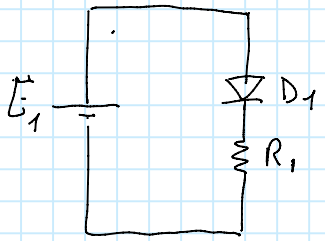
martedì 28 marzo 2023 08:10



$E_1 = 10V$

$V_{D1} = 4V$

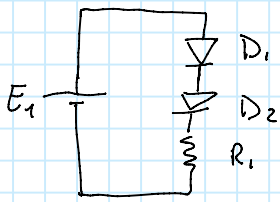
$I_{D1} = 0,015 \ A$

$R_1 = ?$

$V_{R_1} = E_1 - V_{D1} = 10 - 4 = 6V$

$I_{R_1} = I_{D1} = 0,015A$

$R_1 = \frac{V_{R_1}}{I_{R_1}} = \frac{6}{0,015} = 400 \ \Omega$



$E_1 = 10V$

$V_{D_1} = 3V$

$V_{D2} = 2V$

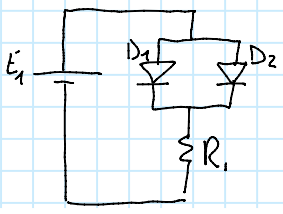
$I_{D1} = 20mA$

$R_1 = ?$

$V_{R_1} = E_1 - V_{D_1} - V_{D2} = 10 - 3 - 2 = 5V$

$I_{R_1} = I_{D_1} = 20mA$

$R_1 = \frac{V_{R_1}}{I_{R_1}} = \frac{5V}{20mA} = \frac{5}{0,02} = 250 \ \Omega$



$E_1 = 10V$

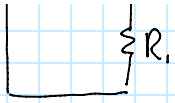
$V_{D_1} = 3V$

$V_{D2} = 3V$

$I_{D_1} = 20mA$

$I_{D_2} = 10mA$

$R_1 = ?$

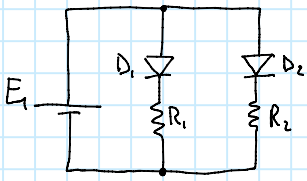


$I_{D1} = 20\,mA$
$I_{D2} = 10\,mA$

$I_{R1} = I_{D1} + I_{D2} = 20\,mA + 10\,mA = 30\,mA$

$V_{R1} = E_1 - V_{D1} = 10V - 3V = 7V$

$R_1 = \frac{V_{R1}}{I_{R1}} = \frac{7V}{30mA} = \frac{7}{0,03} = 233,\overline{3}\,\Omega$



$E_1 = 6V$
$V_{D1} = 2V$
$V_{D2} = 3V$
$I_{D1} = 20\,mA$
$I_{D2} = 10\,mA$

$R_1 = ?$

$R_2 = ?$

$V_{R1} = E_1 - V_{D1} = 6 - 2 = 4V$

$I_{R1} = I_{D1} = 20\,mA$

$R_1 = \frac{V_{R1}}{I_{R1}} = \frac{4}{20mA} = \frac{4}{0,02} = 200\,\Omega$

$V_{R2} = E_1 - V_{D2} = 6 - 3 = 3V$

$I_{R2} = I_{D2} = 10\,mA$

$R_2 = \frac{V_{R2}}{I_{R2}} = \frac{3V}{10mA} = \frac{3}{0,01} = 300\,\Omega$