MINISTRY OF SUPPLY - DLRD/RRE

VALVE ELECTRONIC SEMICONDUCTOR DEVICE

CV448

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

← indicates a change

TYPE OF DEVICE - Germanium rectifier Diode

CONSTRUCTION - Glass Body, wire end leads

PROTOTYPE - VX3069, VX4066

RATINGS AND CHARACTERISTICS

All limiting values are absolute

			Note
Max. Peak Inverse Voltage	(V)	100	A
Max. DC Reverse Voltage	(V)	75	A
Max. DC Forward Current	(mA)	25	A
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	B
Max. Continuous Vibration	(g)	10	
Max. Shock	(g)	500	

CAPACITANCES (pF)

C ak (max)	1.0
C ac (max)	2.5
C kc (max)	2.5

MARKING

See K1007/4

CV Number

Polarity markings

Manufacturer's Code

DIMENSIONS

See drawing on page 2

MOUNTING POSITION

Any

PACKAGING

See K1007, Section 14.

The date code shall appear on multiple packs of 100 or more.

NOTES

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.

CV448

FIG. 1. DERATING CURVES

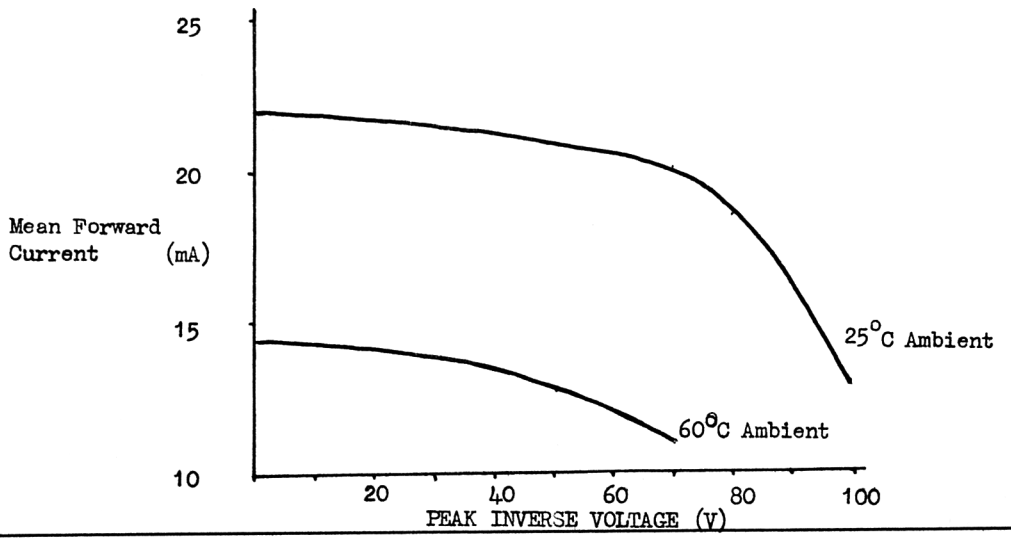
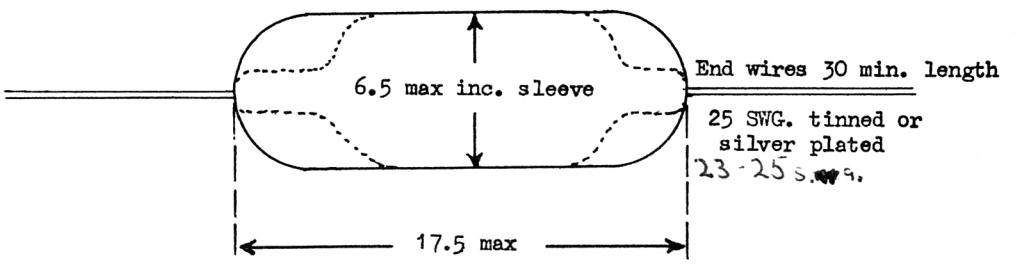


FIG. 2. DIMENSIONAL OUTLINE DRAWING
(Max. Space)



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 Min.	LIMITS Max	UNITS
	GROUP A							
5B.4	Forward Voltage	If = 3mA dc		100%	Vf	-	1.0	V
5B.2	Reverse Current (1)	Vr = 50V		100%	Ir	-	100	/uA
	GROUP B							
	Peak Inverse Voltage	Approved CRT Display	0.65	II	V_{piv}	100	-	V
	or alternatively Peak Reverse Current	V_{rpk} = 100V	0.65	II	I_{rpk}	-	500	/uA
	Reverse Voltage	I_r = 200 /uA	0.65	II	V_r	75	-	V
	GROUP C omitted							
	GROUP D							
5B.2	Reverse Current (2)	Vr = 10V Tamb = 60°C min	2.5	IA	Ir	-	50	/uA
5B.5.1	Capacitance	F = 45 Mcs ± 5 Mcs V input = 10 mV rms max.		TA	C ak C ac C kc	- - -	1.0 2.5 2.5	pF pF pF
	GROUP E							
11.5	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 = 30°		T.A				
	Post Temperature-cycling, Climatic Fatigue and Shock Tests	Combined AQL for each group of tests.	10.0					
8	Inoperatives		6.5					
5B.4	Forward Voltage	If = 3mA dc	6.5		Vf	-	1.1	V
5B.2	Reverse Current (1)	Vr = 50V	6.5		Ir		110	/uA

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

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.16634D

CV448

N O T E

Specification CV448 is now filed in Book 'S'.

Remove Issue 4 from its numerical position in EVS and destroy. File this sheet in its place as a reminder to refer to Book 'S'.

October, 1959.