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SMD (Surface Mount Device) / SMT (Surface Mount Technology)

Here's a view on common SMDs (Surface Mount Devices).
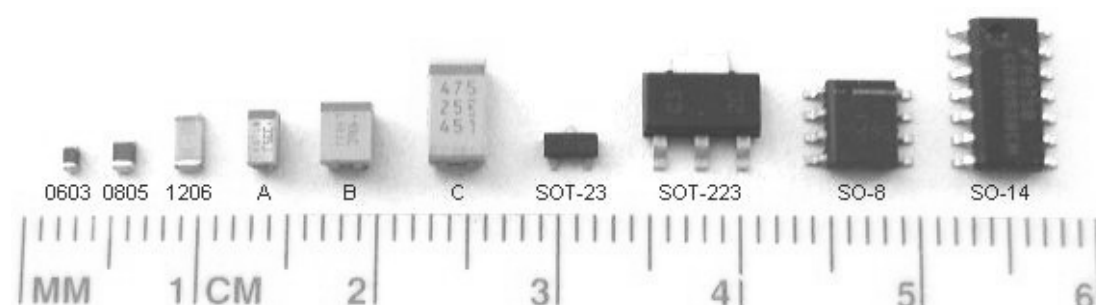
SMD resistors

SMD resistors come into several possible case sizes. Each size is described as a 4 digits number. The first 2 digits indicate the length; the last 2 indicate the width (in 0.01", or 10 mils units).

For example, the three most popular sizes are:

- 0603: means 0.06"x0.03", or 60x30 mils, or 1.6x0.8mm
- 0805: means 0.08"x0.05"
- 1206: means 0.12"x0.06"

SMD capacitors

Capacitors from 1pF to 1uF are available in the same sizes, 0603 to 1206.
The most popular technology is ceramic.

SMD Tantalum capacitors

Tantalum capacitors are the technology of choice for 1uF and higher values.
Case sizes are indicated by a letter from "A" to "E".

Case	L x W x H (mm)
A	3.2x1.6x1.6
B	3.5x2.8x1.9
C	6.0x3.2x2.5
D	7.3x4.3x2.8
E	7.3x6.0x3.6

Tantalum capacitors are polarized; a bar on the case indicates the positive side.

SMD transistors

The most popular size for small-signal transistor is called "SOT-23".
The second most popular is "SOT-223".

SMD Integrated Circuits ("ICs")

The two most popular sizes are "SO-8" and "SO-14" (also named "SOIC-8" and