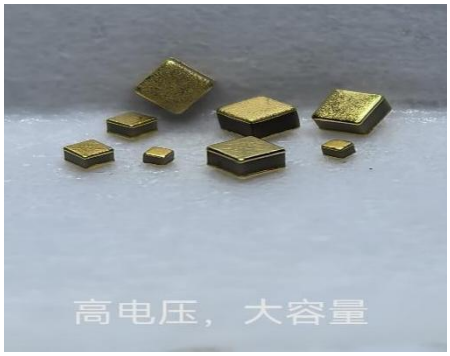
High-Voltage, High-Capacitance Microwave Ceramic Chip Capacitors

I. Applications

mainly used inhigh-voltage filtering, bypass etc..



II. Features

- Small size and high capacitance (1 nF~10 μF);
- Good capacitance temperature coefficient;
- High operating voltage (up to 100 V).

III. Part Numbering Rules

QJ – CT1101SV – 35 – BY – 50V – 103 – M – C – C

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

① indicates quality grade: QJ is enterprise military grade; J is general military grade; G is Seven-Special grade; no code indicates industrial grade.

② indicates product model and structure: CC1101SV indicates a Class 1 high-voltage, high-capacitance capacitor; CT1101SV indicates a Class 2 ceramic high-voltage, high-capacitance capacitor.

③ indicates dimensions: 35 indicates a microwave ceramic chip capacitor whose length and width use size code 35; see the size-code table for other codes.

Dimensions Code	outline dimensions (mm)			
	L	W	T	
			center value ()	Tolerance
15	0.381±0.076	0.381±0.076	0.30	±0.076
20	0.508±0.076	0.508±0.076	0.34	±0.076
25	0.635±0.102	0.635±0.102	0.40	±0.076
30	0.762±0.102	0.762±0.102	0.50	±0.102
35	0.889±0.127	0.889±0.127	0.500 ~ 0.700	±0.102
40	1.01±0.15	1.01±0.15	0.650 ~ 0.750	±0.102
50	1.27±0.15	1.27±0.15	0.800 ~ 1.300	±0.102
60	1.52±0.254	1.52±0.254	1.100 ~ 1.400	±0.127
70	1.780±0.254	1.780±0.254	1.500 ~ 2.000	±0.127
90	2.29±0.254	2.29±0.254	2.000 ~ 3.000	±0.127
100	2.54±0.254	2.54±0.254	3.000 ~ 4.000	±0.152

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: A: ±0.05 pF; B: ±0.1 pF; C: ±0.25 pF; D: ±0.5 pF; F: ±1.0%; G: ±2.0%; J: ±5.0%; K: ±10%; L: ±15%; M: ±20%; S: -20%~+50%; Z: -20%~+80%.

⑧ indicates electrode configuration: C = no margin on either side.

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

IV. Typical Products

Product Code	Capacitance	Dielectric Loss	Rated Voltage (V)
CT1101SV-15-BY-100V-102-M-C-C	1.0±20% nF	≤2.5%	100
CT1101SV-20-BY-50V-682-M-C-C	6.8±20% nF	≤10.0%	50
CT1101SV-25-BY-150V-801-M-C-C	0.8±20% nF	≤10.0%	150
CT1101SV-25-BY-25V-223-M-C-C	22±20% nF	≤10.0%	25
CT1101SV-30-BY-100V-102-M-C-C	1.0±20% nF	≤2.5%	100
CT1101SV-30-BY-100V-104-M-C-C	100±20% nF	≤10.0%	100
CT1101SV-35-BY-50V-153-M-C-C	15.0±20% nF	≤10.0%	50
CT1101SV-35-BY-50V-124-M-C-C	120±20% nF	≤10.0%	50
CT1101SV-40-BY-100V-273-M-C-C	27±20% nF	≤10.0%	100
CT1101SV-40-BY-6.3V-105-M-C-C	1.0±20% μF	≤10.0%	6.3
CT1101SV-50-BY-100V-473-M-C-C	47.0±20% nF	≤5.0%	100
CT1101SV-50-BY-100V-224-M-C-C	220±20% nF	≤10.0%	100
CT1101SV-60-BY-100V-683-M-C-C	68±20% nF	≤10.0%	100
CT1101SV-75-BY-100V-474-M-C-C	470±20% nF	≤10.0%	100
CT1101SV-80-BY-100V-105-M-C-C	1.0±20% μF	≤10.0%	100

Note: insulation resistance (25°C) is >=100 GΩ or 1000 MΩ·μF, whichever is smaller.