|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Rezistenta, (Ω) | | Currentul, mA (calculat) | Tensiunea, V (calculat) | | Curentul I in circuit, mA (masurat) | Tensiunea, V (masurat) | |
| R1 | 99.8 | 40 | U1 | 3.992 | 42.4 | U1 | 4.25 |
| R2 | 200.7 | U2 | 8.028 | U2 | 8.52 |
| R3 | 53.5 | U3 | 2.14 | U3 | 2.26 |

U1 = 15.09V

I1 = 42.4 mA

U2 = 15.02V

I2 = 97mA

r0 = -0.07 / −54.6 = 0.0013 Ω  
E = 15.09 + 0.0013 \* 42.4 = 15.15V

I = 15.15 / (99.8 + 200.7 + 53.5 + 0.0013) = 15.15 / 354.0013 = 0.04 A = 40 mA

U1 = 0.04 \* 99.8 = 3.992 V

U2 = 0.04 \* 200.7 = 8.028 V

U3 = 0.04 \* 53.5 = 2.14 V

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Rezistenta, (Ω) | | Currentul, mA (calculat) | | Tensiunea, V (calculat) | | Curentul I in circuit, mA (masurat) | | Tensiunea, V (masurat) | |
| R1 | 99.8 | I1 | 60.5 | U1 | 6.0379 | I1 | 59.4 | U1 | 6.15 |
| R2 | 200.7 | I2 | 45 | U2 | 9.098 | I2 | 44.8 | U2 | 8.73 |
| R3 | 600 | I3 | 15 | U3 | 9.098 | I3 | 14.7 | U3 | 8.76 |

Rechiv = 99.8 + ((200.7\*600)/(200.7+600))= 99.8 + ( 120420 / 800.7) = 99.8 + 150.393 = 250.19 Ohm

I1 = 15.15 / (0.0013 + 250.19) = 15.15 / 250.1943 = 0.0605 A = 60.5mA

U1 = 0.0605 \* 99.8 = 6.0379 V

U2 = U3 = 0.0605 \* ((200.7\*600)/(200.7+600)) = 0.0605 \* 150.393 = 9.098V

I2 = 9.098 /200.7 = 0.045 A = 45 mA

I3 = 9.098 / 600 = 0.015 A = 15 mA

U = 0.0605\* 250.19 = 15.13 V

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Masurat | | | | | | | Calculat | | |
| R3 | U | U1 | U2 | I1 | I2 | I3 | U1+U2 | I2+I3 | P |
| Ω | V | | | mA | | | V | mA | mW |
| 0 50 100 150 300 400 500 600 700 | 14.98  15.15  15.18  15.01  15.17  15.09  15.11 | 14.52  8.65  7.09  6.64  6.41  6.20  6.05 | 0.33  6.33  7.93  8.33  8.59  8.63  8.9 | 139.4  83.2  68.1  64.2  60.3  59.7  58.4 | 1.6  32.6  40.8  42.8  43.3  44.9  45.8 | 137.6  50.6  27.3  21.3  17  14.7  12.6 | 14.85  14.98  15.02  14.97  15  14.83  14.95 | 139.2  83.2  68.1  64.1  60.3  59.6  58.4 | 2067.12  1246.336  1022.862  959.577  904.5  883.868  873.08 |