

ELECTRONIC VALVE SPECIFICATIONS

SPECIFICATION MOS/CV448

ISSUE 5 dated 17th August, 1959

AMENDMENT NO.1

Page 2

Fig.2 Dimensional Outline Drawing

Amend legend "25 SWG. tinned or silver plated"
to read "23-25 SWG tinned or silver plated"

R.R.E.

February, 1960
N.16334D

MINISTRY OF SUPPLY - DLRD/RRE

VALVE ELECTRONIC
SEMICONDUCTOR DEVICE

CV448

Specification MOS/CV448 Issue 5 dated 17th August 1959 To be used in conjunction with K1007 ←	<u>SECURITY</u>	
	<u>Specification</u> Unclassified	<u>Valve</u> Unclassified

← indicates a change

TYPE OF DEVICE - Germanium rectifier Diode CONSTRUCTION - Glass Body, wire end leads PROTOTYPE - VX3069, VX4066	<u>MARKING</u> See K1007/4 CV Number Polarity markings Manufacturer's Code	
<u>RATINGS AND CHARACTERISTICS</u> All limiting values are absolute:		
	Note	
Max. Peak Inverse Voltage (v) 100 Max. DC Reverse Voltage (v) 75 Max. DC Forward Current (mA) 25 Max. Slope Resistance at + 1V (ohms) 900 Min. Slope Resistance at -10V (M) 0.5 Max. Storage Temperature (°C) 100 Min. Storage Temperature (°C) -40 Max. Operating Frequency (Mcs) 10 Max. Continuous Vibration (g) 10 Max. Shock (g) 500	A A A B	<u>DIMENSIONS</u> See drawing on page 2
		<u>MOUNTING POSITION</u> Any
		<u>PACKAGING</u> See K1007, Section 14. The date code shall appear on multiple packs of 100 or more.
<u>CAPACITANCES (pF)</u>		
C ak (max)	1.0	
C ac (max)	2.5	
C kc (max)	2.5	
<u>NOTES</u>		
A. The ratings apply for an ambient of 25°C, see derating curve on page 2 for ratings at other temperature.		
B. This rating is not an absolute value. No damage will be caused if the diode is operated at frequencies in excess of 10 Mcs but the efficiency may fall seriously above 10 Mcs.		

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FIG. 1. DERATING CURVES

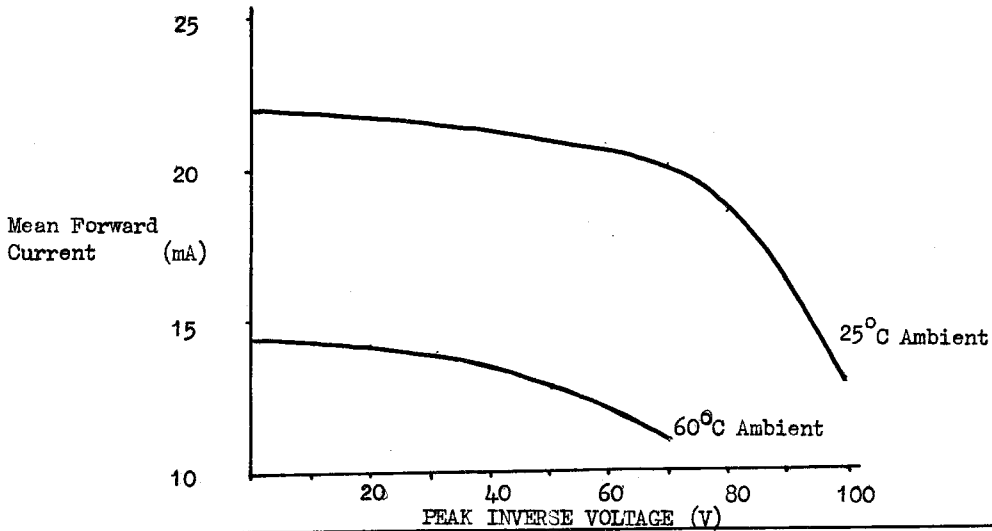
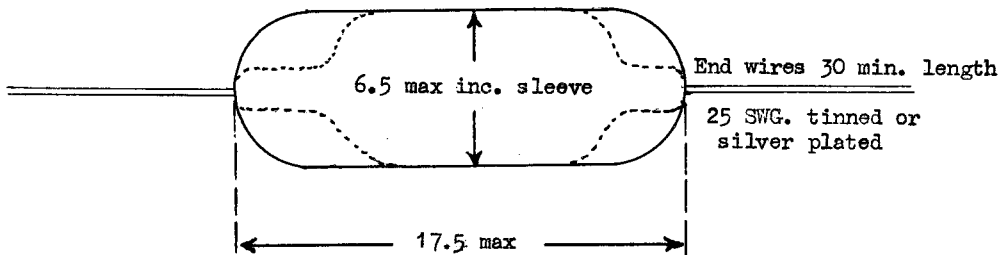


FIG. 2. DIMENSIONAL OUTLINE DRAWING
(Max. Space)



All dimensions in millimetres

To be performed in addition to those applicable in K1007 Sections 5.2 and 5.3

K1007	TEST	TEST CONDITIONS	AQL %	INSP. LEVEL	SYM- BOL	LIMITS		UNITS
						Min.	Max	
	<u>GROUP A</u>							
5B.4	Forward Voltage	$I_f = 3\text{mA dc}$		100%	V _f	-	1.0	V
5B.2	Reverse Current (1)	$V_r = 50\text{V}$		100%	I _r	-	100	μA
	<u>GROUP B</u>							
	Peak Inverse Voltage	Approved CRT Display	0.65	II	V _{piv}	100	-	V
	or alternatively Peak Reverse Current	$V_{rp} = 100\text{V}$	0.65	II	I _{rp}	-	500	μA
	Reverse Voltage	$I_r = 200 \mu\text{A}$	0.65	II	V _r	75	-	V
	<u>GROUP C omitted</u>							
	<u>GROUP D</u>							
5B.2	Reverse Current (2)	$V_r = 10\text{V}$ $T_{amb} = 60^\circ\text{C min}$	2.5	IA	I _r	-	50	μA
5B.5.1	Capacitance	$F = 4.5 \text{ Mcs} \pm 5 \text{ Mcs}$ $V \text{ input} = 10 \text{ mV rms max.}$		TA	C _{ak} C _{ac} C _{kc}	-	1.0 2.5 2.5	pF pF pF
	<u>GROUP E</u>							
11.5	Soldering			IC				
10.1	Lead Fragility			IC				
10.2	Temperature cycling	Three cycles, $-40^\circ\text{C to } +100^\circ\text{C}$		IC				
10.3	Climatic			IC				
11.3	Fatigue			IC				
11.4	Shock	Hammer angle $= 30^\circ$		T.A				
	<u>Post Temperature- cycling, Climatic Fatigue and Shock Tests</u>	Combined AQL for each group of tests.	10.0					
8	Inoperatives		6.5					
5B.4	Forward Voltage	$I_f = 3\text{mA dc}$	6.5		V _f	-	1.1	V
5B.2	Reverse Current (1)	$V_r = 50\text{V}$	6.5		I _r	-	110	μA

K1007 ref.	TEST	TEST CONDITIONS	AQL	INSP. LEVEL	SYM- BOL	LIMITS		UNITS
						Min.	Max.	
	<u>GROUP F</u>							
13.3.	LIFE	Halfwave circuit with resistive load P. I. V. = 80V min. f = 50 c/s min. I _o = 10 mA min. T _{amb} = 45°C min.		Ia				
	<u>Life Test end point 1,000 hours</u>	Combined AQL	10					
5B.4	Forward Voltage	I _f = 3 mA dc	6.5		V _f	-	1.1	V
5B2	Reverse Current(1)	V _r = 50V	6.5		I _r	-	110	/μA
13.4	Storage Life(1)	T _{amb} = -40°C t = 150 hrs		I				
13.5	Storage Life(2)	T _{amb} = 100°C t = 150 hrs		I				
	<u>Post storage life tests</u>	Combined AQL for each group of tests	6.5					
5B.4	Forward Voltage	I _f = 3 mA dc	4.0		V _f	-	1.1	V
5B.2	Reverse Current(1)	V _r = 50V	4.0		I _r	-	110	/μA
	<u>GROUP G</u>							
	Re-test after 28 days holding period			100%				
8	Inoperatives		0.5					
5B.4	Forward Voltage	I _f = 3 mA dc	1.0		V _f	-	1.0	V