

CdP₂

CdP₂,

()
[6, 7].
. 1,

n⁻ p-n , R_n-
, L₁ - , -
, L₂ -
, Z - , Y -
, Z -
, I - , I -

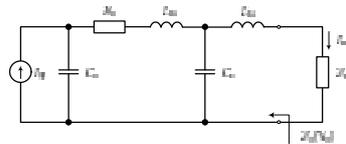
[1],

CdP₂.
D₄⁴

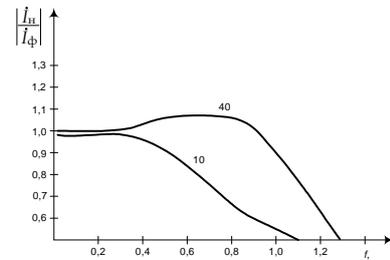
: n=3 , =0,9 , L₁=25 ,
L₂=6 , R_n=52 .
70 ()

.2.

[2].



. 1.



. 2.

CdP₂

() ,

50.

()

λ ,

0,9 .

()

()

(1,6

). [3]

[4, 5]

CdP₂ -

[7].

[3]

() ,

[3]

()

()

(

).

(
); -
).
 ()
 ,
 :
 10
 5 ,
 3,5 .
 ,
 -
 -
 3,2 12 ,
 ,
 600 / , ,
 10⁻⁸ - , 30 . 30-40
 18,5 . (20).

$$K = \frac{P}{P} \quad (1)$$

$$K = \frac{P}{P} = K \quad (2)$$

S- [7]:

$$K = |S_{21}|^2 \frac{(1-|r_2|^2)(1-|r_1|^2)}{|1-r_2 S_{11} - K S_{22} + \Delta S|} \quad (3)$$

(3) $\Delta S = S_{11}S_{22} - S_{12}S_{21}$, S_{11} , S_{22} -
 S_{21} , S_{12} -
 Z ,
 , 2-

CdP₂

1. A.I. - - CdP₂ - // -2003 - 1 1. 36-38.

2. 422 // -1989- 34 2, .271-276.

3. CdP₂ , .9, 1, 2011, .106-109.

4. .3.

- // .-1978

5. 9, 1918 – 1923.

5. Shepard F.D., Yang A. ., Tailor R.M. A 1 to 2 -m silicon avalanche Photodiode // Pro. JEEF – 1970 - V.58. N8 P. 1160-1162.

6. p-n

/ - .-1971- .25 - .159-203.

7. - 1992. – 224 .

10.10.2013

CDP₂

CdP₂,

NOISE CHARACTERISTICS OF CDP₂ PHOTODIODE

E.I. Zingueva

The characteristics of CdP₂ photodiode for optical communication were been investigated was proposed. The noise characteristics of CdP₂ photodiode for optical communication have been investigated. The physical equivalent scheme was proposed. It was created the reception optical model.

Key words: photodiode, optical, communication, cadmium diphoshide.