

VALVE ELECTRONIC CV2489

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

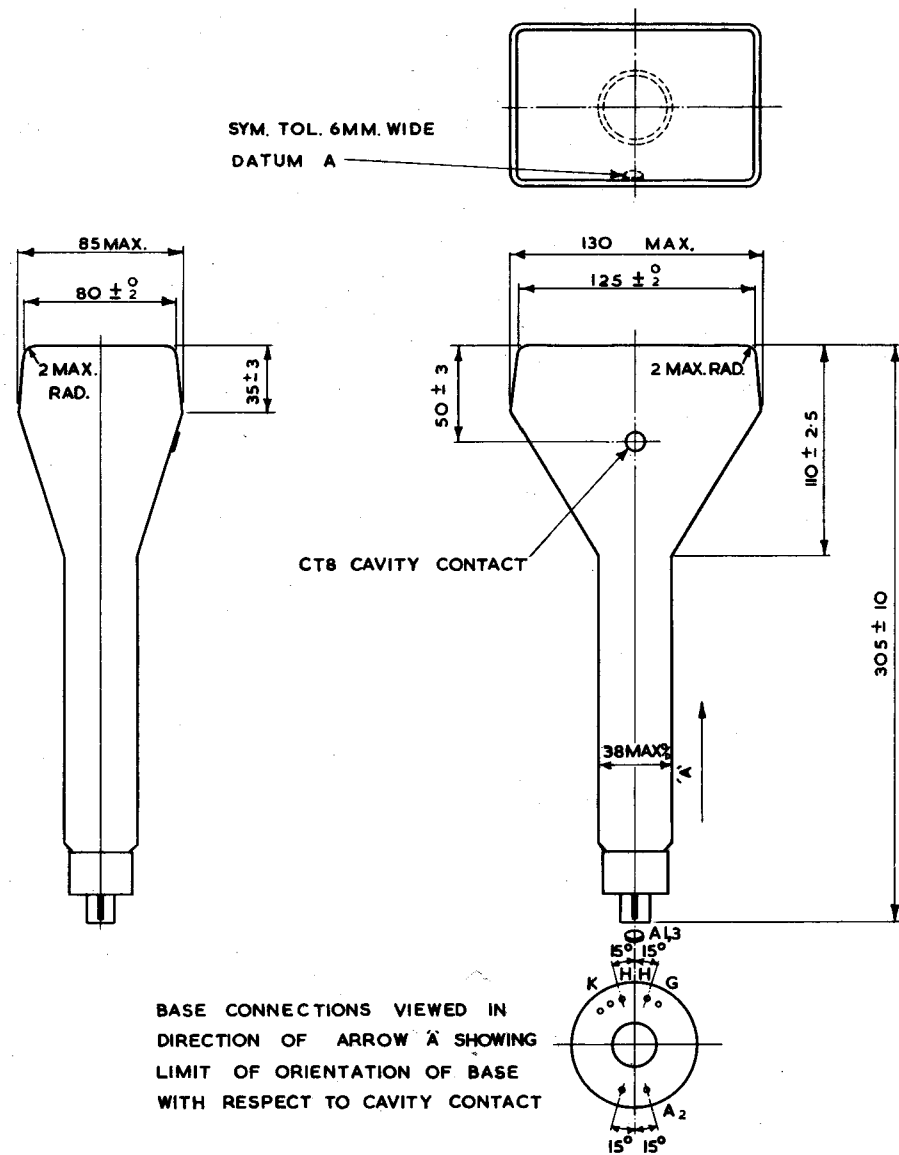
— indicates a change

TYPE OF VALVE - Cathode Ray Tube DEFLECTION - Magnetic FOCUS - Electrostatic BULB - Glass with internal conductive coating SCREEN - GY/8 PROTOTYPE - M5RM - 321	<u>MARKING</u>  See K1001/4																																	
	<u>BASE</u>  BS448/B12A																																	
<u>RATINGS</u>  All limiting values are absolute	<u>CONNECTIONS</u>																																	
	<table border="1"> <thead> <tr> <th>Pin</th> <th>Electrode</th> </tr> </thead> <tbody> <tr><td>1</td><td>Heater</td></tr> <tr><td>2</td><td>Grid</td></tr> <tr><td>3</td><td>-</td></tr> <tr><td>4</td><td>-</td></tr> <tr><td>5</td><td>-</td></tr> <tr><td>6</td><td>Anode 2</td></tr> <tr><td>7</td><td>-</td></tr> <tr><td>8</td><td>-</td></tr> <tr><td>9</td><td>-</td></tr> <tr><td>10</td><td>-</td></tr> <tr><td>11</td><td>Cathode</td></tr> <tr><td>12</td><td>Heater</td></tr> <tr><td>SC</td><td>Anode 1, Anode 3</td></tr> </tbody> </table>	Pin	Electrode	1	Heater	2	Grid	3	-	4	-	5	-	6	Anode 2	7	-	8	-	9	-	10	-	11	Cathode	12	Heater	SC	Anode 1, Anode 3					
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<u>CAPACITANCES</u>	<u>DIMENSIONS</u>																																	
Cg-all (nom) (pf) 9.5 Ck-all (nom) (pf) 6.5	See drawing on page 4																																	
<u>NOTES</u>  A. Absolute Maximum Value																																		

General Test Conditions								
Vh (V)		Va 1, Va 3 (kV)		Vg (V)		Va (V)		
6.3		8		Adjust		Adjust		
				Vh k (V)		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 Dimensions	No voltages No voltages, see drawing on page 4		100% 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	$\mu$ A
5A.3.3	Heater-cathode leakage current	Vh k = -150V Va 1, Va 3 = 0		100%	Ih k	-	100	$\mu$ 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	75	V
	Grid voltage V2	Ik = 100 $\mu$ A Scan applied		100%	Vg	record	V1	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 $\mu$ A Optimum focus		100%		-	0.35	mm
	Focus voltage	as for Focus		100%	Va 2	-100	+100	V
5A.8	Light Intensity	Focussed raster area = 48 sq.cm Ik = 10 $\mu$ A		100%		3.5	-	Foot Lamberts
5A.12	Useful screen area			100%		108 x63	-	mm <sup>2</sup>
5A.17	Persistence measured as decay time to 1% brightness	Linear raster of convenient size, uniform screen excitation, Ik = 10 $\mu$ A		100%		10-20	30	sec
	Flashover and Spurious Emission	Vg = -100V Va 1, Va 3 = 10 kV Note 1		100%				
5A.2	Screen Elemenishes, 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.

CV2489/1/4