SMD Size Code Chart (2025 Edition)

Resistor & Capacitor Dimensions, Power Ratings, and Application Guidelines
By Unit Circuits

SMD Package Size Reference (Imperial ↔ Metric)

SMD Code (Imperial)	Metric Code	Dimensions (mm)	Typical Applications
0201	0603	0.6 × 0.3	Ultra-compact electronics
0402	1005	1.0 × 0.5	Mobile devices (phones/tablets)
0603	1608	1.6 × 0.8	General-purpose applications
0805	2012	2.0 × 1.25	Power control & signal lines
1206	3216	3.2 × 1.6	Industrial & automotive systems

Power Handling Capabilities

SMD Size	Typical Power Rating	Max Operating Voltage	Remarks
0402	0.063W	<50V	For low current applications
0603	0.10W	<100V	Most versatile for general use
0805	0.125–0.25W	<150V	Ideal for moderate power designs
1206	0.25–0.50W	<200V	Suited for high power or heat

Application Guide – 0603 vs 0805 Comparison

Choosing Between 0603 and 0805 Packages

Feature	0603	0805
Size	Smaller footprint	Larger footprint
Solderability	More challenging	Easier to hand-solder
Power Handling	Lower capacity	Higher capacity
PCB Density	Higher component density	Lower component density
Cost	Slightly lower cost	Slightly higher cost

Design Tip:
Use **0603** when PCB space is limited and for automated high-density layouts.
Use **0805** when manual assembly, thermal dissipation, or mechanical durability is important.

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