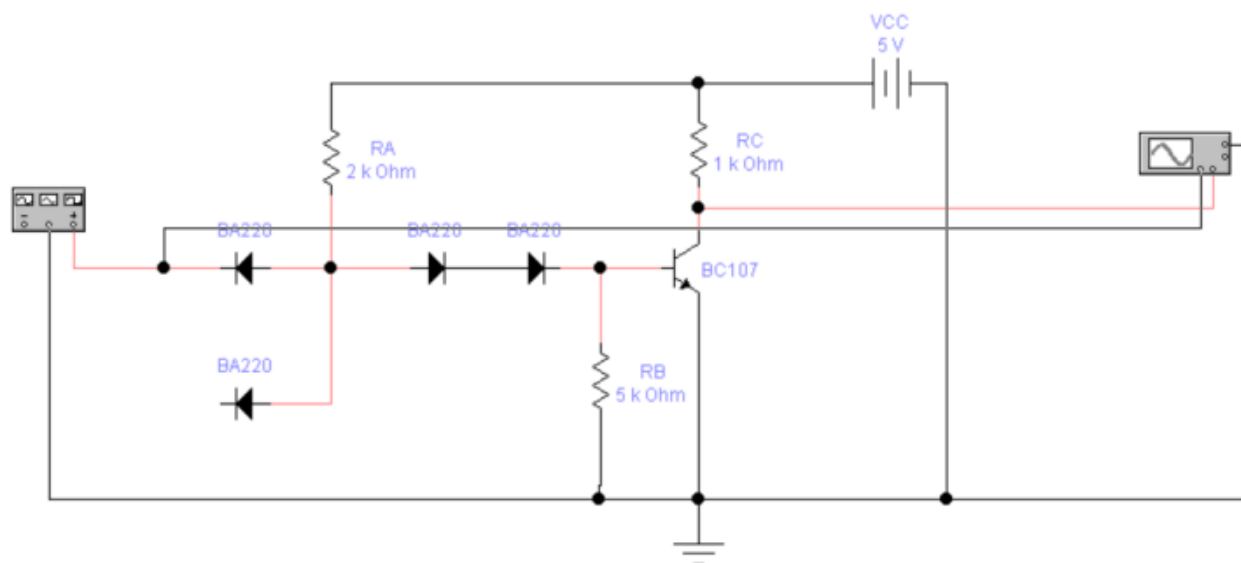


Aplicatia 7 CD

Circuitul :



Diagrame de timp:

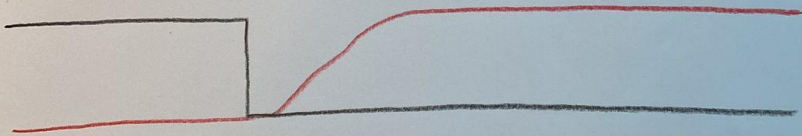
Berejinec Adrian-Daniel
1.1

Aplicatia 7 CD

Timpul de deblocare:



Timpul de blocare:



Masuratorile pentru cei 2 timpi pentru toate combinatiile de rezistente:

$R_{A1} = 1K$	$R_{B1} = 3K$	$R_{C1} = 0,6K$	$t_{db} = 15 \text{ ns}$	$t_{bl} = 175 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C2} = 1K$	$t_{db} = 14 \text{ ns}$	$t_{bl} = 177 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C3} = 2K$	$t_{db} = 13 \text{ ns}$	$t_{bl} = 180 \text{ ns}$	t_{db} scade, t_{bl} creste
	$R_{B2} = 6,3K$	$R_{C1} = 0,6K$	$t_{db} = 15 \text{ ns}$	$t_{bl} = 286 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C2} = 1K$	$t_{db} = 14,5 \text{ ns}$	$t_{bl} = 293 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C3} = 2K$	$t_{db} = 12,5 \text{ ns}$	$t_{bl} = 300 \text{ ns}$	t_{db} scade, t_{bl} creste
	$R_{B3} = 10K$	$R_{C1} = 0,6K$	$t_{db} = 14 \text{ ns}$	$t_{bl} = 438 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C2} = 1K$	$t_{db} = 13,8 \text{ ns}$	$t_{bl} = 440 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C3} = 2K$	$t_{db} = 12,5 \text{ ns}$	$t_{bl} = 445 \text{ ns}$	t_{db} scade, t_{bl} creste
	$R_{B4} = 20K$	$R_{C1} = 0,6K$	$t_{db} = 16 \text{ ns}$	$t_{bl} = 720 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C2} = 1K$	$t_{db} = 14 \text{ ns}$	$t_{bl} = 733 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C3} = 2K$	$t_{db} = 13 \text{ ns}$	$t_{bl} = 755 \text{ ns}$	t_{db} scade, t_{bl} creste
$R_{A2} = 2K$	$R_{B1} = 3K$	$R_{C1} = 0,6K$	$t_{db} = 30 \text{ ns}$	$t_{bl} = 168 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C2} = 1K$	$t_{db} = 28 \text{ ns}$	$t_{bl} = 172 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C3} = 2K$	$t_{db} = 26 \text{ ns}$	$t_{bl} = 173 \text{ ns}$	t_{db} scade, t_{bl} creste
	$R_{B2} = 6,3K$	$R_{C1} = 0,6K$	$t_{db} = 29 \text{ ns}$	$t_{bl} = 260 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C2} = 1K$	$t_{db} = 27 \text{ ns}$	$t_{bl} = 277 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C3} = 2K$	$t_{db} = 24 \text{ ns}$	$t_{bl} = 290 \text{ ns}$	t_{db} scade, t_{bl} creste
	$R_{B3} = 10K$	$R_{C1} = 0,6K$	$t_{db} = 29 \text{ ns}$	$t_{bl} = 450 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C2} = 1K$	$t_{db} = 28 \text{ ns}$	$t_{bl} = 452 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C3} = 2K$	$t_{db} = 26 \text{ ns}$	$t_{bl} = 456 \text{ ns}$	t_{db} scade, t_{bl} creste
	$R_{B4} = 20K$	$R_{C1} = 0,6K$	$t_{db} = 29 \text{ ns}$	$t_{bl} = 808 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C2} = 1K$	$t_{db} = 27 \text{ ns}$	$t_{bl} = 832 \text{ ns}$	t_{db} scade, t_{bl} creste

		$R_{C3} = 2K$	$t_{db} = 26 \text{ ns}$	$t_{bl} = 835 \text{ ns}$	t_{db} scade, t_{bl} creste
$R_{A3} = 5,33K$	$R_{B1} = 3K$	$R_{C1} = 0,6K$	$t_{db} = 115 \text{ ns}$	$t_{bl} = 127 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C2} = 1K$	$t_{db} = 100 \text{ ns}$	$t_{bl} = 147 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C3} = 2K$	$t_{db} = 89 \text{ ns}$	$t_{bl} = 163 \text{ ns}$	t_{db} scade, t_{bl} creste
	$R_{B2} = 6,3K$	$R_{C1} = 0,6K$	$t_{db} = 82 \text{ ns}$	$t_{bl} = 230 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C2} = 1K$	$t_{db} = 73 \text{ ns}$	$t_{bl} = 270 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C3} = 2K$	$t_{db} = 71 \text{ ns}$	$t_{bl} = 292 \text{ ns}$	t_{db} scade, t_{bl} creste
	$R_{B3} = 10K$	$R_{C1} = 0,6K$	$t_{db} = 85 \text{ ns}$	$t_{bl} = 462 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C2} = 1K$	$t_{db} = 74 \text{ ns}$	$t_{bl} = 476 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C3} = 2K$	$t_{db} = 67 \text{ ns}$	$t_{bl} = 483 \text{ ns}$	t_{db} scade, t_{bl} creste
	$R_{B4} = 20K$	$R_{C1} = 0,6K$	$t_{db} = 76 \text{ ns}$	$t_{bl} = 770 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C2} = 1K$	$t_{db} = 73 \text{ ns}$	$t_{bl} = 884 \text{ ns}$	t_{db} scade, t_{bl} creste
		$R_{C3} = 2K$	$t_{db} = 71 \text{ ns}$	$t_{bl} = 932 \text{ ns}$	t_{db} scade, t_{bl} creste

Dupa aceste masuratori, putem spune ca timpul de blocare este mai mare decat timpul de deblocare. Timpul de blocare creste odata cu cresterea rezistentei, in timp ce timpul de deblocare scade pe masura ce rezistenta scade.