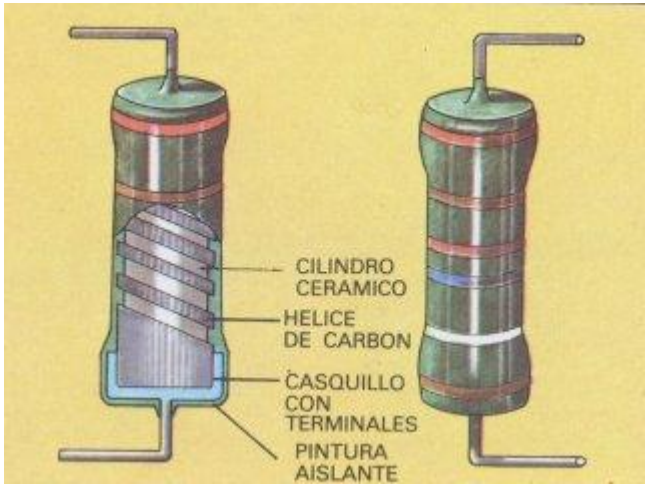
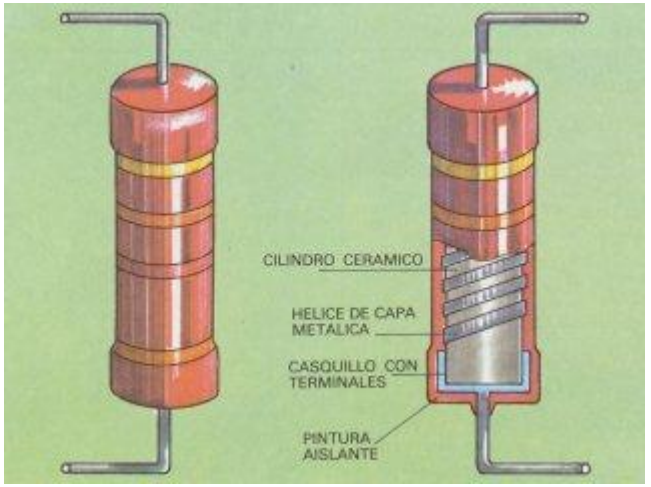
Resistencias

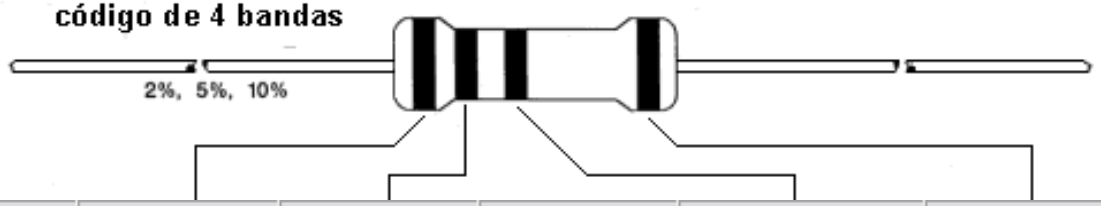
Construcción interna





Colores
de
Resistencias

código de 4 bandas



Color	1ª Banda	2ª Banda	3ª Banda	Multiplicador	Tolerancia
Negro	O	O	O	1ohm	
Marrón	1	1	1	10ohm	+1% (F)
Rojo	2	2	2	100ohm	+2% (G)
Naranja	3	3	3	1Kohm	
Amarillo	4	4	4	10Kohm	
Verde	5	5	5	100Kohm	S2 +0 5% (D)
Azul	6	6	6	1Mohm	+0.25% (C)
Violeta	7	7	7	10Mohm	+0.10% (B)
Gris	8	8	8		+0.05%
Blanco	9	9	9		
Oro				0.10	+5% (J)
Plata				0.01	+10% (K)

código de 5 bandas

Rango de valores típicos

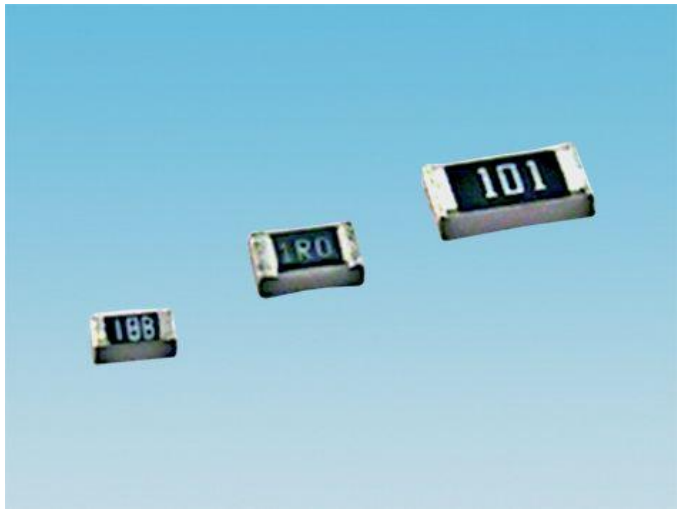
1 Ω	10 Ω	100 Ω	1 k	10 k	100 k	1 M	10 M
1.2 Ω	12 Ω	120 Ω	1k2	12 k	120 k	1M2	—
1.5 Ω	15 Ω	150 Ω	1k5	15 k	150 k	1M5	—
1.8 Ω	18 Ω	180 Ω	1k8	18 k	180 k	1M8	—
2.2 Ω	22 Ω	220 Ω	2k2	22 k	220 k	2M2	—
2.7 Ω	27 Ω	270 Ω	2k7	27 k	270 k	2M7	—
3.3 Ω	33 Ω	330 Ω	3k3	33 k	330 k	3M3	—
3.9 Ω	39 Ω	390 Ω	3k9	39 k	390 k	3M9	—
4.7 Ω	47 Ω	470 Ω	4k7	47 k	470 k	4M7	—
5.6 Ω	56 Ω	560 Ω	5k6	56 k	560 k	5M6	—
6.8 Ω	68 Ω	680 Ω	6k8	68 k	680 k	6M8	—
8.2 Ω	82 Ω	820 Ω	8k2	82 k	820 k	8M2	—

Valores normalizados de los resistores para diferentes tolerancias	
20%	1.00 1.50 2.20 3.30 4.70 6.80
10%	1.00 1.20 1.50 1.80 2.20 2.70 3.30 3.90 4.70 5.60 6.80 8.20
5%	1.00 1.10 1.20 1.30 1.50 1.60 1.80 2.00 2.20 2.40 2.70 3.00 3.30 3.60 3.90 4.30 4.70 5.10 5.60 6.20 6.80 7.50 8.20 9.10
2%	1.00 1.05 1.10 1.15 1.21 1.27 1.33 1.40 1.47 1.54 1.62 1.69 1.78 1.87 1.96 2.05 2.15 2.26 2.37 2.49 2.61 2.74 2.87 3.01 3.16 3.32 3.48 3.65 3.83 4.02 4.22 4.42 4.64 4.87 5.11 5.36 5.62 5.90 6.19 6.49 6.81 7.15 7.50 7.87 8.25 8.66 9.09 9.53
1%	1.00 1.02 1.05 1.07 1.10 1.13 1.15 1.18 1.21 1.24 1.27 1.30 1.33 1.37 1.40 1.43 1.47 1.50 1.54 1.58 1.62 1.65 1.69 1.74 1.78 1.82 1.87 1.91 1.96 2.00 2.05 2.10 2.15 2.21 2.26 2.32 2.37 2.43 2.49 2.55 2.61 2.67 2.74 2.80 2.87 2.94 3.01 3.09 3.16 3.24 3.32 3.40 3.48 3.57 3.65 3.74 3.83 3.92 4.02 4.12 4.22 4.32 4.42 4.53 4.64 4.75 4.87 4.99 5.11 5.23 5.36 5.49 5.62 5.76 5.90 6.04 6.19 6.34 6.49 6.65 6.81 6.98 7.15 7.32 7.50 7.68 7.87 8.06 8.25 8.45 8.66 8.87 9.09 9.31 9.53 9.76
0.5% 0.25% 0.1%	1.00 1.01 1.02 1.04 1.05 1.06 1.07 1.09 1.10 1.11 1.13 1.14 1.15 1.17 1.18 1.20 1.21 1.23 1.24 1.26 1.27 1.29 1.30 1.32 1.33 1.35 1.37 1.38 1.40 1.42 1.43 1.45 1.47 1.49 1.50 1.52 1.54 1.56 1.58 1.60 1.62 1.64 1.65 1.67 1.69 1.72 1.74 1.76 1.78 1.80 1.82 1.84 1.87 1.89 1.91 1.93 1.96 1.98 2.00 2.03 2.05 2.08 2.10 2.13 2.15 2.18 2.21 2.23 2.26 2.29 2.32 2.34 2.37 2.40 2.43 2.46 2.49 2.52 2.55 2.58 2.61 2.64 2.67 2.71 2.74 2.77 2.80 2.84 2.87 2.91 2.94 2.98 3.01 3.05 3.09 3.12 3.16 3.20 3.24 3.28 3.32 3.36 3.40 3.44 3.48 3.52 3.57 3.61 3.65 3.70 3.74 3.79 3.83 3.88 3.92 3.97 4.02 4.07 4.12 4.17 4.22 4.27 4.32 4.37 4.42 4.48 4.53 4.59 4.64 4.70 4.75 4.81 4.87 4.93 4.99 5.05 5.11 5.17 5.23 5.30 5.36 5.42 5.49 5.56 5.62 5.69 5.76 5.83 5.90 5.97 6.04 6.12 6.19 6.26 6.34 6.42 6.49 6.57 6.65 6.73 6.81 6.90 6.98 7.06 7.15 7.23 7.32 7.41 7.50 7.59 7.68 7.77 7.87 7.96 8.06 8.16 8.25 8.35 8.45 8.56 8.66 8.76 8.87 8.98 9.09 9.19 9.31 9.42 9.53 9.65 9.76 9.88

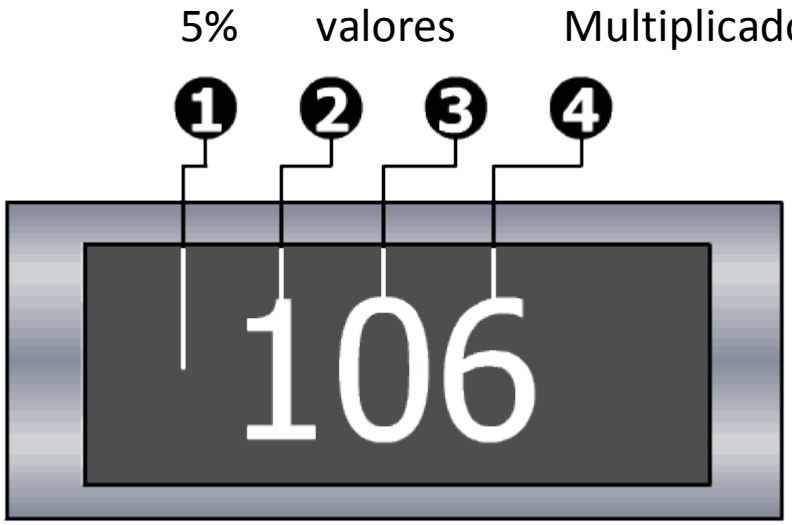
Disipación de potencia

1/4 W, 1/3 W, 1/2 W, 1 W, … , 100 W

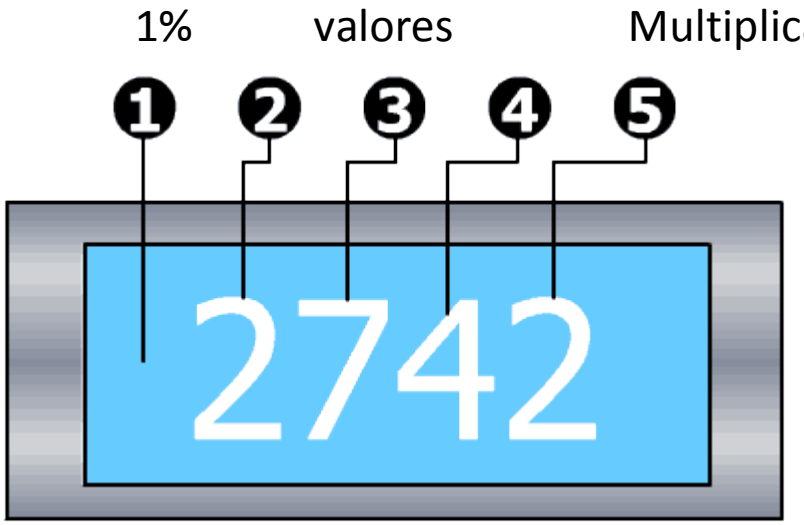
Resistencias de montaje superficial SMD –surface mounted device-


100
1R0
101


287
287
287

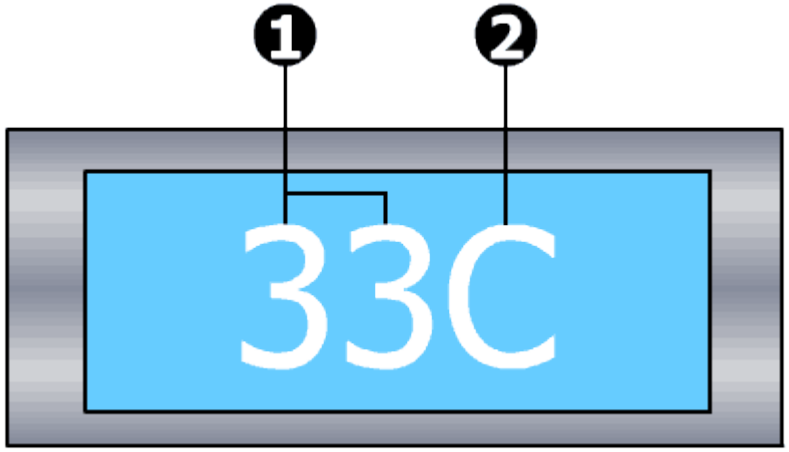

5%
valores
Multiplicador
1
2
3
4
106

R = ¿? Ω


1%
valores
Multiplicador
1
2
3
4
5
2742

R = ¿? Ω

Código Multiplicador



R = ¿? Ω

Códigos EIA-96

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

Código de Multiplicador EIA-96

$S = 10^{-2}$	$R = 10^{-1}$	$A = 10^{0}$	$B = 10^{1}$	$C = 10^{2}$	$D = 10^{3}$	$E = 10^{4}$	$F = 10^{5}$