Ministry of Aviation
D.L.R.D./S.R.D.E.

VALVE ELECTRONIC

CV 6155

Specification MOA/CV6155 Issue 1 dated July 22nd 1965 To be read in conjunction with K.1001, B.S. 448 and B.S. 1409.	SECURITY	
	Specification	Valve
	Unclassified	Unclassified

TYPE OF VALVE: H.F. Beam Tetrode (Sharp Cut-off)

CATHODE: Directly heated

ENVELOPE: Glass Metallised

PROTOTYPE: CV 2254

MARKING

See K.1001/4, except that the valve shall only be marked with the CV number, Factory Code and Date Code.

RATINGS

All limiting values are absolute.

		Note
Filament Voltage (V)	1.25	
Filament Current (mA)	50	
Max. Anode Voltage (V)	100	
Max. Screen Voltage (V)	75	
Anode Current (mA)	1.8	A
Screen Current (mA)	0.5	A
Mutual Conductance (mA/V)	1.1	A
Anode Impedance (MΩ)	1.0	

BASE

See BS 448 B5G/F.

CONNECTIONS

PIN	ELECTRODE
1	a (Red dot)
2	g_2
3	f-ve, bp_1, M
4	g_1
5	f+ve, bp_2

CAPACITANCES (pF)

Cag (max.)	0.01
C in	4.0
C out	4.6

DIMENSIONS

See BS 448 B5G/F
Size ref. No. 1

MOUNTING POSITION

ANY

NOTES: A. Measured at Va = Vg_2 = 67.5, Vg_1 = 0
B. N.A.T.O. Stock Number, 5960-99-037-4274

TESTS

To be performed in addition to those applicable in K.1001.

Test conditions unless otherwise specified:

Vf	Va	Vg_2	Vg_1	Rg_1 (M Ω)
1.25	67.5	67.5	0	5

K.1001	Test	Test Conditions	AQL	Insp. Level	Symbol	Limits Min.	Limits Max.	Units
	GROUP A							
	Reverse Grid Current	Vg_1 = -0.5, Rg_1 = 0.1 MΩ(max)		100%	Ig_1	-	0.5	μA
	Contact Potential	Va = Vg_2 = 0, Rg_1 = 200 KΩ		100%	$+Ig_1$	0.2	-	μA
	Electrode Insulation	Vf = 0						
		Vg_1 = All = -100V		100%	R	100	-	MΩ
		Vg_2 = All = -100V		100%	R	100	-	MΩ
		Va = All = -100V		100%	R	100	-	MΩ
	GROUP B	Combined AQL	1.0					
	Filament Current		0.65	II	If	44	56	mA
	Anode Current		0.65	II	Ia	1.2	2.4	mA
	Screen Grid Current		0.65	II	Ig_2	0.35	0.7	mA
	Mutual Conductance (1)		0.65	II	gm	0.75	1.45	mA/V
	GROUP C	Combined AQL	4.0					
	Mutual Conductance (2)	Vf = 1.0 V	2.5	I	gm	0.6	1.45	mA/V
	Mutual Conductance (3)	Vf = 1.0 V. Take reading after 15 minutes.	2.5	I	gm	0.6	1.45	mA/V
	GROUP D							
5.12	Lead Fragility		6.5	IA				
	Filament-Anode Short	Note 1		Q.A.				
	Capacitances	Measured on a 1 Mc/s bridge with the valve mounted in a fully screened socket. No shield.	6.5	I.C.	Cag	-	0.01	pF
					C in	3.0	4.75	pF
					C out	3.7	5.5	pF

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TESTS (Cont'd.)

K.1001	Test	Test Conditions	AQL	Insp. Level	Symbol	Limits Min.	Limits Max.	Units
	GROUP F							
	LIFE			IA				
	Life Test End Point (500 hours)							
	Mutual Conductance (1)		6.5		gm	0.55	-	mA/V

NOTES

1. Raise Vf until filament opens. Test for filament to anode 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 valve shall be deemed a failure. This test shall be performed by a Service laboratory on three valves which shall be in addition to the required number for Type Approval samples. Manufacturer's data are not required for this test.