LED Flasher Module R4.1-2-5; Values for Resistors R1/R2

	D1 In?	Target LED Current:		**15**	ma							
DC	Yes	Target R1/R2 value; ohms (R=V/I)										
Supply	Eff Vdc at	No. of parrallel LEDs					Vf=	**2.5**	R1/R2 Watts (W=I^2*R)			
Vdc	D1 output	6	4	3	2	1		Vs-Vf	6	4	3	2	1
									Limit: 0.25 watts				
16	14.6	134	202	269	403	807		12.1	0.18	0.18	0.18	0.18	0.18
14	12.6	112	168	224	337	673		10.1	0.15	0.15	0.15	0.15	0.15
12	10.6	90	135	180	270	540		8.1	0.12	0.12	0.12	0.12	0.12
10	8.6	68	102	136	203	407		6.1	0.09	0.09	0.09	0.09	0.09
9	7.6	57	85	113	170	340		5.1	0.08	0.08	0.08	0.08	0.08
8	6.6	46	68	91	137	273		4.1	0.06	0.06	0.06	0.06	0.06
6	4.6	23	35	47	70	140		2.1	0.03	0.03	0.03	0.03	0.03
5	3.6	12	18	24	37	73		1.1	0.02	0.02	0.02	0.02	0.02
	Total ma:	90	60	45	30	15							

		Target LED Current:		**15**	ma							
AC	D1 must!	Target R1/R2 value; ohms (R=V/I)										
Supply	Eff Vdc at	No. of parrallel LEDs					Vf=	**2.5**	R1/R2 Watts (W=I^2*R)			
Vac	D1 output	6	4	3	2	1		Vs-Vf	6	4	3	2	1
									Limit: 0.25 watts				
12	15.5	145	217	289	434	868		13.0	0.20	0.20	0.20	0.20	0.20
10	12.7	113	170	227	340	680		10.2	0.15	0.15	0.15	0.15	0.15
8	9.9	82	123	164	246	492		7.4	0.11	0.11	0.11	0.11	0.11
6	7.1	51	76	101	152	304		4.6	0.07	0.07	0.07	0.07	0.07
	Total ma:	90	60	45	30	15							

NOTES; Adjust target LED current and LED Vf to suit.

For the **DC** case, in cell B5 select if bridge diode D1 is included on the board or jumpered. Eff Vdc values will be adjusted accordingly.

Round the calculated resistance up/down to the nearest standard value.

LED current <8 ma is kind of dim.

LED current >10 ma looks good.

LED current of 15 ma is quite bright and is a good target. Max should be 20 ma.