

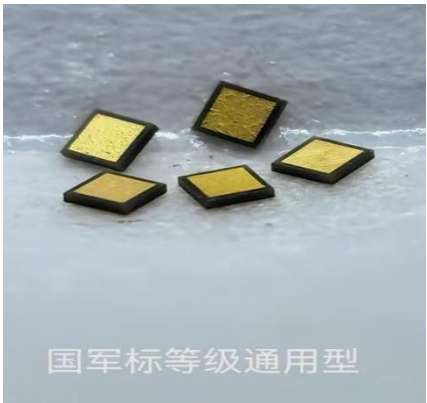
National Military Standard General-Purpose Microwave Ceramic Chip Capacitors

I. Applications

Mainly used in microwave integrated circuits (MICs) for DC blocking, RF bypass, source bypass, and impedance matching.

II. Features

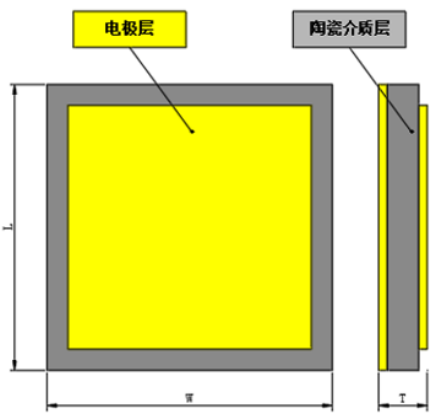
- General specification: GJB2442-2021;
- Detail specification: ZZR-Q/TJKJ20007-2019, CTK1101SG general-purpose single-layer chip ceramic fixed capacitor with failure-rate level;
- Standard number: JLCH61020094;
- Excellent microwave performance; applicable frequency: 100 kHz~100 GHz;
- Surface gold electrodes, suitable for gold-wire and gold-ribbon bonding.



III. Part Numbering Rules

① – ② – ③ – ④ – ⑤ – ⑥ – ⑦ – ⑧ – ⑨ – ⑩ – ⑪

- ① indicates certification mark.
- ② indicates product series and structure; for example, CTK1101SG is general-purpose and CTK1101SA is array type.
- ③ indicates dimensions: 30 indicates a microwave ceramic chip capacitor whose width uses size code 30; see the size-code table for other codes.



Product Model	length (mm)	width (mm)	thickness (mm)	margin (mm)
CTK1101SG25	0.635±0.127	0.635±0.127	0.150±0.030	0.050±0.025

④ indicates temperature coefficient/temperature characteristic: see the dielectric coding rule table (page 4).

⑤ indicates rated voltage: directly marked in volts (V).

⑥ indicates nominal capacitance: nominal capacitance is marked in picofarads (pF) with a three-digit code. The first two digits are significant figures, and the last digit indicates the number of zeros. When nominal capacitance is below 10 pF, the letter "R" indicates the decimal point: digits before R are the integer part and digits after R are the decimal part. For example, "1R0" indicates 1.0 pF, "4R7" indicates 4.7 pF, and "R75" indicates 0.75 pF.

⑦ indicates capacitance tolerance: K: $\pm 10\%$; M: $\pm 20\%$.

⑧ indicates electrode configuration: B = single-side margin.

⑨ indicates metal film stack: P = TiW/Ni/Au.

⑩ indicates failure-rate level: M represents a 1.0%/1000 h failure-rate level.

⑪ indicates the number of electrode segments.

IV. Representative Models of National Military Standard General-Purpose Microwave Ceramic Chip Capacitors

Model Specification	nominal capacitance (pF)	allowable deviation (code)	Features	rated voltage (V)
CTK1101SG25	60	K, M	BY	50
CTK1101SG25	62	K, M	BY	50
CTK1101SG25	68	K, M	BY	50
CTK1101SG25	75	K, M	BY	50
CTK1101SG25	82	K, M	BY	50
CTK1101SG25	91	K, M	BY	50
CTK1101SG25	100	K, M	BY	50
CTK1101SG25	110	K, M	BY	50
CTK1101SG25	120	K, M	BY	50