

Specification MAP/CV178/Issue 3

Dated 11.1.46.

To be read in conjunction with K.1001,
ignoring clauses:- 5.2, 5.8, 7.2.SECURITYSpecificationValve~~Unclass~~~~Unclass~~

— Indicates a change

TYPE OF VALVE - Triode oscillator
CATHODE - Indirectly heated.
ENVELOPE - Metal-glass
PROTOTYPE - E.1458.

MARKING

See K1001/4

RATING

Note

Heater Voltage (V)	6.3-7.0	A
Heater Current (A)	2.7	
Max. Continuous Anode Dissipation (W)	50	B, C
Max. Anode Dissipation for short periods (W)	150	B, D
Max. H.T. Voltage under Pulse Modulation Conditions (kV)	4.75	
Max. Continuous Anode Voltage (V)	750	
Amplification Factor	26	
Min. Operating Wavelength (cms)		
(a) Pulse Applications	25	
(b) C.W. Applications	50	
Continuous C.W. Output Power (W/pair)	15	E

BASE

None

DIMENSIONS AND CONNECTIONS

See drawing on page 3.

CAPACITANCES (pF)

C _{ag}	4.5
C _{gc}	4.5
C _{ac}	2.0

NOTES

- A:- The heater volts should be operated as little above 6.3V. as possible.
 B:- The temperature of the anode and grid seals must be kept below 140°C.
 C:- Forced air cooling is necessary, a flow of 4 cu.ft/min. being recommended. The pressure drop is of the order of 1.5" of water.
 D:- An air flow of 15-20 cu.ft/min. with a pressure drop of 3"-4" of water is necessary.
 E:- Under conditions of sustained oscillation with H-T voltage of 500V.

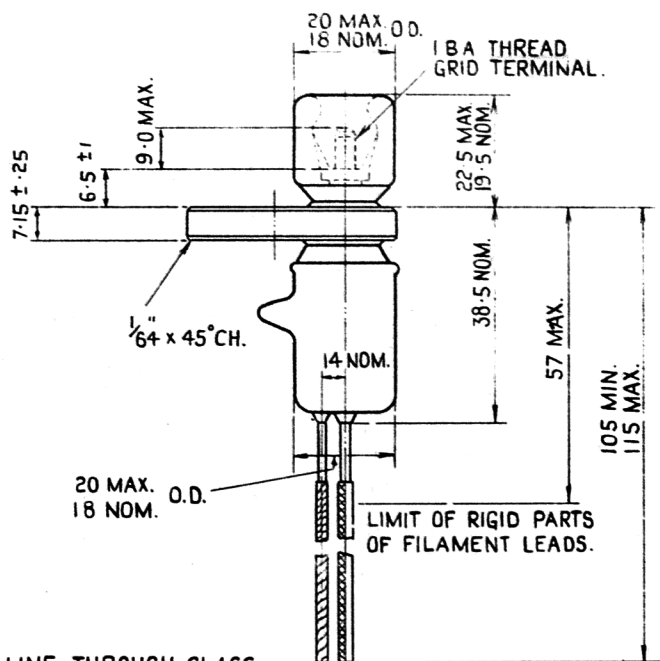
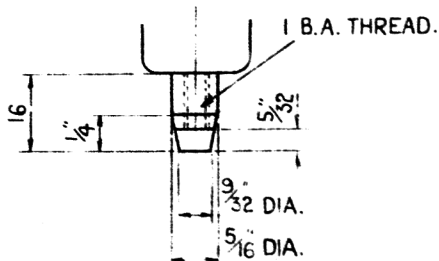
To be performed in addition to those applicable in K1001

	Test Conditions					Limits		No. Tested	Note
	Vh	Vg	Va	Ia(mA)		Min.	Max.		
a	7.0	0	0	0	Ih (A)	2.4	3.0	100%	
b	7.0	-	700	70	Vg (V)	-8	-23	100%	
c	7.0	-	700	70	Reverse Ig (μ A) 1. Gas 2. Grid emission and/or leak	-	10 100	100% 100%	1
d	7.0	-	1000	70	Vg change from test (b) (V)	7	17	100%	
e	7.0	1000	1000	-	Peak Ic (A)	10	-	100%	2
f	See K1001/AIII				CAPACITANCES (pF) 1. Cag 2. Cgc 3. Cac	3.0 3.0 0.5	6.0 6.0 3.5	T.A.	

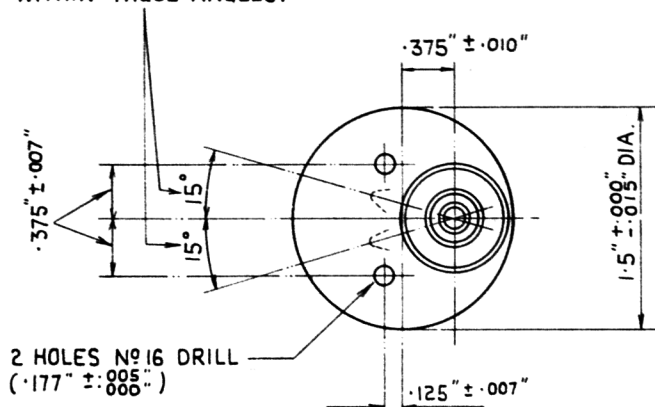
NOTES

- 1:- Grid current (gas) is measured as the immediate decrease in the reverse grid current when the negative grid voltage is rapidly increased to cut off anode current. Should the pressure of unsaturated grid emission make this measurement in test (c.1.) impossible the test may be considered to be fulfilled if no trace of gas is evident in test(e).
- 2:- Emission current measured under pulse conditions, with pulse length = 2 μ secs., P.R.F. = 50 /sec., and pulse shape sinusoidal.

MAXIMUM OUTSIDE DIMENSIONS
OF GRID CONNECTION.
VALVE TO TAKE AN APPROVED
JIG COMPRISING THIS GRID
CONNECTION AND A SEATING
BLOCK FOR THE ANODE.



CENTRE LINE THROUGH GLASS
PIP & HEATER LEADS TO LIE
WITHIN THESE ANGLES.



ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED