VALVE ELECTRONIC CV 2224

MINISTRY OF SUPPLY (S.R.D.E.)

120.5	*									
	Specification MOS/CV2224/Issue 4					SECURITY				
f . •	Dated: - 26.3.53.	-				Specification		Valve		
	To be read in conju		Uncl	assifie	d Unc	lass ified				
	Company in the contract of the	ange	ange							
	TYPE OF VALVE: - Hi	MARKING								
	CATHODE: - Co	See K1001/4								
	ENVELOPE: - Glass, unmetallised									
	PROTOTYPE: - G1									
	INCIONIA.									
	RA	TING	BASE							
	MAIN ELECTRODE		Note	B7G-						
	Max. Pulse Current	15		Pin Electrode						
	Max. D.C. Current 0		10							
	Min. D.C. Current 0	utput (mA)	2		1	•	ig Gap Ca	athode		
\rightarrow	Anode Supply Voltag	e (V)	270 to	1	2	Cathod Shield	-			
	Mada Gan Madahadada	_ (11)	360	A	3 4	Anode	ı			
→	Main Gap Maintainin Voltage	g (V)	175 to	^	5	Shield				
	Max. Cathode Voltage	e (V)	140		5 6	Trigge				
	Cutput	• •			7	Primir	ig Gap Ai	node		
	Shield Voltage	(v)	150	В		L				
ł	Trigger Bias (Va up	to	0 to		<u>DIMENSIONS</u> See K1001/A1/DA			1		
	325 V.) Trigger Bias (Va up	(V)	165 60 to					D4.		
	360V.)	(v)	165		Dime	nsions	Min.	Max.		
ļ	Trigger Breakdown Potential (V)		12 to 26	С						
					A mm.			54 40 4		
	De-ionisation Time		30	D	B mm. F mm. L mm.		35•7	19.1 40.5		
	Transfer Time Trigger Pulse Width	(nom.) (µS)	0.5 See Note	E			ו •עע	47.6		
-	PRIMING GAP		see not	F		ــــــــــــــــــــــــــــــــــــــ				
	Priming Gap Current	(mA)	0.2 to G		CAPACITANCES (pF)					
I	TITMENT GOLD OUTLONG	(11.12)	0.5	1 17	Tri	3.0				
- 1	Anode Feed Resistan		3 90		Tri	her				
ł	Cathode Resistance				е	lectrod	les 5.0			
1	Main Gap Cathode		56							
L	Potential	(KΩ)	20	لـــــــا						

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NOTES

- A. To be measured directly between the main gap anode and cathode, with the priming anode left floating.
- B. Applied through 50,000 ohms.
- C. With a 25 micro-second square pulse applied based on maximum bias.
- De-ionisation time should be short enough to permit a reapplication of the nominal working voltage (90 per cent of maximum, i.e. 325 volts) 30 micro-seconds after the extinguishing of a D.C. discharge of maximum rated current by means of a rectangular pulse applied to the anode. The base of the extinguishing pulse should be 20 volts below the Vm of the main gap. All other electrodes may be at potentials within their working range.
- This is the time interval between current flowing in the trigger cathode circuit as the result of applying a trigger pulse, and conduction starting in the main anode-cathode gap.
- -> F. In use, any pulse width greater than 3 micro-seconds can be applied, provided the amplitude is sufficient and the input circuit suitable. The effective triggering pulse amplitude is a function of pulse width below 25 micro-seconds. For pulse widths greater than 25 micro-seconds, the amplitude is approximately constant at the test value.
 - G. The priming gap cathode must not be more than 140 volts negative to the main cathode at any time.

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To be performed in addition to those applicable in K1001

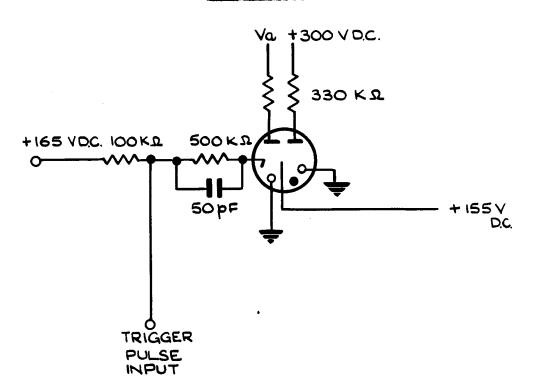
	Test Conditions					Test	Limits		Notes	
		rest con	altions			1626	Min.	Max.	Notes	
	Trigger Voltage	Trigger Series Res. KN	Va	Anode Res. KO	Ia mA					
а	Connect to anode thro' 1 MΩ	•	Record	Adj.	10	Main Gap Maintaining Voltage (V)	172	188	1 & 2	
Ъ	Connected to Cathode	0	Record	100	-	Main Gap Ignition Voltage (V)	320	-	2 & 3	
c	+60 D.C.	22	Record	100	-	Main Gap Ignition Voltage (V)	365	-	2 & 3	
đ	Floating	-	300	3 3	_	Priming Cap Current (mA)	0.22	0.53	2 & 3	
0	Refer to the test circuit shown below. To the trigger connect a 500 KN resistance and in series with this a 100 KN resistance. Connect a 50 pF condenser across the 500 KN. To the free end of the 100 KN resistance connect a +165 volt D.C. bias voltage. To the junction of the two resistances apply a substantially rectangular pulse of +11 volts amplitude and 25 µs width at a P.R.F. of 100 p.p.s.				Main Gap Hold-off	The Gap not down	2 & 3	€		
f	ditions as To the jun tances app rectangula	270 22 - Use the same bias and input conditions as under e. To the junction of the two resistances apply a single substantially rectangular pulse of +27 volts amplitude and 25 μs width.				Main Gap Breakdown			2 & 3	

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NOTES

- 1. The maintaining voltage shall be measured directly between the main gap anode and cathode, with the priming anode left floating.
- 2. For this test the shield shall be maintained at a voltage of +155 volts and the cathodes shall be earthed.
- 3. For this test the priming gap anode shall be connected in series with 330 KC to +300 volts.

TEST CIRCUIT



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