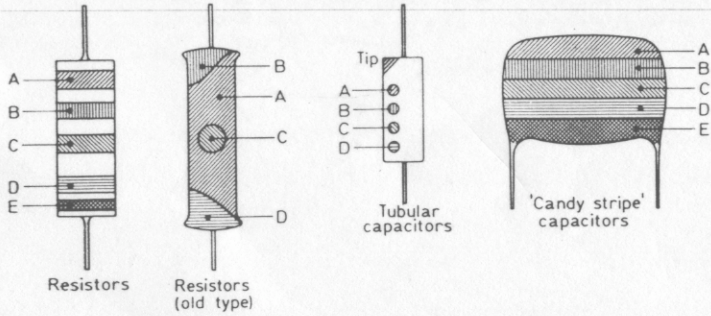


RESISTOR & CAPACITOR IDENTIFICATION CHART

Resistor & Capacitor colour coding



Preferred values

E12 Series

1.0	1.2	1.5	1.8	2.2	2.7
3.3	3.9	4.7	5.6	6.8	8.2

and their decades.

E24 Series

1.0	1.1	1.2	1.3	1.5	1.6
1.8	2.0	2.2	2.4	2.7	3.0
3.3	3.6	3.9	4.3	4.7	5.1
5.6	6.2	6.8	7.5	8.2	9.1

and their decades.

Resistor & Capacitor letter & digit code (BS1852)

Resistor values are indicated as follows:

0.47Ω	marked	R47	100Ω	marked	100R
1Ω	marked	1R0	1kΩ	marked	1K0
4.7Ω	marked	4R7	10kΩ	marked	10K
47Ω	marked	47R	10MΩ	marked	10M

A letter following the value shows the tolerance.

F = ±1%; G = ±2%; J = ±5%; K = ±10%; M = ±20%;
R33M = 0.33Ω ±20%; 6K8F = 6.8kΩ ±1%.

Capacitor values are indicated as:

0.68pF	marked	p68	6.8nf	marked	6n8
6.8pf	marked	6p8	1000nF	marked	1μ0
1000pF	marked	1n0	6.8μF	marked	6μ8

Tolerance is indicated by letters as for resistors. Values up to 999pF are marked in pF, from 1000pf to 999000pF (= 999nF) as nF (1000pF = 1nF) and from 1000nF (= 1μF) upwards as μF.

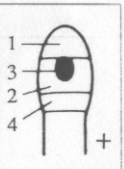
Some capacitors are marked with a code denoting the value in pF (first two figures) followed by a multiplier as a power of ten (3 = 10³). Letters denote tolerance as for resistors but C = ±0.25pf. E.g. 123J = 12pF x 10³ ±5% = 12000pF (or 0.12μF).

Resistor and Capacitor colour coding

Colour	Band A	Band B	Band C (multiplier)		Band D (tolerance)			Band E	
			Resistors	Capacitors	Resistors	Capacitor	Polyester	Resistors	Capacitors
Black	—	0	1	1	—	2pF	±20%	—	—
Brown	1	1	10	10	±1%	0.1pF	±1%	—	—
Red	2	2	100	100	±2%	—	±2%	250vW	—
Orange	3	3	1,000	1,000	—	—	±2.5%	—	—
Yellow	4	4	10,000	10,000	—	—	—	—	—
Green	5	5	100,000	—	—	0.5pF	±5%	—	—
Blue	6	6	1,000,000	—	—	—	—	—	—
Violet	7	7	10,000,000	—	—	—	—	—	—
Grey	8	8	10 ⁸	0.01μF	—	0.25pF	—	—	—
White	9	9	10 ⁹	0 ¹ μF	—	1pF	±10%	—	—
Silver	—	—	0.01	—	±10%	—	—	—	—
Gold	—	—	0.1	—	±5%	—	—	—	—
Pink	—	—	—	—	—	—	—	—	Hi-Stab.
None	—	—	—	—	±20%	—	—	—	—

Tantalum Capacitors

1 2 3 4				1 2 3 4					
Black	—	0	x1	10V	Green	5	5	—	16V
Brown	1	1	x10		Blue	6	6	—	20V
Red	2	2	x100		Violet	7	7	—	
Orange	3	3	—	6.3V	Grey	8	8	x0.01	25V
Yellow	4	4	—	6.3V	White	9	9	x0.1	3V (Pink 35V)



Reactance of Capacitors at spot frequencies.

Capacitance	50Hz 100Hz 1kHz 10kHz 100kHz 1MHz 10MHz 100MHz								Reactance of Inductors at spot frequencies.								
	50Hz	100Hz	1kHz	10kHz	100kHz	1MHz	10MHz	100MHz	50Hz	100Hz	1kHz	10kHz	100kHz	1MHz	10MHz	100MHz	
1pF	—	—	—	—	1.6M	160k	16k	1.6k	1μH	—	—	—	—	0.63	6.3	63	630
10pF	—	—	—	—	1.6M	160k	16k	1.6k	5μH	—	—	—	0.31	3.1	31	310	3.1k
50pF	—	—	—	—	3.2M	320k	32k	3.2k	32	—	—	—	0.63	6.3	63	630	6.3k
250pF	—	—	—	—	6.4M	640k	64k	6.4k	64	—	—	—	0.31	3.1	31	310	3.1k
1,000pF	3.2M	1.6M	160k	16k	1.6k	160	16	1.6	100μH	—	—	—	0.63	6.3	63	630	6.3k
2,000pF	1.6M	800k	80k	8k	800	80	8	0.8	250μH	—	—	—	1.6	16	160	1.6k	16k
0.01μF	320k	160k	16k	1.6k	160	16	1.6	0.16	1mH	0.31	0.63	6.3	63	630	6.3k	63k	630k
0.05μF	64k	32k	3.2k	320	32	3.2	0.32	—	2.5mH	0.8	1.6	16	160	1.6k	16k	160k	1.6M
0.1μF	32k	16k	1.6k	160	16	1.6	0.16	—	10mH	3.1	6.3	63	630	6.3k	63k	630k	6.3M
1μF	3.2k	1.6k	160	16	1.6	0.16	—	—	25mH	8	16	160	1.6k	16k	160k	1.6M	—
2.5μF	1.3k	640	64	6.4	0.64	—	—	—	100mH	31	63	630	6.3k	63k	630k	6.3M	—
5μF	640	320	32	3.2	0.32	—	—	—	1H	310	630	6.3k	63k	630k	6.3M	—	—
10μF	320	160	16	1.6	0.16	—	—	—	5H	1.5k	3.1k	31k	310k	3.1M	—	—	—
30μF	107	53	5.3	0.53	—	—	—	—	10H	3.1k	6.3k	63k	630k	6.3M	—	—	—
100μF	32	16	1.6	0.16	—	—	—	—	100H	31k	63k	630k	6.3M	—	—	—	—
1,000μF	3.2	1.6	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Values above 10MΩ and below 0.1Ω not shown. Values in Ω.