

ELECTRONIC VALVE SPECIFICATIONS

SPECIFICATION CV7018 - 20

ISSUE 1A DATED 15.2.1961

AMENDMENT No. 1

Page 1 NOTES

Amend Note C to read as follows:-

JOINT SERVICE CATALOGUE NUMBER:

CV7018 = 5960-99-037-2024

CV7019 = 5960-99-037-2025

CV7020 = 5960-99-037-2026

Ministry of Aviation/RRE

May, 1962

(40181)

Specification MOA/CV7018 - 20 Issue 1A dated 15.2.61 To be read in conjunction with K1007	<u>SECURITY</u>	
	<u>Specification</u> Unclassified	<u>Valve</u> Unclassified

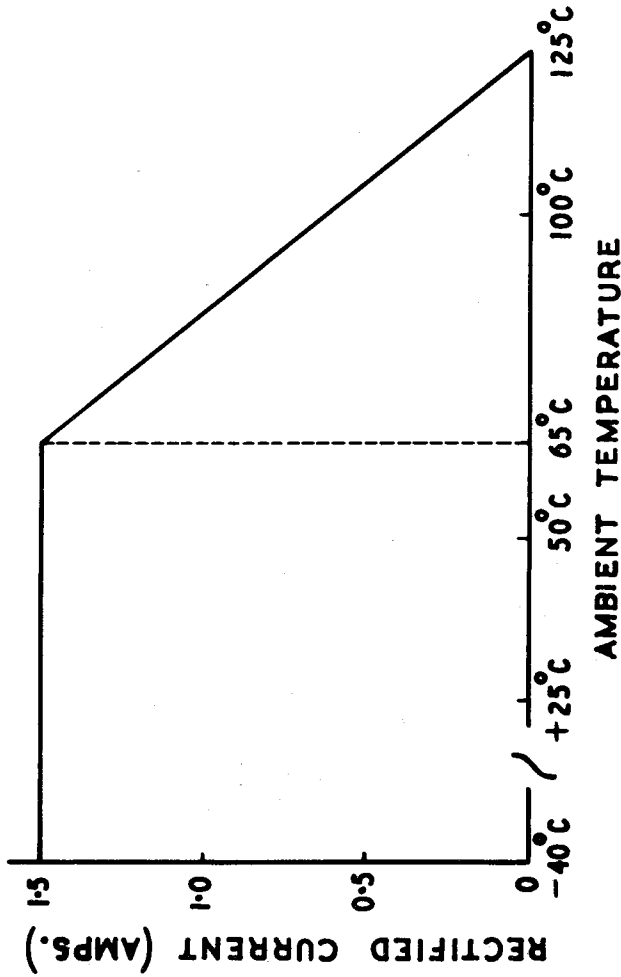
Indicates a change

<u>TYPE OF DEVICE</u> : Silicon Power Rectifier <u>CONSTRUCTION</u> : Metal Body, wire end leads <u>PROTOTYPE</u> : ZR11, ZR12, ZR14	<u>MARKING</u> K1007/4 CV Number Polarity marking
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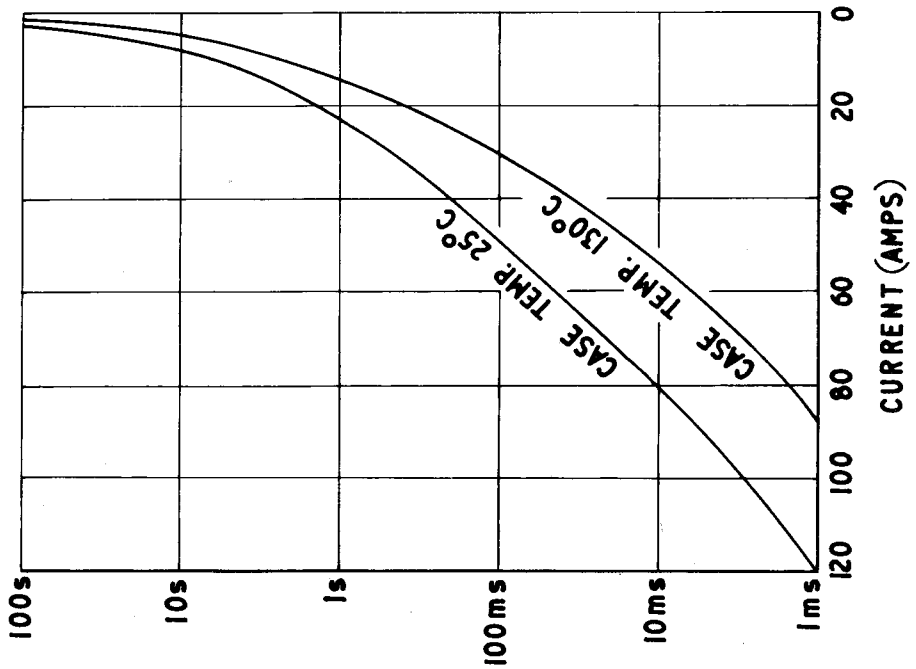
<u>RATING</u>	Note		<u>DIMENSIONS</u> See K1007/AI/D10
All limiting values are absolute			
Max. Peak Inverse Voltage - 40°C to + 125°C	CV7018 (V) CV7019 (V) CV7020 (V)	100 200 400	<u>MOUNTING POSITION</u> Any
Max. Mean Rectified Forward Current @ 25°C @ 100°C	(A) (A)	1.5 0.6	<u>PACKAGING</u> See K1007/14
Max. Reverse Current at Max. P.I.V. @ 25°C @ 100°C	(µA) (µA)	20 200	
Max. Surge Current at 25°C			B
Max. Continuous Vibration	(g)	10	
Max. Shock	(g)	500	

NOTES

- A. See derating curve on Page 2.
- B. See surge rating curve on Page 3.
- C. JOINT SERVICE CATALOGUE NUMBER :
 CV7018-5960-99-037-2024
 CV7019-5960-99-037-2025
 CV7020-5960-99-037-2025



SURGE RATING
MAX DC. SURGE CURRENT



<u>TESTS</u>								
To be performed in addition to those applicable in K1007								
K1007 Ref.	Test	Test Conditions	AQL %	Insp. Level	Sym- bol	LIMITS		Units
						Min	Max	
5C.4	<u>GROUP A</u> Forward Voltage Drop	$I_f = 1.5A$ $T_{amb} = 15 - 30^{\circ}C$		100%	V _f	-	1.0	V
5C.2	Reverse Current (1)	$T_{amb} = 15 - 30^{\circ}C$ CV7018 $V_r = 100V$ CV7019 $V_r = 200V$ CV7020 $V_r = 400V$		100%	I _r	-	20	uA
						-	20	uA
						-	20	uA
<u>GROUP B omitted</u>								
5C.2	<u>GROUP C</u> Reverse Current (2)	$T_{amb} = 100^{\circ}C$ min. CV7018 $V_r = 100V$ CV7019 $V_r = 200V$ CV7020 $V_r = 400V$	2.5	I	I _r	-	200	uA
						-	200	uA
						-	200	uA
<u>GROUP D omitted</u>								

<u>TESTS (Cont'd)</u>								
K1007 Ref.	Test	Test Conditions	AQL %	Insp. Level	Sym- bol	LIMITS		Units
						Min.	Max.	
11.5	<u>GROUP E</u> Soldering			IC				
10.1	Lead Fragility			IC				
10.2	Temperature cycling	Three cycles - 40°C to + 100°C		IC				
10.3	Climatic			IC				
11.3	Fatigue			IC				
11.4	Shock	Hammer Angle = 60°		TA				
8	<u>Post Temperature Cycling Climatic Fatigue & Shock Tests</u>		10					
5C.4	Inoperatives		6.5					
5C.2	Forward Voltage Drop	As in Group A	6.5		V _F	-	1.0	V
	Reverse current (2)	As in Group C	6.5		I _r	-	200	uA
13	<u>GROUP F</u> Life	Max. P.I.V. T _{amb} = 25°C ± 5°C I _f = 1.5A Half wave circuit with resistive load f = 50 c/s		IA				

TESTS (Cont'd)								
K1007 Ref.	Test	Test Conditions	AQL %	Insp. Level	Sym- bol	LIMITS		Units
						Min.	Max.	
13-4	<u>GROUP F (Cont'd)</u> Storage Life (1)	T _{amb} = - 55°C t = 150 hours		I				
13-5	Storage Life (2)	T _{amb} = + 100°C t = 150 hours Combined AQL	6.5	I				
8	<u>Life Test End Point - 100 hours and Post Storage Life Tests 1 and 2</u> Inoperatives		4.0					
5C-4	Forward Voltage Drop	As in Group A	4.0		Vf	-	1.0	V
5C-2	Reverse Current (2)	As in Group C.	4.0		Ir	-	300	uA
8	<u>GROUP G</u> Retest after 28 days holding period			100%				
5C-4	Inoperatives Forward Voltage Drop	As in Group A	0.5		Vf	-	1.0	V
5C-2	Reverse Current (1)	As in Group A	1.0		Ir	-	20	uA