

ELECTRONIC VALVE SPECIFICATIONS

SPECIFICATION CV. 7026-30

ISSUE NO. 1 DATED 25.6.1959

AMENDMENT NO. 1

Page 1. DIMENSIONS Delete "see drawing on page 4".
Insert "K1007/A1/D10".

Page 4 Delete drawing at the bottom of
this page.

Ministry of Aviation/RRE

March 1962
(10938)

MINISTRY OF SUPPLY - DLRD/RRE

VALVE ELECTRONIC
SEMICONDUCTOR DEVICE

CV7026
-CV7030

Specification MOS/CV7026/27/28/29/30 Issue 1, dated 25th June, 1959. To be read in conjunction with K1007	<u>SECURITY</u>	
	<u>Specification</u>	<u>Device</u>
	UNCLASSIFIED	UNCLASSIFIED

Indicates a change ←

TYPE OF DEVICE - Silicon Power Rectifier CONSTRUCTION - Metal body, wire end leads PROTOTYPE -	<u>MARKING</u>
	CV Number Polarity Markings and if practicable Factory Code & Date Code
) See K1007/4

<u>RATINGS AND CHARACTERISTICS</u>	<u>DIMENSIONS</u>
<u>All limiting values are absolute</u>	See drawings on page 4

Max. Peak Inverse Voltage, -40°C to +125°C;	CV7026 CV7027 CV7028 CV7029 CV7030	(V) (V) (V) (V) (V)	100 200 400 600 800	Note C C C C C	<u>MOUNTING POSITION</u>
					Any
Max. Mean Rectified Forward Current.					<u>PACKAGING</u>
at 25°C at 100°C		(A) (A)	0.75 0.5	A A	See K1007 Section 14
Max. Reverse Current at max. P.I.V. at 25°C at 100°C		(uA) (uA)	20 300		
Max. Surge Current at 25°C Max. Continuous Vibration Max. Shock		(A) (g) (g)	15 10 500	B	

NOTES

- A. See derating curves on page 2.
- B. Applies to all transients and is a maximum peak current where t_w is not greater than 10 mSecs.
- C. This rating applies to all waveforms including very short transients.

Joint Services Catalogue Nos. for CV7026, 5960 - 99 - 037 - 2045
 for CV7027, 5960 - 99 - 037 - 2046
 for CV7028, 5960 - 99 - 037 - 2047
 for CV7029, 5960 - 99 - 037 - 2048
 for CV7030, 5960 - 99 - 037 - 2049

CV7026-30

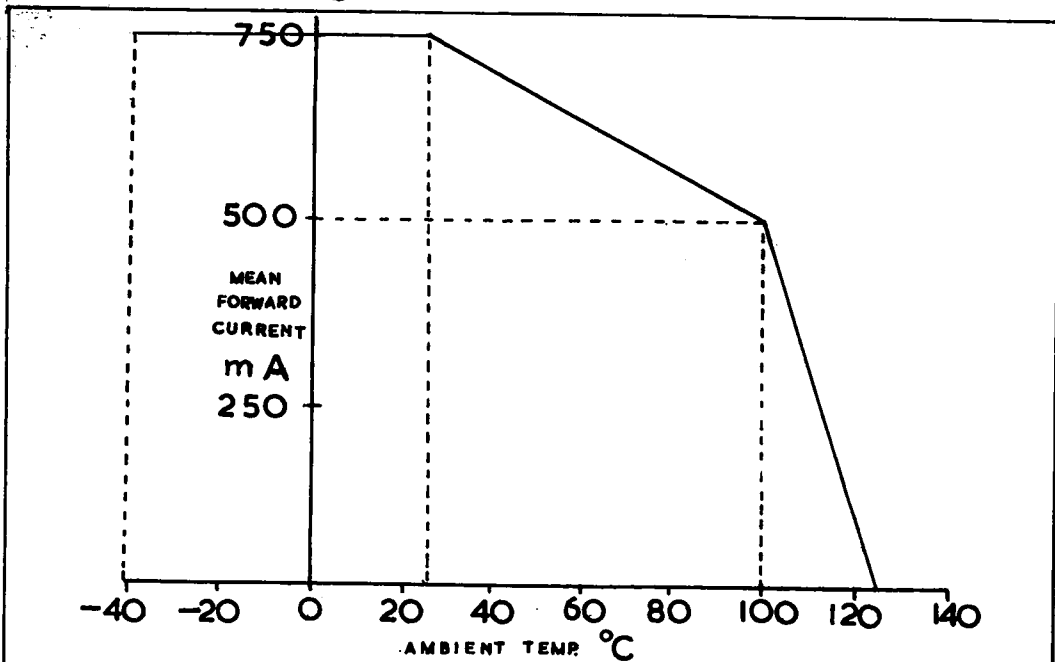


FIG. 1. DERATING CURVE

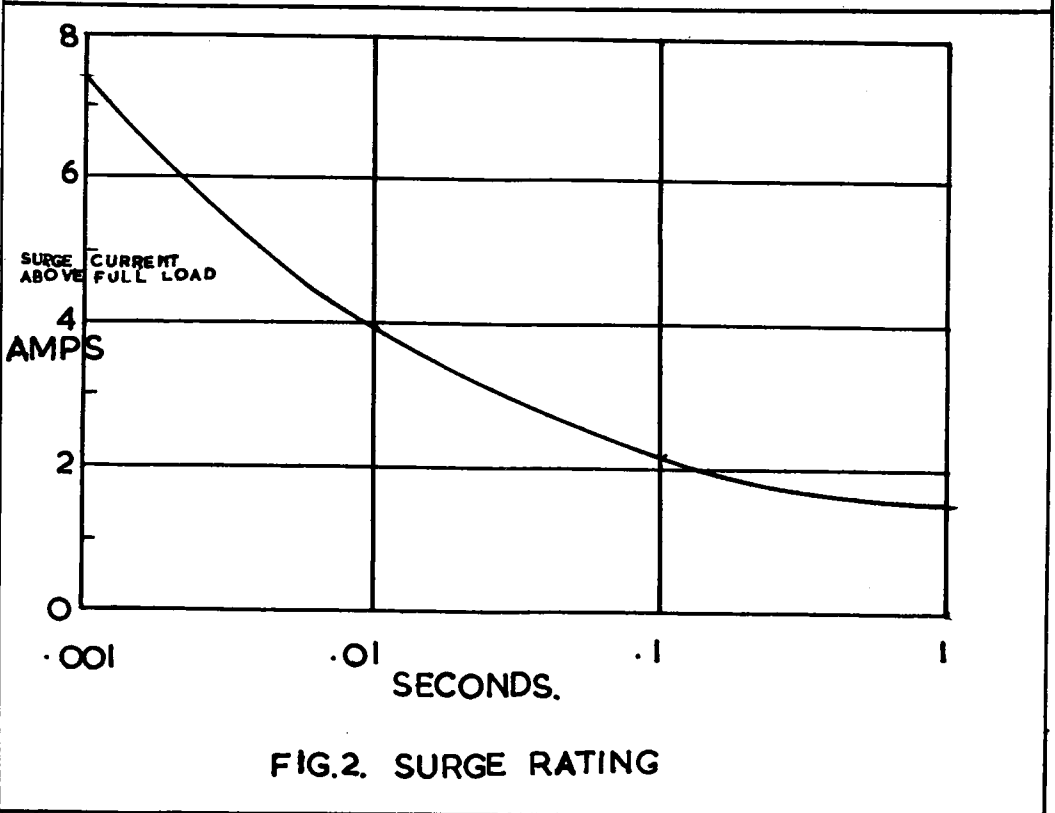


FIG. 2. SURGE RATING

CV7026-30

TESTS

To be performed in addition to those in K1007 Sections 5.2 & 5.3

K1007	TEST	TEST CONDITIONS	AQL %	Insp. level	Sym- bol	LIMITS		UNITS
						Min.	Max.	
5C.4	<u>GROUP A</u> Forward Voltage Drop	If = 0.75A d.c. Tamb = 15°C-30°C		100%	Vf	-	1.0	V
5C.2	Reverse Current (1)	Tamb = 15°C-30°C CV7026 Vr = 100V CV7027 Vr = 200V CV7028 Vr = 400V CV7029 Vr = 600V CV7030 Vr = 800V		100%	Ir	-	20	uA
	<u>GROUP B</u>	Omitted						
5C.2	<u>GROUP C</u> Reverse Current (2)	Tamb = 100°C min. CV7026 Vr = 100V CV7027 Vr = 200V CV7028 Vr = 400V CV7029 Vr = 600V CV7030 Vr = 800V	2.5	I	Ir	-	300	uA
	<u>GROUP D</u>	Omitted						
11.5 10.1 10.2 10.3 11.3 11.4	<u>GROUP E</u> Soldering Lead fragility Temperature cycling Climatic Fatigue Shock	Three cycles -40°C to +100°C Hammer angle = 60°			IC IC IC IC IC TA			
8	<u>Post Temperature Cycling, Climatic, Fatigue and Shock Tests</u> Inoperatives			4.0				
5C.4	Forward Voltage Drop	If = .75A d.c. Tamb = 15°C-30°C		4.0	Vf	-	1.1	V
5C.2	Reverse Current (2)	Tamb = 100°C min. CV7026 Vr = 100V CV7027 Vr = 200V CV7028 Vr = 400V CV7029 Vr = 600V CV7030 Vr = 800V		4.0	Ir	-	500	uA
						-	500	uA
						-	500	uA
						-	500	uA
						-	500	uA

CV7026/1/3
to CV7030/1/3 inclusive

CV7026-30

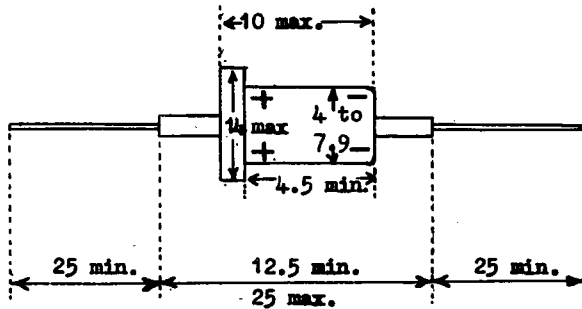
TESTS (Continued)

K1007	TEST	TEST CONDITIONS	AQL %	Insp. Level	Sym- bol	LIMITS		UNITS
						Min.	Max.	
13.3	<u>GROUP F</u> LIFE	Note 1.		IA				
13.4	Storage Life (1)	Tamb = -40°C t = 150 hrs.		I				
13.5	Storage Life (2)	Tamb = 125°C t = 150 hrs.		I				
	<u>Life Test End- point - 1000 hrs. and Post Storage life tests (1) & (2)</u>	Combined AQL for each group of tests	6.5					
5C.4	Forward Voltage Drop	If = 0.75A d.c. Tamb = 15°C-30°C	4.0		Vf	- 1.1		V
5C.2	Reverse Current (2)	Tamb = 100°C min. CV7026, Vr = 100V CV7027, Vr = 200V CV7028, Vr = 400V CV7029, Vr = 600V CV7030, Vr = 800V	4.0		Ir	- 500 - 500 - 500 - 500 - 500		uA uA uA uA uA
	<u>GROUP G</u> Re-test after 28 days holding period			100%				
8	Inoperatives	No voltages as in Group A	0.5					
5C.4	Forward Voltage	as in Group A	1.0		Vf	- 1.0		V
5C.2	Reverse Current (1)	as in Group A	1.0		Ir	- 20		uA

NOTES

- The device shall be tested in a half wave circuit, $f = 50$ c/s, with a resistive load at an ambient temperature not greater than 105°C and not less than 25°C. The value of I_f shall be not less than the value corresponding to the chosen ambient temperature according to the derating curve, fig.1 on page 2.

DIMENSIONAL DRAWING



Lead wires
26 SWG min.
18 SWG max.

CV7026/1/4 to
CV7030/1/4 inclusive