

MINISTRY OF SUPPLY (D.C.D.)

Specification M.A.P./CV.668
Issue 1 Dated 13.10.50.
To be read in conjunction with K1001

SECURITY
Specification Valve
UNCLASSIFIED UNCLASSIFIED

—————> Indicates a change

TYPE OF VALVE - Transmitting Triode		<u>MARKING</u> See K1001/4	
CATHODE - Directly Heated Thoriated Tungsten		<u>BASE</u> USM4B	
ENVELOPE - Glass, Unmetallised		<u>CONNECTIONS</u>	
PROTOTYPE - 35T			
<u>RATING</u>		<u>Note</u>	
Filament Voltage (V)	5.0	Pin	Electrode
Filament Current (A)	3.8		
Max. Anode Voltage (kV)	2.0		
Max. Anode Dissipation (W)	35		
Max. Grid Current (mA)	35		
Amplification Factor	39		
Max. Frequency for above ratings Mo/s	100		
<u>CAPACITANCES (pF)</u>		<u>CONNECTIONS</u>	
Cga (nom)	1.65	See K1001/A1/D1	
Cge (nom)	2.60	Dimension	Min. Max.
Cae (nom)	.225	A	5.250" 5.500"
		B	- 1.813"
		<u>TOP CONNECTOR</u>	
		Dimension	Min. Max.
		Length	.312" -
		Diameter	.065" .071"

Tests

To be performed in addition to those applicable in K1001

Test Conditions					Test	Limits		No. Tested	Note			
						Min.	Max.					
See K1001/A111 Measurements to be made in Adapter Type					CAPACITANCE (pF)			6	per week			
Links to H.P.	Links to L.P.	Links to E										
3	TC1	1,2,4,5,6,7,8,9,10,TC2.								Gga	1.4	2.2
3	1,4	2,5,6,7,8,9,10,TC1,TC2.								Gge	3.0	5.0
TC1	1,4	2,3,5,6,7,8,9,10,TC2.			Gae	0.08	0.23					
b	Vf (V)	Va (kv)	Vg (V)	Ia (mA)	If (A)	3.6	4.2	100% or S				
	5.0	0	0	0								
c	5.0	1.0	Adjust	35	Vg1 (V)	-6.0	-11.5	100%				
d	5.0	1.0	Adjust	35	Reverse Ig (μ A)	-	15	100%				
e	5.0	1.0	Adjust	35	μ	35	43	100% or S				
f	5.0	See Note 1			Peak Emission (A)	2.0	-	100%	1			
g	5.0	See Note 2			Power Oscillation (W)	45	-	T.A.	2			

NOTES

- The test is performed with Anode and Grid strapped. Peak applied voltage 2.5 kV; $T_p = 2 \mu$ Secs. PRF = 50 per sec. The pulse shape is half sine wave.
- The valve shall be tested in an oscillatory circuit at a frequency of 8.0 Mc/s under the following conditions:- $V_a = 1000$ V. DC.; $I_a = 80$ mA DC.; $R_g = 2500 \Omega$; $I_g = 20$ mA DC.