

VALVE ELECTRONIC CV2489

Specification MOS/CV2489	<u>SECURITY</u>	
Issue 1 dated 13.1.59	<u>Specification</u>	<u>Valve</u>
To be read in conjunction with K1001 and BS445	Unclassified	Unclassified

— indicates a change

TYPE OF VALVE - Cathode Ray Tube					<u>MARKING</u>	
DEFLECTION - Magnetic					See K1001/4	
FOCUS - Electrostatic						
BULB - Glass with internal conductive coating					<u>BASE</u>	
SCREEN - GY/8					BS448/B12A	
PROTOTYPE - M5RM - 321						
<u>RATINGS</u>					<u>CONNECTIONS</u>	
All limiting values are absolute					Pin	Electrode
					Note	
Heater Voltage	(V)	6.3			1	Heater
Heater Current	(A)	0.5			2	Grid
Max. Anode 1 and Anode 3 voltage	(kV)	10	A		3	-
Max. Anode 2 voltage range for focussing	(V)	±100			4	-
Max. negative Anode 2 voltage	(V)	150			5	-
Max. negative heater-cathode voltage	(V)	150	A		6	Anode 2
Typical operating Conditions					7	-
Anode 1 & 3 voltage	(kV)	8			8	-
Anode 2 voltage	(V)	0			9	-
Grid voltage for cut-off	(V)	-50			10	-
					11	Cathode
					12	Heater
					SC	Anode 1, Anode 3
					<u>SIDE CONTACT</u>	
					BS448/CT8	
<u>CAPACITANCES</u>					<u>DIMENSIONS</u>	
Cg-all (nom)	(pf)	9.5			See drawing on page 4	
Ck-all (nom)	(pf)	6.5				
<u>NOTES</u>						
A. Absolute Maximum Value						

General Test Conditions

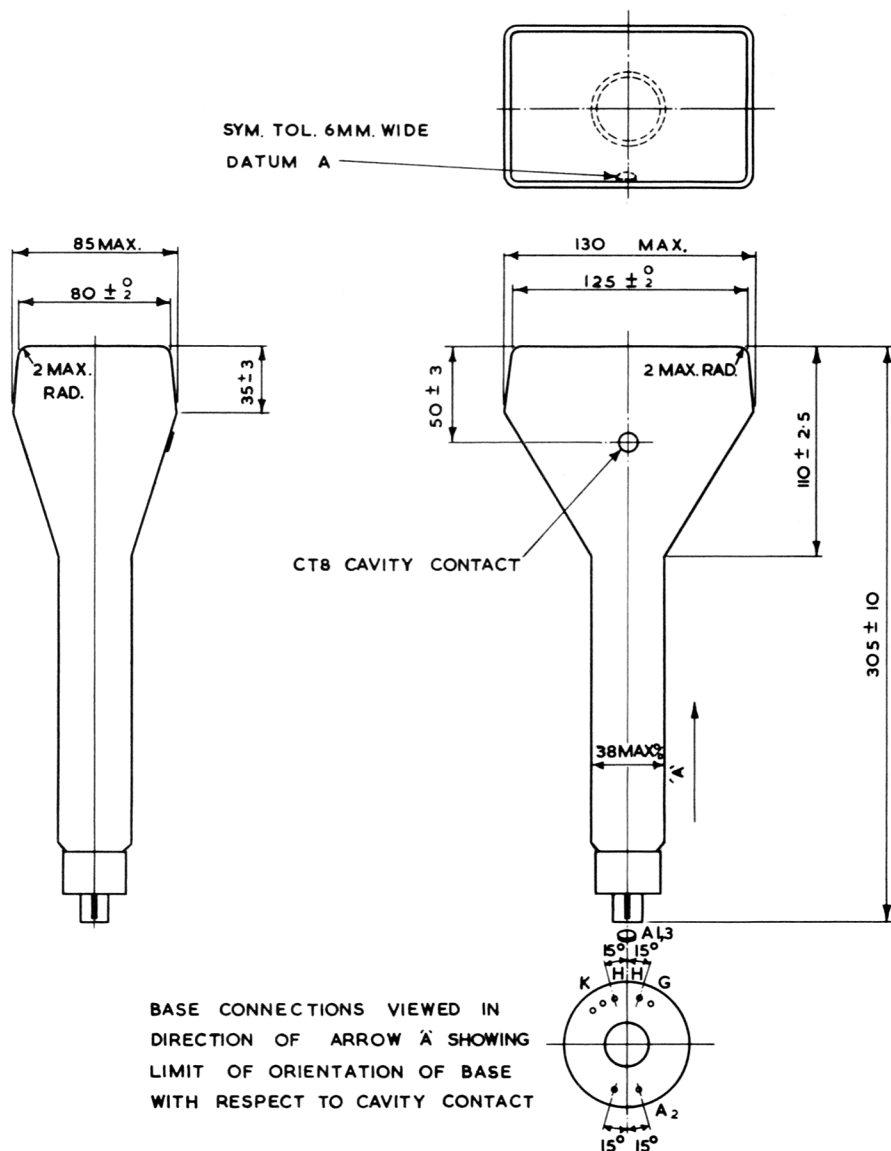
Vh (V) Va 1, Va 3 (kV) Vg (V) Va (V) Vh k (V)
 6.3 8 Adjust Adjust 0

An interlaced 405 line TV raster may be used when required

K1001	Test	TEST CONDITIONS	AQL %	Insp. level	Sym- bol	LIMITS		Units
						Min.	Max.	
5A.1	General Inspection	No voltages		100%				
	Dimensions	No voltages, see drawing on page 4		100%				
5A.2	Loose particles	No voltages		100%				
5A.3.1	Insulation	No voltages		100%				
5A.3.2	Grid Insulation	Vg = -75V		100%	Ig	-	10	μ A
5A.3.3	Heater-cathode leakage current	Vh k = -150V Va 1, Va 3 = 0		100%	Ih k	-	100	μ A
	Heater Current			100%	Ih	0.45	0.55	A
5A.10	Negative grid cut-off voltage V1	Optimum Focus No deflection		100%	Vg	37 record	75 V1	V V
	Grid voltage V2	Ik = 100 μ A Scan applied		100%	Vg	record	V2	V
	Grid Drive	V1 - V2		100%	Vg	15	35	V
5A.7	Focus; line width at four 90° points	Circular Scan diameter = 60 mm (nom) Ik = 10 μ A		100%		-	0.35	mm
	Focus voltage	Optimum focus as for Focus		100%	Va 2	-100	+100	V
5A.8	Light Intensity	Focussed raster area = 48 sq.cm Ik = 10 μ A		100%		5 3.5	-	Foot Lamberts
5A.12	Useful screen area			100%		108 x63	-	mm ²
5A.17	Persistence measured as decay time to 1% brightness	Linear raster of convenient size, uniform screen excitation, Ik = 10 μ A		100%		20 10	30	sec
	Flashover and Spurious Emission	Vg = -100V Va 1, Va 3 = 10 kV Note 1		100%				
5A.2	Screen Blemishes, Stones, Bubbles and Screen Defects	Scan over useful screen area with defocussed raster of convenient brightness.		100%				
	Size 0.25 to 0.6mm							10
	Size 0.6 to 1 mm							5
	Size above 1 mm					None		

NOTE

1. There shall be no visible fluorescence after a pre-heating period of 2 minutes.



DIMENSIONS IN M.M.

ELECTRONIC VALVE SPECIFICATIONS

SPECIFICATION MOS/CV2489

ISSUE 1 DATED 13.1.59.

AMENDMENT NO.1

Page 2 Clause 5A.8 Light Intensity

In Column headed "LIMITS Min."
amend figure from "5" to "3.5"

August, 1959.

N.71102

T.V.C. for R.R.E.

has

ELECTRONIC VALVE SPECIFICATIONS.

Specification CV.2489 Issue 1. Dated 13.1.'59.

Amendment No. 2.

Page 2 Clause 5A.17 Persistance.

Amend minium limit of "20" to read "10"

July, 1962.

N.40602

T.V.C. for R.R.E.

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18/9/62