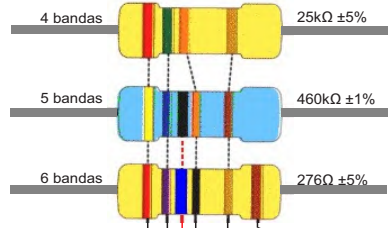


# Unidades básicas

## Nomenclatura de capacitores

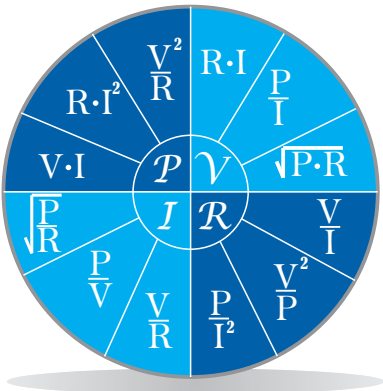
108	158	228	338	478	688
0.1pF	0.15pF	0.22pF	0.33pF	0.47pF	0.68pF
109	159	229	339	479	689
1.0pF	1.5pF	2.2pF	3.3pF	4.7pF	6.8pF
100	150	220	330	470	680
10pF	15pF	22pF	33pF	47pF	68pF
101	151	221	331	471	681
100pF	150pF	220pF	330pF	470pF	680pF
102	152	222	332	472	682
1nF	1.5nF	2.2nF	3.3nF	4.7nF	6.8nF
103	153	223	333	473	683
10nF	15nF	22nF	33nF	47nF	68nF
104	154	224	334	474	684
100nF	150nF	220nF	330nF	470nF	680nF
105	155	225	335	475	685
1uF	1.5uF	2.2uF	3.3uF	4.7uF	6.8uF



1er dígito	2do dígito	3er dígito	Multiplicador	Tolerancia	Coefficiente de temperatura
0	0	0	0.1 Oro	±5% Oro	100ppm
1	1	1	1	±1%	50ppm
2	2	2	10	±2%	15ppm
3	3	3	100		25ppm
4	4	4	1k		
5	5	5	10k		
6	6	6	100k	±0.5%	
7	7	7	1M	±0.25%	
8	8	8	10M	±0.1%	
9	9	9			

Magnitud	Unidades	Símbolo	Nombre
Superficie	m <sup>2</sup>		
Volumen	m <sup>3</sup>		
Velocidad	m/s		
Aceleración	m/s <sup>2</sup>		
Número de ondas	m <sup>-1</sup>		
Masa en volumen	kg/m <sup>3</sup>		
Caudal en volumen	m <sup>3</sup> /s		
Caudal másico	kg/s		
Velocidad angular	rad/s		
Aceleración angular	rad/s <sup>2</sup>		
Conductividad térmica	W/(m·K)		
Densidad de carga eléctrica	C/m <sup>3</sup>		
Energía molar	J/mol		
luminancia	cd/m <sup>2</sup>		
Permeabilidad	H/m		
Frecuencia	s <sup>-1</sup>	Hz	Hertz
Fuerza	kg·m·s <sup>-2</sup>	N	Newton
Presión	N·m <sup>-2</sup>	Pa	Pascal
Energía/trabajo	N·m	J	Joule
Potencia	J·s <sup>-1</sup>	W	Watt
Carga eléctrica	A·s	C	Coulomb
Potencial eléctrico	W·A <sup>-1</sup>	V	Volt
Capacidad eléctrica	C·V <sup>-1</sup>	F	Faradio
Resistencia eléctrica	V·A <sup>-1</sup>	Ω	Ohm
Conductividad	A·V <sup>-1</sup>	S	Siemens
Flujo magnético	V·s	Wb	Weber
Intensidad de campo	A·m <sup>-1</sup>	Lz	Lenz
Inducción magnética	Wb·m <sup>-2</sup>	T	Tesla
Inductancia	Wb·A <sup>-1</sup>	H	Henrio
Temperatura	K	°C	grados Celsius
Flujo luminoso	cd·sr	lm	lumen
Iluminación	lm·m <sup>-2</sup>	lx	lux
Actividad radiactiva	s <sup>-1</sup>	Bq	Becquerel
Dosis energética	J·kg <sup>-1</sup>	Gy	gray
Dosis equivalente	J·kg <sup>-1</sup>	Sv	sievert
Angulo plano		rad	radián
Angulo sólido		sr	estereorradián

Conversiones	
Ampere hora	3600 C
Angstrom	0.03731 F
Atmósferas	76 cm de Hg
BTU	1054.8 J
Calorías	3.968 BTU
Coulomb	1.036x10 <sup>-5</sup> F
Ergio	10 <sup>-7</sup> J
Radio	26.8 Amp/hr
Gausses	10 <sup>-8</sup> Wb/cm <sup>2</sup>
Gilberts	0.7958 amp-vueltas
HP	746 W
Joules	2.778x10 <sup>-4</sup> W/hr
	9.486x10 BTU
Kilogramo	2.205 lb
Kilowatts	14.33 cal / min
	1.355 CV
Lumen	0.001496 W
Maxwell	10 <sup>-8</sup> Wb
Newtons	9.81 kg
Pascales	1 N / m <sup>2</sup>
Pie	30.48 cm
Pulgada	2.54 cm
Tesla	1 Wb/m <sup>2</sup>
Wb/m <sup>2</sup>	10 <sup>4</sup> Gausses

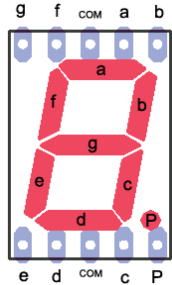


Peta	P	10 <sup>16</sup>
Exa	E	10 <sup>15</sup>
Tera	T	10 <sup>12</sup>
Giga	G	10 <sup>9</sup>
Mega	M	10 <sup>6</sup>
Kilo	K	10 <sup>3</sup>
Base	[V]	10 <sup>0</sup>
Mili	m	10 <sup>-3</sup>
micro	μ	10 <sup>-6</sup>
nano	n	10 <sup>-9</sup>
pico	p	10 <sup>-12</sup>
femto	f	10 <sup>-15</sup>
atto	a	10 <sup>-18</sup>

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A α	alfa	N ν	ni
B β	beta	Ξ ξ	xi
Γ γ	gamma	Ο ο	ómicron
Δ δ	delta	Π π	pi
E ε	épsilon	P ρ	ro
Z ζ	dseta	Σ σ	sigma
H η	eta	T τ	tau
Θ θ	zeta	Υ υ	ipsilon
I ι	iota	Φ φ	fi
K κ	kappa	X χ	ji
Λ λ	lambda	Ψ ψ	psi
M μ	mi	Ω ω	omega

BIN a DEC  
 $1 \cdot 2^7 + 1 \cdot 2^6 + 1 \cdot 2^5 + 1 \cdot 2^4 + 0 \cdot 2^3 + 0 \cdot 2^2 + 1 \cdot 2^1 + 0 \cdot 2^0 = 64 + 32 + 16 + 0 + 0 + 2 + 0 = 114$

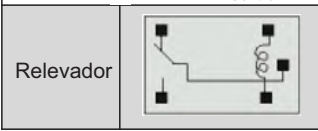
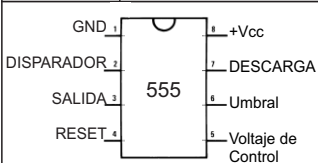
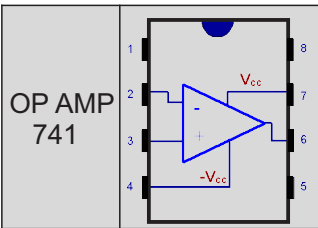


DEC	HEX	OCT	BIN	DEC	HEX	OCT	BIN	DEC	HEX	OCT	BIN	DEC	HEX	OCT	BIN
0	0	000	0000000	25	19	031	0011001	50	32	062	0110010	75	48	113	1001100
1	1	001	0000001	26	1A	032	0011010	51	33	063	0110011	76	4C	114	1001101
2	2	002	0000010	27	1B	033	0011011	52	34	064	0110100	77	4D	115	1001101
3	3	003	0000011	28	1C	034	0011100	53	35	065	0110101	78	4E	116	1001110
4	4	004	0000100	29	1D	035	0011101	54	36	066	0110110	79	4F	117	1001111
5	5	005	0000101	30	1E	036	0011110	55	37	067	0110111	80	50	120	1010000
6	6	006	0000110	31	1F	037	0011111	56	38	070	0111000	81	51	121	1010001
7	7	007	0000111	32	20	040	0100000	57	39	071	0111001	82	52	122	1010010
8	8	010	0001000	33	21	041	0100001	58	3A	072	0111010	83	53	123	1010011
9	9	011	0001001	34	22	042	0100010	59	3B	073	0111011	84	54	124	1010100
10	A	012	0001010	35	23	043	0100011	60	3C	074	0111100	85	55	125	1010101
11	B	013	0001011	36	24	044	0100100	61	3D	075	0111101	86	56	126	1010110
12	C	014	0001100	37	25	045	0100101	62	3E	076	0111110	87	57	127	1010111
13	D	015	0001101	38	26	046	0100110	63	3F	077	0111111	88	58	130	1011000
14	E	016	0001101	39	27	047	0100111	64	40	100	1000000	89	59	131	1011001
15	F	017	0001111	40	28	050	0101000	65	41	101	1000001	90	5A	132	1011010
16	10	020	0010000	41	29	051	0101001	66	42	102	1000010	91	5B	133	1011011
17	11	021	0010001	42	2A	052	0101010	67	43	103	1000011	92	5C	134	1011100
18	12	022	0010010	43	2B	053	0101011	68	44	104	1000100	93	5D	135	1011101
19	13	023	0010011	44	2C	054	0101100	69	45	105	1000101	94	5E	136	1011110
20	14	024	0010100	45	2D	055	0101101	70	46	106	1000110	95	5F	137	1011111
21	15	025	0010101	46	2E	056	0101110	71	47	107	1000111	96	60	140	1010000
22	16	026	0010110	47	2F	057	0101111	72	48	110	1000000	97	61	141	1100001
23	17	027	0010111	48	30	060	0110000	73	49	111	1001001	98	62	142	1100010
24	18	030	0011000	49	31	061	0110001	74	4A	112	1001010	99	63	143	1100011

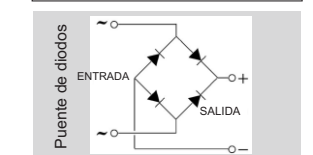
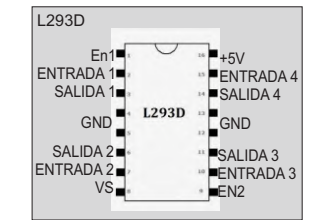
Compuertas lógicas

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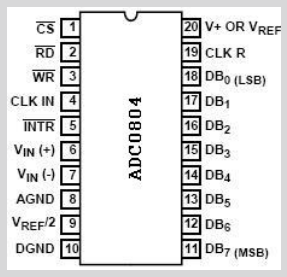
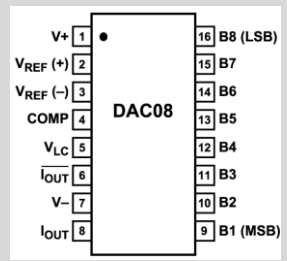
COMPUERTA	TABLA DE VERDAD	INTEGRADO	COMPUERTA	TABLA DE VERDAD	INTEGRADO																														
<b>AND</b>  $C = A \cdot B$	<table border="1"> <tr><td>A</td><td>B</td><td>C</td></tr> <tr><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>1</td><td>0</td></tr> <tr><td>1</td><td>0</td><td>0</td></tr> <tr><td>1</td><td>1</td><td>1</td></tr> </table>	A	B	C	0	0	0	0	1	0	1	0	0	1	1	1	74LS08	<b>NAND</b>  $C = \overline{A \cdot B}$	<table border="1"> <tr><td>A</td><td>B</td><td>C</td></tr> <tr><td>0</td><td>0</td><td>1</td></tr> <tr><td>0</td><td>1</td><td>1</td></tr> <tr><td>1</td><td>0</td><td>1</td></tr> <tr><td>1</td><td>1</td><td>0</td></tr> </table>	A	B	C	0	0	1	0	1	1	1	0	1	1	1	0	74LS00
A	B	C																																	
0	0	0																																	
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A	B	C																																	
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<b>OR</b>  $C = A + B$	<table border="1"> <tr><td>A</td><td>B</td><td>C</td></tr> <tr><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>1</td><td>1</td></tr> <tr><td>1</td><td>0</td><td>1</td></tr> <tr><td>1</td><td>1</td><td>1</td></tr> </table>	A	B	C	0	0	0	0	1	1	1	0	1	1	1	1	74LS32	<b>NOR</b>  $C = \overline{A + B}$	<table border="1"> <tr><td>A</td><td>B</td><td>C</td></tr> <tr><td>0</td><td>0</td><td>1</td></tr> <tr><td>0</td><td>1</td><td>0</td></tr> <tr><td>1</td><td>0</td><td>0</td></tr> <tr><td>1</td><td>1</td><td>0</td></tr> </table>	A	B	C	0	0	1	0	1	0	1	0	0	1	1	0	74LS02
A	B	C																																	
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<b>XOR</b>  $C = A \cdot \overline{B} + \overline{A} \cdot B$	<table border="1"> <tr><td>A</td><td>B</td><td>C</td></tr> <tr><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>1</td><td>1</td></tr> <tr><td>1</td><td>0</td><td>1</td></tr> <tr><td>1</td><td>1</td><td>0</td></tr> </table>	A	B	C	0	0	0	0	1	1	1	0	1	1	1	0	74LS86	<b>XNOR</b>  $C = A \cdot B + \overline{A} \cdot \overline{B}$	<table border="1"> <tr><td>A</td><td>B</td><td>C</td></tr> <tr><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>1</td><td>1</td></tr> <tr><td>1</td><td>0</td><td>1</td></tr> <tr><td>1</td><td>1</td><td>0</td></tr> </table>	A	B	C	0	0	0	0	1	1	1	0	1	1	1	0	74LS266
A	B	C																																	
0	0	0																																	
0	1	1																																	
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A	B	C																																	
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0	1	1																																	
1	0	1																																	
1	1	0																																	
<b>NOT</b>  $C = \overline{B}$	<table border="1"> <tr><td>B</td><td>C</td></tr> <tr><td>0</td><td>1</td></tr> <tr><td>1</td><td>0</td></tr> </table>	B	C	0	1	1	0	74LS04	<b>YES</b>  $C = B$	<table border="1"> <tr><td>B</td><td>C</td></tr> <tr><td>0</td><td>0</td></tr> <tr><td>1</td><td>1</td></tr> </table>	B	C	0	0	1	1	7407																		
B	C																																		
0	1																																		
1	0																																		
B	C																																		
0	0																																		
1	1																																		



Transistor	1	2	3
2N2222	E	B	C
2N2222A	E	B	C
BC547	C	B	E
BC548	C	B	E
2N3904	E	B	C
IRF530	G	D	S
LM35	V	S	T



Datasheets



Propiedad de: