TDK

General Multilayer Ceramic Chip Capacitors
C Series

FEATURES

- High capacitance has been achieved through precision technologies that enable the use of multiple thinner ceramic dielectric layers.
- A monolithic structure ensures superior mechanical strength and reliability.
- High-accuracy automatic mounting is facilitated through the maintenance of very precise dimensional tolerances.
- Composed of only ceramics and metals, these capacitors provide extremely dependable performance, exhibiting virtually no degradation even when subjected to temperature extremes.
- Low stray capacitance ensures high conformity with nominal values, thereby simplifying the circuit design process.
- Low residual inductance assures superior frequency characteristics.
- Because electrostatic capacity has been obtained up to the electrolytic capacitor range, these capacitors offer long service life and are optimally suited for power supply designs that require high levels of reliability.
- Owing to their low ESR and excellent frequency characteristics, these products are optimally suited for high frequency and high-density type power supplies.

PRODUCT IDENTIFICATION

C	0603	CH	1H	100	D	□
(1)	(2)	(3)	(4)	(5)	(6)	(7)

(1) Series name

(2) Dimensions L×W

0603	0.6×0.3mm
1005	1.0×0.5mm
1608	1.6×0.8mm
2012	2.0×1.25mm
3216	3.2×1.6mm
3225	3.2×2.5mm
4532	4.5×3.2mm
5750	5.7×5.0mm

(3) Capacitance temperature characteristics

Class 1 (Temperature compensation)

Temperature characteristics	Capacitance change	Temperature range
CH	0±60ppm/°C	–25 to +85°C
C0G	0±30ppm/°C	–55 to +125°C
SL	+350 to –1000ppm/°C	+20 to +85°C

Class 2

Temperature characteristics	Capacitance change	Temperature range
B(JB*)	±10%	–25 to +85°C
F(JF*)	+30, –80%	–25 to +85°C
X7R	±15%	–55 to +125°C
X5R	±15%	–55 to +85°C
Y5V	+22, –82%	–30 to +85°C

*JB(JIS: BJ), JF(JIS: FJ)

(4) Rated voltage Edc

0J	6.3V
1A	10V
1C	16V
1E	25V
1H	50V

(5) Nominal capacitance

The capacitance is expressed in three digit codes and in units of pico farads (pF).

The first and second digits identify the first and second significant figures of the capacitance.

The third digit identifies the multiplier.

R designates a decimal point.

010	1pF
100	10pF
102	1,000pF
0R5	0.5pF

(6) Capacitance tolerance

Symbol	Tolerance	Applicable capacitance range
C	±0.25pF	10pF or less
D	±0.5pF	
J	±5%	Over 10pF
K	±10%	
M	±20%	
Z	+80, –20%	

(7) Packaging style

T	Taping (reel)
B	Bulk