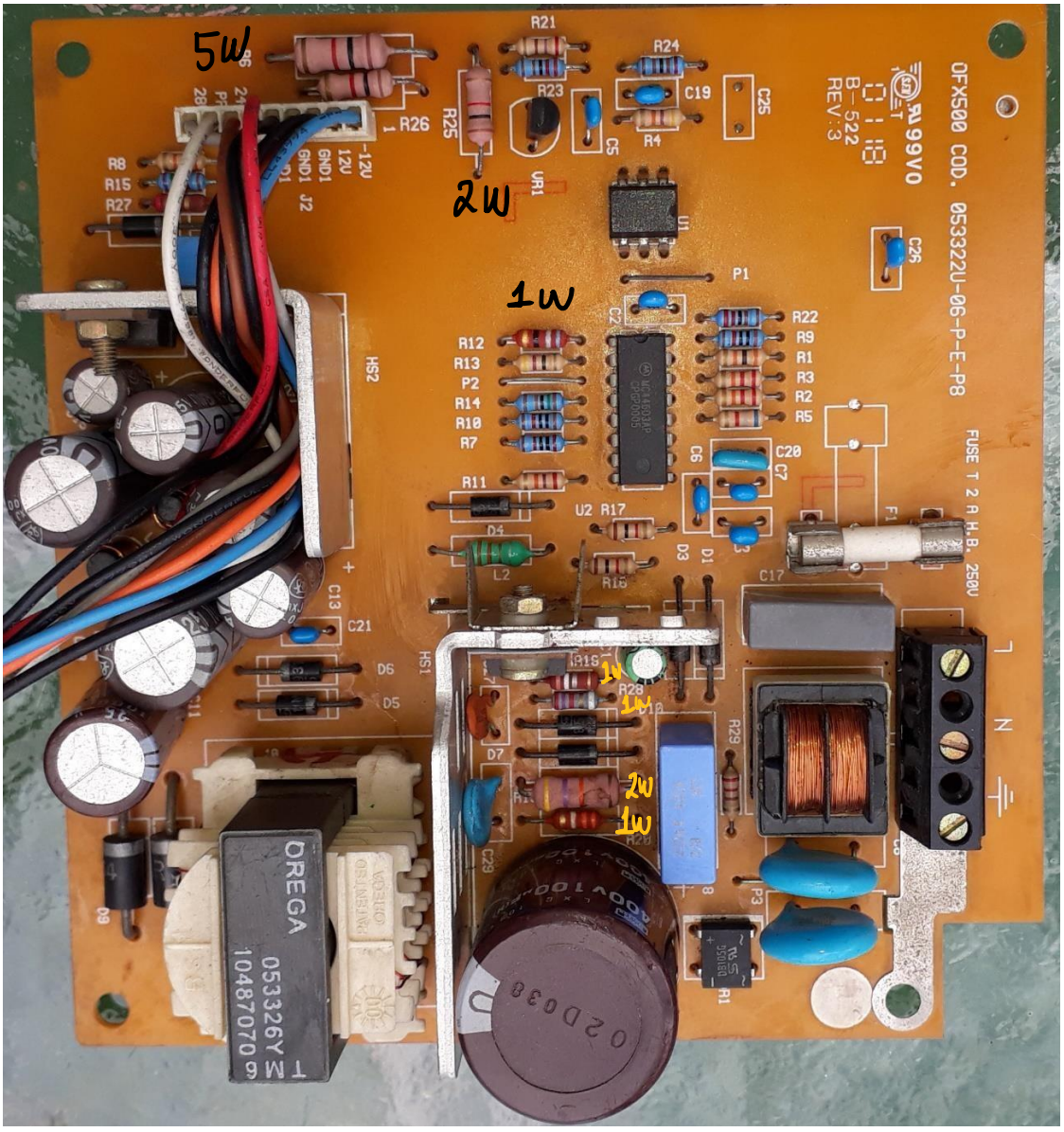
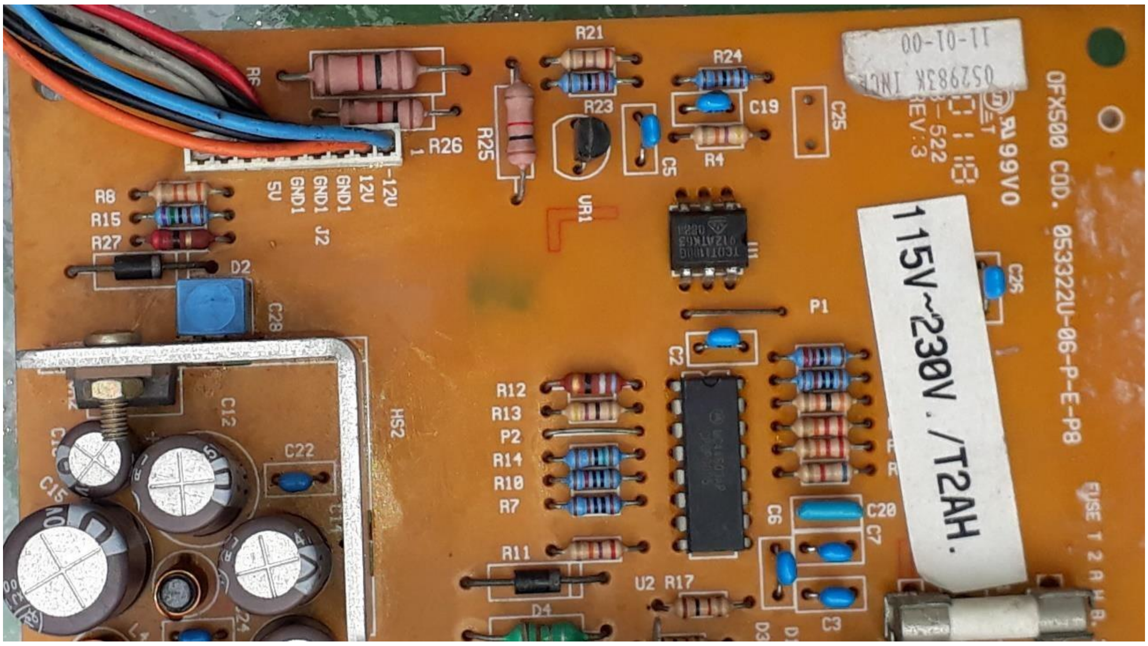
Laboratório de Circuitos Elétricos 2 de 07/12/2021

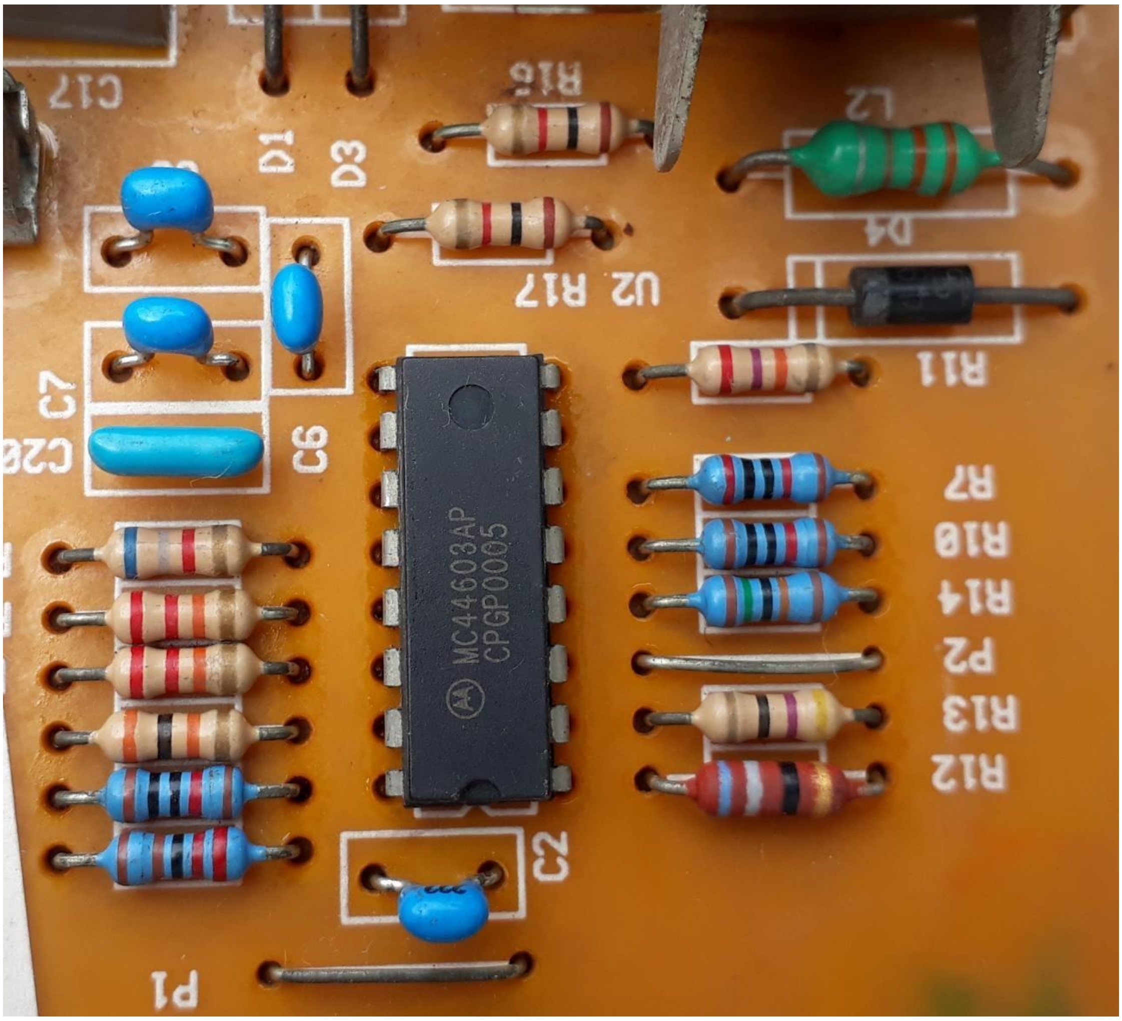
Atividade 1

Complete a tabela com os valores e tolerâncias dos resistores da PCI abaixo (em caso de dúvida, consulte o site: http://kiloohm.info).

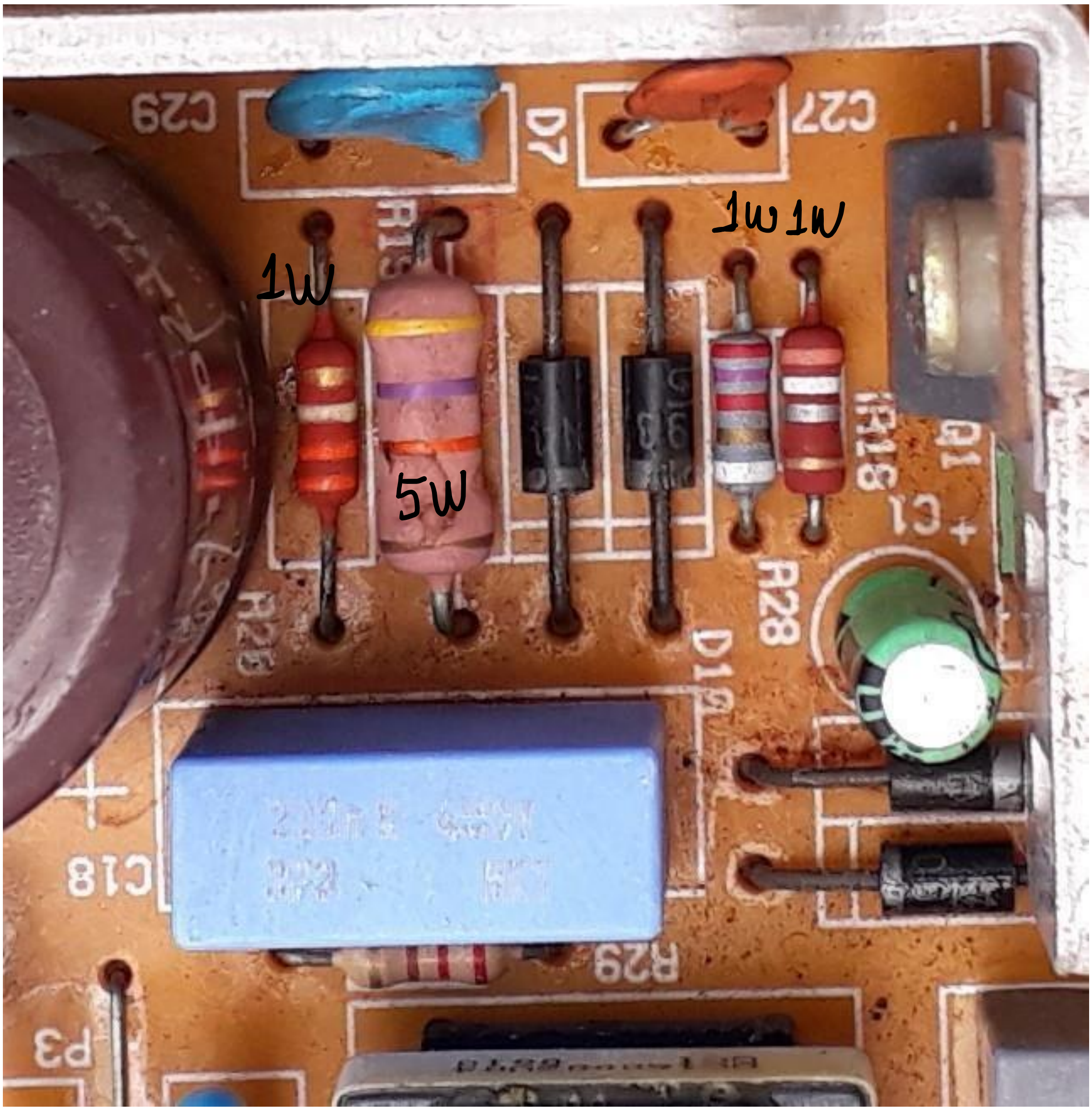




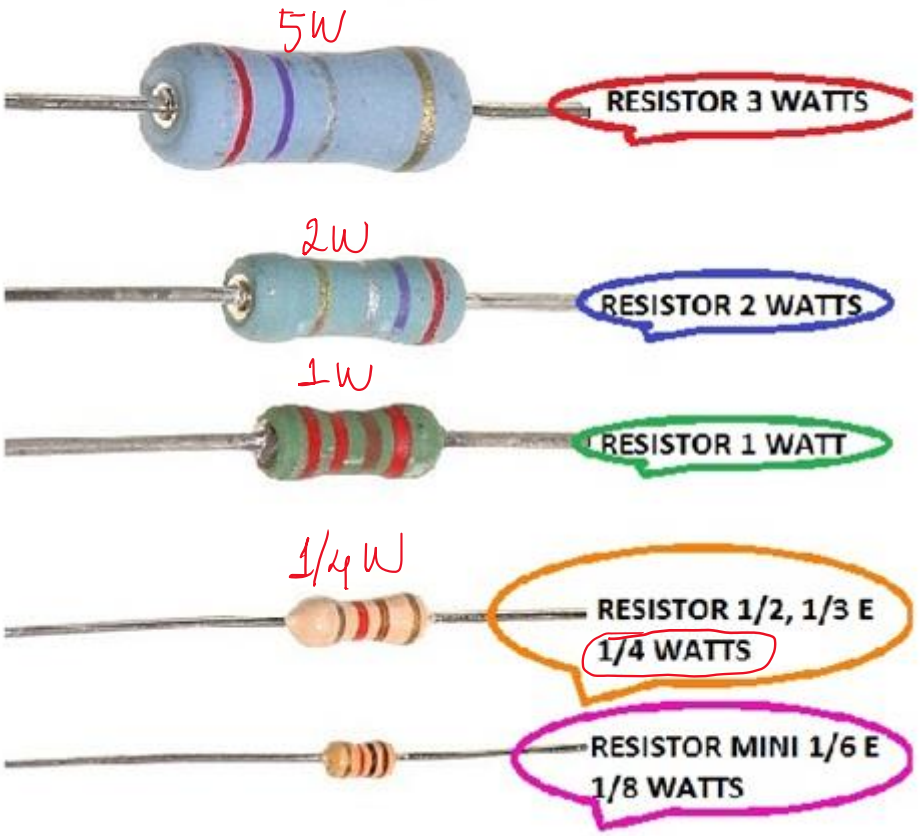
115V~230V /T2AH.
R21
R24
R23
C19
R4
C5
R25
R26
C25
VR1
P1
C26
R8
R15
R27
D2
C28
C12
C22
HS2
R12
R13
P2
R14
R10
R7
R11
C20
C7
C6
C3
U2 R17
D4
-12V
12V
GND1
GND1
GND1
5V
J2
0FX500 COD. 053322U-06-P-E-P8
REV:3



MC44603AP
CPGP0005
C17
R16
D1
D3
D4
U2 R17
R11
C7
C20
C6
R7
R10
R14
P2
R13
R12
C2
P1


1W
5W
1w 1W
C29
D7
C27
R26
R28
D10
C18
R29
P3
R18
Q1
C1

MODELOS DE RESISTORES COMERCIAL

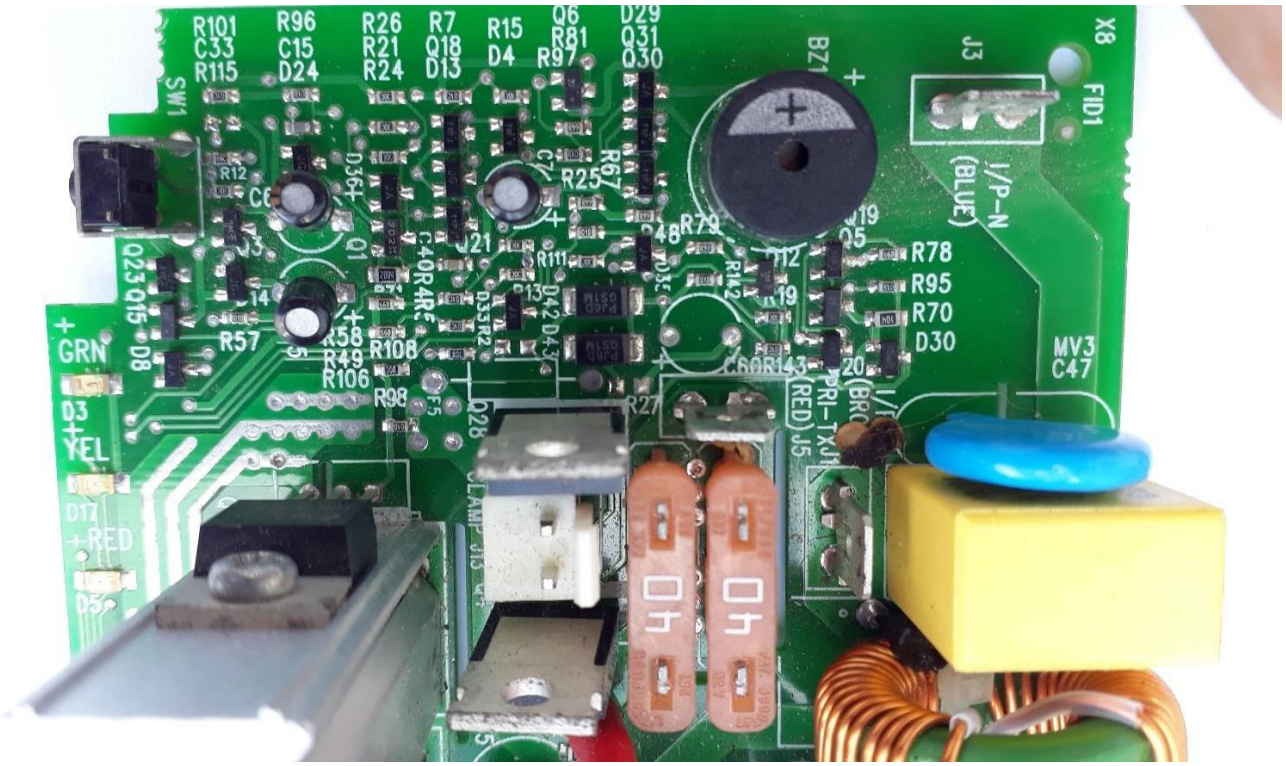


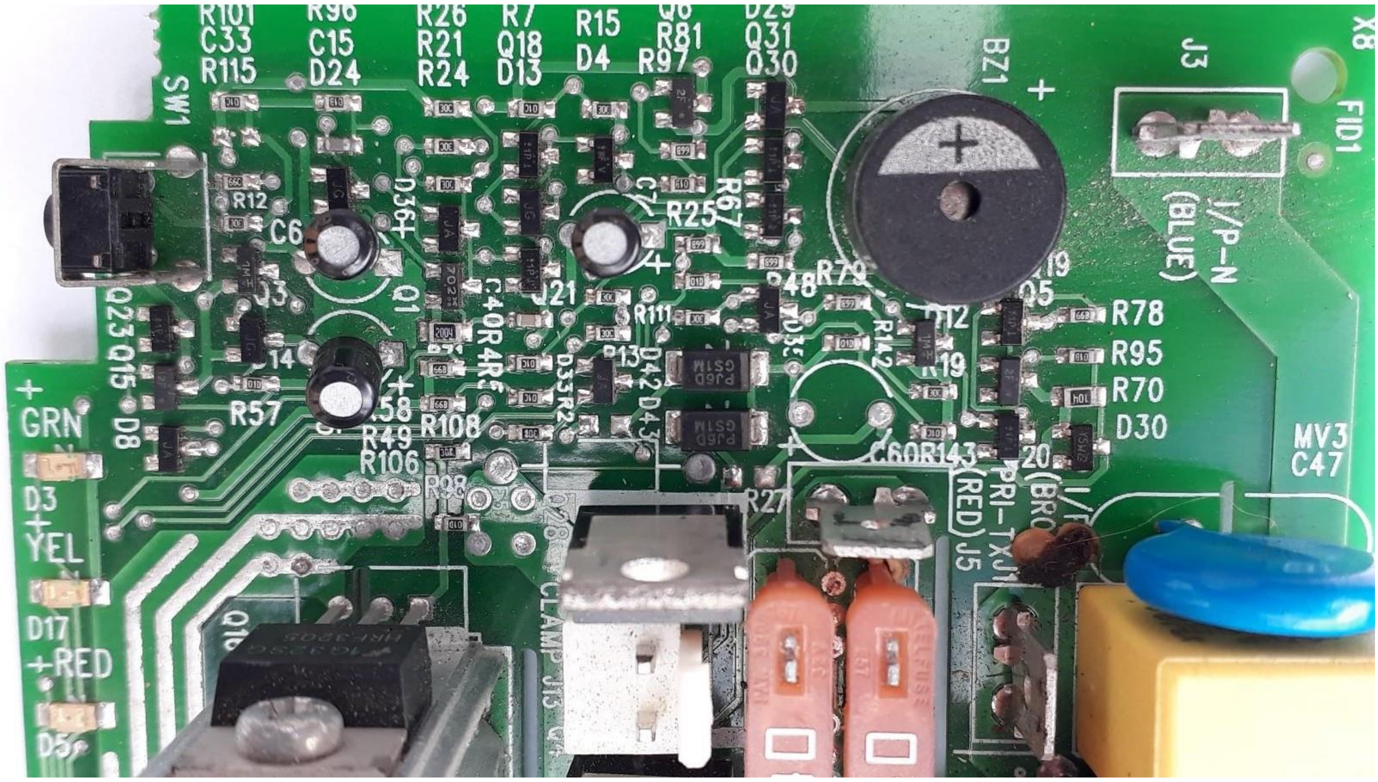
Ref.	Valor (Ω)	Tol. %	Potência (W)	Ref.	Valor (Ω)	Tol. %	Potência (W)	Ref.	Valor (Ω)	Tol. %	Potência (W)
R1				R11				R21			
R2				R12				R22			
R3				R13				R23			
R4				R14	XXXXXXX	XXX	XXXXX	R24			
R5				R15				R25			
R6				R16				R26			
R7				R17				R27			
R8				R18				R28			
R9				R19				R29			
R10				R20				R30			

Atividade 2

Acesse o site: http://kiloohm.info para consultar as tabelas de resistores SMD (formatos: 3 dígitos e 11A) e complete a tabela com os valores dos resistores SMD da PCI abaixo:

Ref.	Valor (Ω)	Código Marcado	Ref.	Valor (Ω)	Código Marcado	Ref.	Valor (Ω)	Código Marcado
R26	20kΩ	30C						




R101
C33
R115
R96
C15
D24
R26
R21
R24
R7
Q18
D13
R15
D4
Q6
R81
R97
D29
Q31
Q30
BZ1
J3
X8
FID1
SW1
I/P-N
(BLUE)
R12
C6
Q1
R25
R67
R111
R78
R95
R70
D30
MV3
C47
Q23
Q15
D8
R57
R49
R108
R106
R27
C60R143
GRN
D3
YEL
D17
RED
D5
CLAMP

Tabelas de valores de resistores SMD

Standard EIA-96 Values Table - decade 0.1 to 1 Ω

01Z = 0.1 Ω	02Z = 0.102 Ω	03Z = 0.105 Ω	04Z = 0.107 Ω	05Z = 0.11 Ω	06Z = 0.113 Ω
07Z = 0.115 Ω	08Z = 0.118 Ω	09Z = 0.121 Ω	10Z = 0.124 Ω	11Z = 0.127 Ω	12Z = 0.13 Ω
13Z = 0.133 Ω	14Z = 0.137 Ω	15Z = 0.14 Ω	16Z = 0.143 Ω	17Z = 0.147 Ω	18Z = 0.15 Ω
19Z = 0.154 Ω	20Z = 0.158 Ω	21Z = 0.162 Ω	22Z = 0.165 Ω	23Z = 0.169 Ω	24Z = 0.174 Ω
25Z = 0.178 Ω	26Z = 0.182 Ω	27Z = 0.187 Ω	28Z = 0.191 Ω	29Z = 0.196 Ω	30Z = 0.2 Ω
31Z = 0.205 Ω	32Z = 0.21 Ω	33Z = 0.215 Ω	34Z = 0.221 Ω	35Z = 0.226 Ω	36Z = 0.232 Ω
37Z = 0.237 Ω	38Z = 0.243 Ω	39Z = 0.249 Ω	40Z = 0.255 Ω	41Z = 0.261 Ω	42Z = 0.267 Ω
43Z = 0.274 Ω	44Z = 0.28 Ω	45Z = 0.287 Ω	46Z = 0.294 Ω	47Z = 0.301 Ω	48Z = 0.309 Ω
49Z = 0.316 Ω	50Z = 0.324 Ω	51Z = 0.332 Ω	52Z = 0.34 Ω	53Z = 0.348 Ω	54Z = 0.357 Ω
55Z = 0.365 Ω	56Z = 0.374 Ω	57Z = 0.383 Ω	58Z = 0.392 Ω	59Z = 0.402 Ω	60Z = 0.412 Ω
61Z = 0.422 Ω	62Z = 0.432 Ω	63Z = 0.442 Ω	64Z = 0.453 Ω	65Z = 0.464 Ω	66Z = 0.475 Ω
67Z = 0.487 Ω	68Z = 0.499 Ω	69Z = 0.511 Ω	70Z = 0.523 Ω	71Z = 0.536 Ω	72Z = 0.549 Ω
73Z = 0.562 Ω	74Z = 0.576 Ω	75Z = 0.59 Ω	76Z = 0.604 Ω	77Z = 0.619 Ω	78Z = 0.634 Ω
79Z = 0.649 Ω	80Z = 0.665 Ω	81Z = 0.681 Ω	82Z = 0.698 Ω	83Z = 0.715 Ω	84Z = 0.732 Ω
85Z = 0.75 Ω	86Z = 0.768 Ω	87Z = 0.787 Ω	88Z = 0.806 Ω	89Z = 0.825 Ω	90Z = 0.845 Ω
91Z = 0.866 Ω	92Z = 0.887 Ω	93Z = 0.909 Ω	94Z = 0.931 Ω	95Z = 0.953 Ω	96Z = 0.976 Ω

Standard EIA-96 Values Table - decade 1 to 10 Ω

01Y = 1 Ω	02Y = 1.02 Ω	03Y = 1.05 Ω	04Y = 1.07 Ω	05Y = 1.1 Ω	06Y = 1.13 Ω
07Y = 1.15 Ω	08Y = 1.18 Ω	09Y = 1.21 Ω	10Y = 1.24 Ω	11Y = 1.27 Ω	12Y = 1.3 Ω
13Y = 1.33 Ω	14Y = 1.37 Ω	15Y = 1.4 Ω	16Y = 1.43 Ω	17Y = 1.47 Ω	18Y = 1.5 Ω
19Y = 1.54 Ω	20Y = 1.58 Ω	21Y = 1.62 Ω	22Y = 1.65 Ω	23Y = 1.69 Ω	24Y = 1.74 Ω
25Y = 1.78 Ω	26Y = 1.82 Ω	27Y = 1.87 Ω	28Y = 1.91 Ω	29Y = 1.96 Ω	30Y = 2 Ω
31Y = 2.05 Ω	32Y = 2.1 Ω	33Y = 2.15 Ω	34Y = 2.21 Ω	35Y = 2.26 Ω	36Y = 2.32 Ω
37Y = 2.37 Ω	38Y = 2.43 Ω	39Y = 2.49 Ω	40Y = 2.55 Ω	41Y = 2.61 Ω	42Y = 2.67 Ω
43Y = 2.74 Ω	44Y = 2.8 Ω	45Y = 2.87 Ω	46Y = 2.94 Ω	47Y = 3.01 Ω	48Y = 3.09 Ω
49Y = 3.16 Ω	50Y = 3.24 Ω	51Y = 3.32 Ω	52Y = 3.4 Ω	53Y = 3.48 Ω	54Y = 3.57 Ω
55Y = 3.65 Ω	56Y = 3.74 Ω	57Y = 3.83 Ω	58Y = 3.92 Ω	59Y = 4.02 Ω	60Y = 4.12 Ω
61Y = 4.22 Ω	62Y = 4.32 Ω	63Y = 4.42 Ω	64Y = 4.53 Ω	65Y = 4.64 Ω	66Y = 4.75 Ω
67Y = 4.87 Ω	68Y = 4.99 Ω	69Y = 5.11 Ω	70Y = 5.23 Ω	71Y = 5.36 Ω	72Y = 5.49 Ω
73Y = 5.62 Ω	74Y = 5.76 Ω	75Y = 5.9 Ω	76Y = 6.04 Ω	77Y = 6.19 Ω	78Y = 6.34 Ω
79Y = 6.49 Ω	80Y = 6.65 Ω	81Y = 6.81 Ω	82Y = 6.98 Ω	83Y = 7.15 Ω	84Y = 7.32 Ω
85Y = 7.5 Ω	86Y = 7.68 Ω	87Y = 7.87 Ω	88Y = 8.06 Ω	89Y = 8.25 Ω	90Y = 8.45 Ω
91Y = 8.66 Ω	92Y = 8.87 Ω	93Y = 9.09 Ω	94Y = 9.31 Ω	95Y = 9.53 Ω	96Y = 9.76 Ω

Standard EIA-96 Values Table - decade 10 to 100 Ω

01X = 10 Ω	02X = 10.2 Ω	03X = 10.5 Ω	04X = 10.7 Ω	05X = 11 Ω	06X = 11.3 Ω
07X = 11.5 Ω	08X = 11.8 Ω	09X = 12.1 Ω	10X = 12.4 Ω	11X = 12.7 Ω	12X = 13 Ω
13X = 13.3 Ω	14X = 13.7 Ω	15X = 14 Ω	16X = 14.3 Ω	17X = 14.7 Ω	18X = 15 Ω
19X = 15.4 Ω	20X = 15.8 Ω	21X = 16.2 Ω	22X = 16.5 Ω	23X = 16.9 Ω	24X = 17.4 Ω
25X = 17.8 Ω	26X = 18.2 Ω	27X = 18.7 Ω	28X = 19.1 Ω	29X = 19.6 Ω	30X = 20 Ω
31X = 20.5 Ω	32X = 21 Ω	33X = 21.5 Ω	34X = 22.1 Ω	35X = 22.6 Ω	36X = 23.2 Ω
37X = 23.7 Ω	38X = 24.3 Ω	39X = 24.9 Ω	40X = 25.5 Ω	41X = 26.1 Ω	42X = 26.7 Ω
43X = 27.4 Ω	44X = 28 Ω	45X = 28.7 Ω	46X = 29.4 Ω	47X = 30.1 Ω	48X = 30.9 Ω
49X = 31.6 Ω	50X = 32.4 Ω	51X = 33.2 Ω	52X = 34 Ω	53X = 34.8 Ω	54X = 35.7 Ω
55X = 36.5 Ω	56X = 37.4 Ω	57X = 38.3 Ω	58X = 39.2 Ω	59X = 40.2 Ω	60X = 41.2 Ω
61X = 42.2 Ω	62X = 43.2 Ω	63X = 44.2 Ω	64X = 45.3 Ω	65X = 46.4 Ω	66X = 47.5 Ω
67X = 48.7 Ω	68X = 49.9 Ω	69X = 51.1 Ω	70X = 52.3 Ω	71X = 53.6 Ω	72X = 54.9 Ω
73X = 56.2 Ω	74X = 57.6 Ω	75X = 59 Ω	76X = 60.4 Ω	77X = 61.9 Ω	78X = 63.4 Ω
79X = 64.9 Ω	80X = 66.5 Ω	81X = 68.1 Ω	82X = 69.8 Ω	83X = 71.5 Ω	84X = 73.2 Ω
85X = 75 Ω	86X = 76.8 Ω	87X = 78.7 Ω	88X = 80.6 Ω	89X = 82.5 Ω	90X = 84.5 Ω
91X = 86.6 Ω	92X = 88.7 Ω	93X = 90.9 Ω	94X = 93.1 Ω	95X = 95.3 Ω	96X = 97.6 Ω

Standard EIA-96 Values Table - decade 100 to 1000 Ω

01A = 100 Ω	02A = 102 Ω	03A = 105 Ω	04A = 107 Ω	05A = 110 Ω	06A = 113 Ω
07A = 115 Ω	08A = 118 Ω	09A = 121 Ω	10A = 124 Ω	11A = 127 Ω	12A = 130 Ω
13A = 133 Ω	14A = 137 Ω	15A = 140 Ω	16A = 143 Ω	17A = 147 Ω	18A = 150 Ω
19A = 154 Ω	20A = 158 Ω	21A = 162 Ω	22A = 165 Ω	23A = 169 Ω	24A = 174 Ω
25A = 178 Ω	26A = 182 Ω	27A = 187 Ω	28A = 191 Ω	29A = 196 Ω	30A = 200 Ω
31A = 205 Ω	32A = 210 Ω	33A = 215 Ω	34A = 221 Ω	35A = 226 Ω	36A = 232 Ω
37A = 237 Ω	38A = 243 Ω	39A = 249 Ω	40A = 255 Ω	41A = 261 Ω	42A = 267 Ω
43A = 274 Ω	44A = 280 Ω	45A = 287 Ω	46A = 294 Ω	47A = 301 Ω	48A = 309 Ω
49A = 316 Ω	50A = 324 Ω	51A = 332 Ω	52A = 340 Ω	53A = 348 Ω	54A = 357 Ω
55A = 365 Ω	56A = 374 Ω	57A = 383 Ω	58A = 392 Ω	59A = 402 Ω	60A = 412 Ω
61A = 422 Ω	62A = 432 Ω	63A = 442 Ω	64A = 453 Ω	65A = 464 Ω	66A = 475 Ω
67A = 487 Ω	68A = 499 Ω	69A = 511 Ω	70A = 523 Ω	71A = 536 Ω	72A = 549 Ω
73A = 562 Ω	74A = 576 Ω	75A = 590 Ω	76A = 604 Ω	77A = 619 Ω	78A = 634 Ω
79A = 649 Ω	80A = 665 Ω	81A = 681 Ω	82A = 698 Ω	83A = 715 Ω	84A = 732 Ω
85A = 750 Ω	86A = 768 Ω	87A = 787 Ω	88A = 806 Ω	89A = 825 Ω	90A = 845 Ω
91A = 866 Ω	92A = 887 Ω	93A = 909 Ω	94A = 931 Ω	95A = 953 Ω	96A = 976 Ω

Standard EIA-96 Values Table - decade 1 to 10 kΩ

01B = 1 kΩ	02B = 1.02 kΩ	03B = 1.05 kΩ	04B = 1.07 kΩ	05B = 1.1 kΩ	06B = 1.13 kΩ
07B = 1.15 kΩ	08B = 1.18 kΩ	09B = 1.21 kΩ	10B = 1.24 kΩ	11B = 1.27 kΩ	12B = 1.3 kΩ
13B = 1.33 kΩ	14B = 1.37 kΩ	15B = 1.4 kΩ	16B = 1.43 kΩ	17B = 1.47 kΩ	18B = 1.5 kΩ
19B = 1.54 kΩ	20B = 1.58 kΩ	21B = 1.62 kΩ	22B = 1.65 kΩ	23B = 1.69 kΩ	24B = 1.74 kΩ
25B = 1.78 kΩ	26B = 1.82 kΩ	27B = 1.87 kΩ	28B = 1.91 kΩ	29B = 1.96 kΩ	30B = 2 kΩ
31B = 2.05 kΩ	32B = 2.1 kΩ	33B = 2.15 kΩ	34B = 2.21 kΩ	35B = 2.26 kΩ	36B = 2.32 kΩ
37B = 2.37 kΩ	38B = 2.43 kΩ	39B = 2.49 kΩ	40B = 2.55 kΩ	41B = 2.61 kΩ	42B = 2.67 kΩ
43B = 2.74 kΩ	44B = 2.8 kΩ	45B = 2.87 kΩ	46B = 2.94 kΩ	47B = 3.01 kΩ	48B = 3.09 kΩ
49B = 3.16 kΩ	50B = 3.24 kΩ	51B = 3.32 kΩ	52B = 3.4 kΩ	53B = 3.48 kΩ	54B = 3.57 kΩ
55B = 3.65 kΩ	56B = 3.74 kΩ	57B = 3.83 kΩ	58B = 3.92 kΩ	59B = 4.02 kΩ	60B = 4.12 kΩ
61B = 4.22 kΩ	62B = 4.32 kΩ	63B = 4.42 kΩ	64B = 4.53 kΩ	65B = 4.64 kΩ	66B = 4.75 kΩ
67B = 4.87 kΩ	68B = 4.99 kΩ	69B = 5.11 kΩ	70B = 5.23 kΩ	71B = 5.36 kΩ	72B = 5.49 kΩ
73B = 5.62 kΩ	74B = 5.76 kΩ	75B = 5.9 kΩ	76B = 6.04 kΩ	77B = 6.19 kΩ	78B = 6.34 kΩ
79B = 6.49 kΩ	80B = 6.65 kΩ	81B = 6.81 kΩ	82B = 6.98 kΩ	83B = 7.15 kΩ	84B = 7.32 kΩ
85B = 7.5 kΩ	86B = 7.68 kΩ	87B = 7.87 kΩ	88B = 8.06 kΩ	89B = 8.25 kΩ	90B = 8.45 kΩ
91B = 8.66 kΩ	92B = 8.87 kΩ	93B = 9.09 kΩ	94B = 9.31 kΩ	95B = 9.53 kΩ	96B = 9.76 kΩ

Standard EIA-96 Values Table - decade 10 to 100 kΩ

01C = 10 kΩ	02C = 10.2 kΩ	03C = 10.5 kΩ	04C = 10.7 kΩ	05C = 11 kΩ	06C = 11.3 kΩ
07C = 11.5 kΩ	08C = 11.8 kΩ	09C = 12.1 kΩ	10C = 12.4 kΩ	11C = 12.7 kΩ	12C = 13 kΩ
13C = 13.3 kΩ	14C = 13.7 kΩ	15C = 14 kΩ	16C = 14.3 kΩ	17C = 14.7 kΩ	18C = 15 kΩ
19C = 15.4 kΩ	20C = 15.8 kΩ	21C = 16.2 kΩ	22C = 16.5 kΩ	23C = 16.9 kΩ	24C = 17.4 kΩ
25C = 17.8 kΩ	26C = 18.2 kΩ	27C = 18.7 kΩ	28C = 19.1 kΩ	29C = 19.6 kΩ	30C = 20 kΩ
31C = 20.5 kΩ	32C = 21 kΩ	33C = 21.5 kΩ	34C = 22.1 kΩ	35C = 22.6 kΩ	36C = 23.2 kΩ
37C = 23.7 kΩ	38C = 24.3 kΩ	39C = 24.9 kΩ	40C = 25.5 kΩ	41C = 26.1 kΩ	42C = 26.7 kΩ
43C = 27.4 kΩ	44C = 28 kΩ	45C = 28.7 kΩ	46C = 29.4 kΩ	47C = 30.1 kΩ	48C = 30.9 kΩ
49C = 31.6 kΩ	50C = 32.4 kΩ	51C = 33.2 kΩ	52C = 34 kΩ	53C = 34.8 kΩ	54C = 35.7 kΩ
55C = 36.5 kΩ	56C = 37.4 kΩ	57C = 38.3 kΩ	58C = 39.2 kΩ	59C = 40.2 kΩ	60C = 41.2 kΩ
61C = 42.2 kΩ	62C = 43.2 kΩ	63C = 44.2 kΩ	64C = 45.3 kΩ	65C = 46.4 kΩ	66C = 47.5 kΩ
67C = 48.7 kΩ	68C = 49.9 kΩ	69C = 51.1 kΩ	70C = 52.3 kΩ	71C = 53.6 kΩ	72C = 54.9 kΩ
73C = 56.2 kΩ	74C = 57.6 kΩ	75C = 59 kΩ	76C = 60.4 kΩ	77C = 61.9 kΩ	78C = 63.4 kΩ
79C = 64.9 kΩ	80C = 66.5 kΩ	81C = 68.1 kΩ	82C = 69.8 kΩ	83C = 71.5 kΩ	84C = 73.2 kΩ
85C = 75 kΩ	86C = 76.8 kΩ	87C = 78.7 kΩ	88C = 80.6 kΩ	89C = 82.5 kΩ	90C = 84.5 kΩ
91C = 86.6 kΩ	92C = 88.7 kΩ	93C = 90.9 kΩ	94C = 93.1 kΩ	95C = 95.3 kΩ	96C = 97.6 kΩ

Standard EIA-96 Values Table - decade 100 to 1000 kΩ

01D = 100 kΩ	02D = 102 kΩ	03D = 105 kΩ	04D = 107 kΩ	05D = 110 kΩ	06D = 113 kΩ
07D = 115 kΩ	08D = 118 kΩ	09D = 121 kΩ	10D = 124 kΩ	11D = 127 kΩ	12D = 130 kΩ
13D = 133 kΩ	14D = 137 kΩ	15D = 140 kΩ	16D = 143 kΩ	17D = 147 kΩ	18D = 150 kΩ
19D = 154 kΩ	20D = 158 kΩ	21D = 162 kΩ	22D = 165 kΩ	23D = 169 kΩ	24D = 174 kΩ
25D = 178 kΩ	26D = 182 kΩ	27D = 187 kΩ	28D = 191 kΩ	29D = 196 kΩ	30D = 200 kΩ
31D = 205 kΩ	32D = 210 kΩ	33D = 215 kΩ	34D = 221 kΩ	35D = 226 kΩ	36D = 232 kΩ
37D = 237 kΩ	38D = 243 kΩ	39D = 249 kΩ	40D = 255 kΩ	41D = 261 kΩ	42D = 267 kΩ
43D = 274 kΩ	44D = 280 kΩ	45D = 287 kΩ	46D = 294 kΩ	47D = 301 kΩ	48D = 309 kΩ
49D = 316 kΩ	50D = 324 kΩ	51D = 332 kΩ	52D = 340 kΩ	53D = 348 kΩ	54D = 357 kΩ
55D = 365 kΩ	56D = 374 kΩ	57D = 383 kΩ	58D = 392 kΩ	59D = 402 kΩ	60D = 412 kΩ
61D = 422 kΩ	62D = 432 kΩ	63D = 442 kΩ	64D = 453 kΩ	65D = 464 kΩ	66D = 475 kΩ
67D = 487 kΩ	68D = 499 kΩ	69D = 511 kΩ	70D = 523 kΩ	71D = 536 kΩ	72D = 549 kΩ
73D = 562 kΩ	74D = 576 kΩ	75D = 590 kΩ	76D = 604 kΩ	77D = 619 kΩ	78D = 634 kΩ
79D = 649 kΩ	80D = 665 kΩ	81D = 681 kΩ	82D = 698 kΩ	83D = 715 kΩ	84D = 732 kΩ
85D = 750 kΩ	86D = 768 kΩ	87D = 787 kΩ	88D = 806 kΩ	89D = 825 kΩ	90D = 845 kΩ
91D = 866 kΩ	92D = 887 kΩ	93D = 909 kΩ	94D = 931 kΩ	95D = 953 kΩ	96D = 976 kΩ