOPE:</u> Glass, Unmetallised <u>PROTOTYPE:</u> 5676		<u>MARKING</u> See K1001/4 except that the valve shall only be marked with the CV No., factory and date code, and "5676".																
<u>RATING</u>		<u>BASE</u> See App. I BS448/B5G/F to CV2237 (In line - lead sub-miniature)																
Filament Voltage (V) 1.25 Filament Current (mA) 120 Max. Anode Voltage (V) 150 Anode Current (mA) 4 Mutual Conductance (mA/V) 1.65 Amplification Factor 15 Max. Operating Frequency (Mc/s) 350 Max. Cathode Current (mA) 11		Note A B B B A	<u>CONNECTIONS</u> <table border="1"> <thead> <tr> <th>Pin</th> <th>Electrode</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>p red dot</td> </tr> <tr> <td>2</td> <td>pin omitted</td> </tr> <tr> <td>3</td> <td>-f</td> </tr> <tr> <td>4</td> <td>g1</td> </tr> <tr> <td>5</td> <td>+f</td> </tr> </tbody> </table>	Pin	Electrode	1	p red dot	2	pin omitted	3	-f	4	g1	5	+f			
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<u>CAPACITANCES (pF)</u> Cg1p (Nom.) 1.3 Cin (Nom.) 1.35 Cout (Nom.) 3.25		<u>DIMENSIONS</u> See App. I See BS448/B5G/F to CV2237 Size reference No. 1 <table border="1"> <thead> <tr> <th>DIMENSIONS (Inches)</th> <th>MIN.</th> <th>MAX.</th> </tr> </thead> <tbody> <tr> <td>A. Overall length</td> <td>-</td> <td>1.502</td> </tr> <tr> <td>Diameter B minor</td> <td>-</td> <td>0.286</td> </tr> <tr> <td>C major</td> <td>-</td> <td>0.386</td> </tr> <tr> <td>Lead length</td> <td>1.5</td> <td>-</td> </tr> </tbody> </table>		DIMENSIONS (Inches)	MIN.	MAX.	A. Overall length	-	1.502	Diameter B minor	-	0.286	C major	-	0.386	Lead length	1.5	-
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		<u>MOUNTING POSITION</u> Any																

NOTES

- A. Absolute maximum or minimum values.
- B. Measured at $V_a = 135$. $V_{g1} = -5.0$

CV2239/3/A

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 by implication or otherwise as 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.

					JAN-5676
Ratings:	Ef	Eb	Ecl	Ik	Alt.
Absolute	Vdc	Vdc	Vdc	mAdc	ft.
Maximum:	1.25/20%	150	—	11	10,000
Test Cond.:	1,25	135	-5.0	—	—
*Height: Max. 1.5 in.			*Diameter: Major: .385 in. max.		
**Base: Flat Press (.016 in. tinned flexible leads)			Minor: .285 in. max.		
Length=1.5 in., Spacing .050 in. c/c					
**Lead No.:	1 2 3 4			**Cathode: Coated Filament	
Element:	p -f g /f			**Envelope: T-2x3 glass (8-8)	
	Red dot				

Ref.	Test	Conditions	Min.	Max.
3.1	Qualification Approval:	Required for JAN Marking		
4.9.18.1.1 F-6a(3b)	Drop:	(d) Package Group 1; Carton Size D		
---	**Filament-Plate Short:	Note 1		
4.9.5.3	#Subminiature Lead Fatigue:		3	— arcs
4.10.8 F-6i	*Filament Current:		If: 106	134 mAdc
4.10.6.1 F-6g(1)	†Grid Current:		Icl: 0	-0.5 uAdc
4.10.4.1 F-6f(1)	Plate Current:		Ib: 3.0	5.0 mAdc
4.10.9 F-6j	*Transconductance(1):		Sm: 1300	2000 umhos
4.10.9 F-6j	†Transconductance(2):	Ef=1.0V	Sm: 1200	2000 umhos
4.10.11.1 F-6l(1)	*Amplification Factor:		Mu: 12.75	17.5
4.10.14 F-6p	*Capacitance:	Note 2	Cgp: 1.0	1.6 uuf
			Cin: 1.0	1.7 uuf
			Cout: 2.5	4.0 uuf
4.11 F-4	Life Test:	Group A; Rg=0.010 Meg. (min); Ef=1.25 Vdc or Vac with equivalent bias	t: 100	— hrs.
4.11.4 F-4b	Life Test End Point:	Transconductance (1):	Sm: 950	— umhos
<p>Note 1: Raise Ef until filament opens. Test for filament to plate short only. After performance of the filament burn-out test, if the short circuit shall pass in excess of five times the rated filament current without burning out the short circuit, the tube shall be deemed a failure. This test shall be performed by a Service Laboratory on three tubes, which shall be in addition to the required number of qualification approval samples. Manufacturer's date are not required for this test.</p> <p>Note 2: With close fitting shield connected to negative filament.</p> <p>Note 3: Referenced specification shall be of the issue in effect on date of invitation for bids.</p>				

CUSTODIANS: Army-Signal Corps Navy-Bureau of Ships Air Force PROCUREMENT SPECIFICATION MIL-E-1	<h2 style="margin: 0;">SPECIFICATION SHEET</h2> <p style="margin: 0;">SUBMINIATURE TRIODE, RF OSCILLATOR, RECEIVING</p>	MIL-E-1/79A SHEET 1 OF 1	5676
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APPROVED 5 Feb 1953 REVISED 20 May 1953