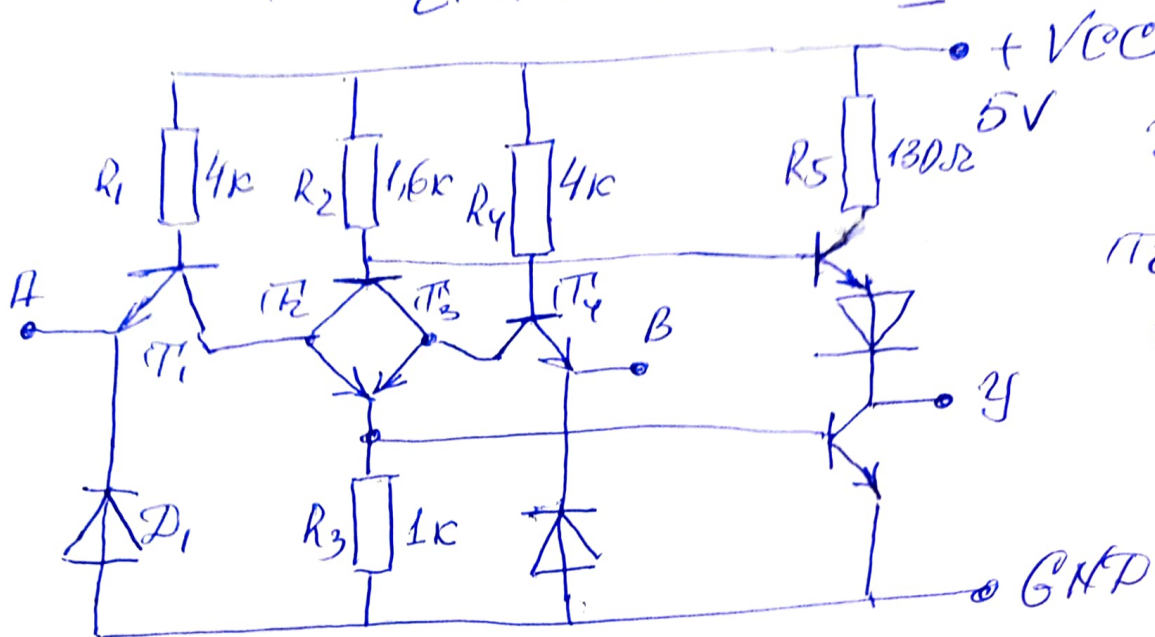


§1 Calculul puterii de disipare a rezistoarelor CT

①

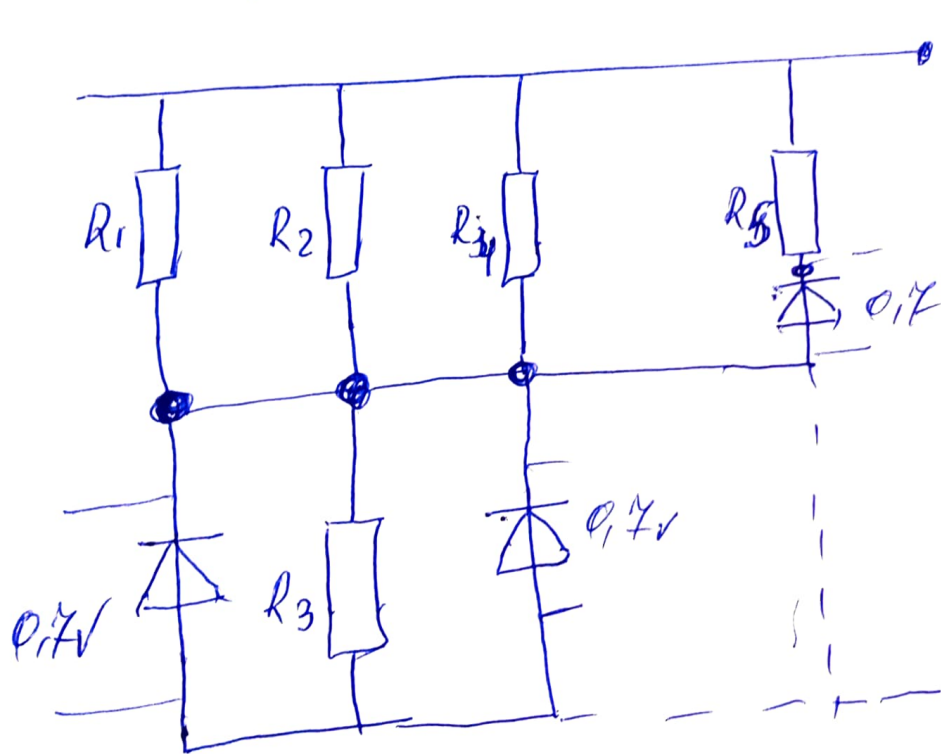


$$y = \overline{A + B}$$

Tabel de adevăr

A	B	y
0	0	1
1	x	0
x	1	0

Schema electrică



Cand tranzistorul este deschis compect si a intrat in stare de saturatie, poate fi inlocuit cu un panou echipoten

Schema echivalentă

Pe R_3 cade potențial de 0,7V
 Pe $R_1 \parallel R_2 \parallel R_4 \parallel R_5$ cade potențial de 4,3V

Puterea de disipare a rezistorului

$$P = I \cdot U = \frac{U^2}{R} = I^2 R$$

$$P_1 = \frac{U^2}{R_1} = \frac{4,3^2}{4,0} = \frac{18,49}{4,0} = 4,62 \text{ mW} \quad (2)$$

$$P_2 = \frac{U^2}{R_2} = \frac{4,3^2}{1,6} = \frac{18,49}{1,6} = 11,55 \text{ mW}$$

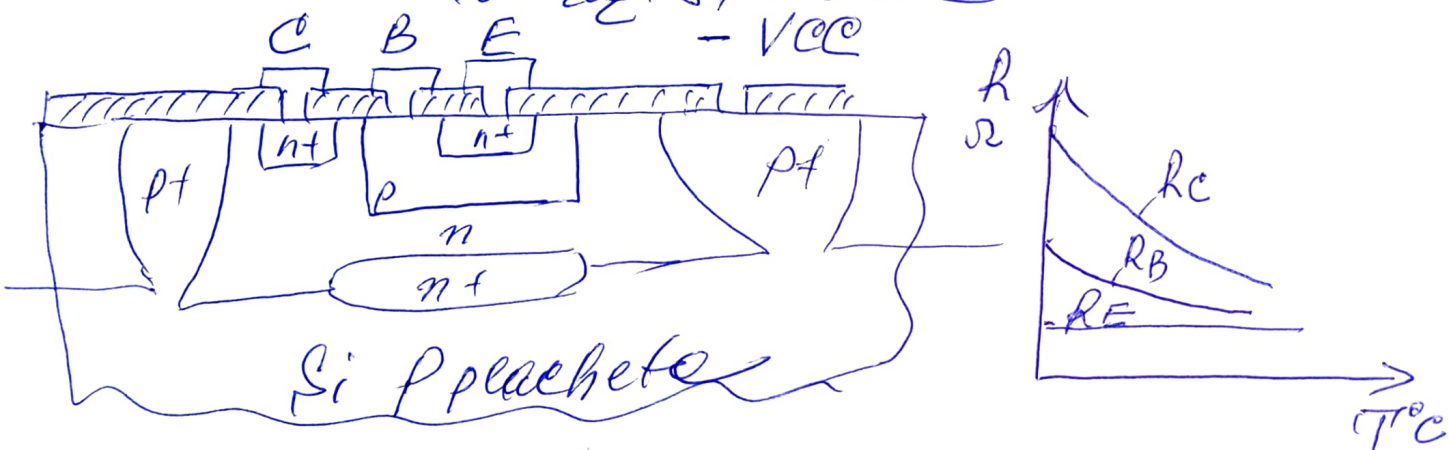
$$P_4 = \frac{U^2}{R_4} = 4,62 \text{ mW}$$

$$P_5 = \frac{(4,3 - 0,7)^2}{0,13} = \frac{12,25}{0,13} = 94,2 \text{ mW}$$

$$P_3 = \frac{0,7^2}{1} = \frac{0,49}{1} = 0,49 \text{ mW}$$

R	R ₁	R ₂	R ₃	R ₄	R ₅	Σ mW
P _{mW}	4,62	11,55	0,49	4,62	94,2	115,48

§2. Calculul ~~puterii~~ dimensiunilor geometrice
a rezistențelor



Parametrii rezistențelor

R_i - rezistențe nominale

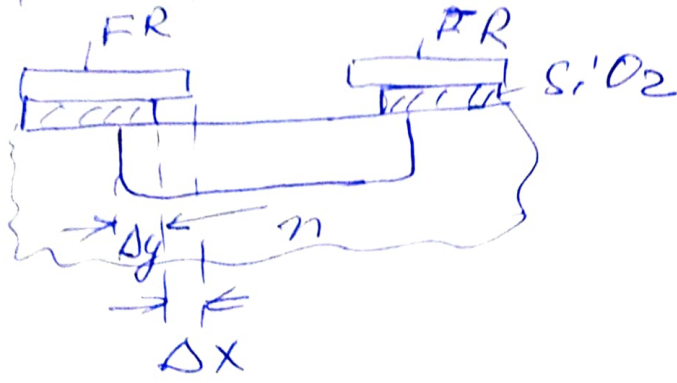
$\frac{\Delta R}{R}$ - precizie de confecționare - 20%

ρ_s - rezistivitatea de suprafață [$\frac{\Omega}{\square}$]

P_i - puterea de disipare [mW]

ΔT - intervalul de exploatare (-20 ÷ +40°C) = 60°C

$$b_{masci} = b_{cale} - 2(\Delta x + \Delta y)$$



$$\Delta x =$$
$$\Delta y =$$