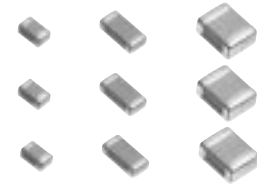


### Multilayer Ceramic Chip Capacitors (Low Profile Type)

Series: **ECJ**



#### ■ Features

- Thin thickness and large capacitance multilayer ceramic chip capacitor by Panasonic creative material technology and high accuracy layer technology.
- For small and tin size electronic equipment

#### ■ Recommended Applications

- For slim type HDD, DVD/CD-RW For LCD drive circuit

#### ■ Precaution for Handling

See Page 51 to 57

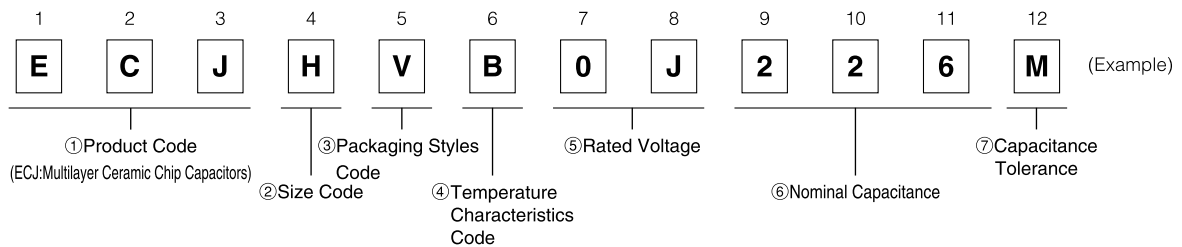
#### ■ Packaging method

See Page 96

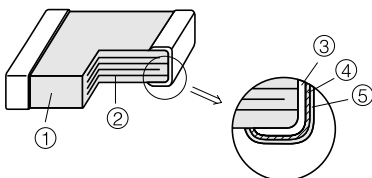
#### ■ Discontinued / Revise Part Numbers

See Page 58

#### ■ Explanation of Part Numbers

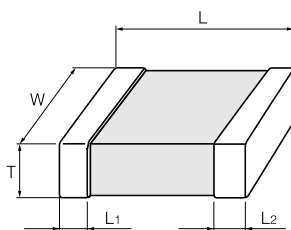


#### ■ Construction



No	Name	
①	Ceramic dielectric	
②	Internal electrode	
③	Terminal electrode	Substrate electrode
④		Intermediate electrode
⑤		External electrode

#### ■ Dimensions in mm (not to scale)



Unit : mm					
Code	Size Code (EIA)	L	W	T	L1, L2
G	Type "12" (0805)	2.00±0.15	1.25±0.15	0.85±0.10	0.50±0.25
		2.0±0.2*	1.25±0.20*		
H	Type "13" (1206)	3.2±0.2	1.6±0.2	0.85±0.10	0.6±0.3
9	Type "23" (1210)	3.2±0.3	2.5±0.2	0.85±0.10	0.6±0.3

\* ECJGV B0J106□ : "L" "W" Dimension Tolerance ±0.2 mm

### ■ Packaging Styles and Standard Packaging Quantity

Code	Packaging Styles		Quantity	T Thickness mm		
				Type"12" (0805) T=0.85	Type"13" (1206) T=0.85	Type"23" (1210) T=0.85
V	φ180reel	Paper taping (Pitch : 4 mm)	pcs./reel	4,000	4,000	—
F		Embossed taping (Pitch : 4 mm)		—	—	3,000

### ■ Temperature Characteristics

Code	Temp. Char.	Capacitance Change	Measurement Temperature Range	Reference Temperature
B	X5R	±15 %	-55 to 85 °C	25 °C

### ■ Rated Voltage

Code	1E	1C	1A	0J
Rated Voltage	DC25 V	DC16 V	DC10 V	DC6.3 V

### ■ Nominal Capacitance

Code	104	105	106
Nominal Capacitance	100,000 pF (0.1μF)	1,000,000 pF (1μF)	10,000,000 pF (10μF)

### ■ Capacitance Tolerance

Class	Temp. Char.	Tolerance Code	Capacitance Tolerance
2	X5R	K	±10 %
		M	±20 %

### ■ Specifications and Test Method

Item	Specifications	Test Method		
Operating Temperature Range	-55 to 85 °C	—		
Dielectric Withstanding Voltage	No break down	Test voltage:Rated voltage x250% Duration : 1 to 5s. Charge/discharge current: Within 50 mA		
Insulation Resistance (IR)	500/C (MΩ) min. Note : DC10V, DC 6.3 V ; 100/C (MΩ) min. (C: Nominal capacitance in μF)	Measuring voltage : Rated voltage Duration : 60 ± 5s Charge/discharge current : Within 50 mA		
Capacitance	Within the specified tolerance	Measuring temperature : 20 ± 2°C Pretreatment : The capacitors shall be kept in a temperature of 150+0/-10°C for 1 hour and then shall be stored in a room temperature for 48 ± 4 hours, before initial measurement.		
Dissipation Factor (tan δ)	0.2 max. Please confirmation to the technical reports for details.	Normal capacitance	C≤10 μF	C>10 μF
		Measuring frequency	1 kHz ± 10%	120 Hz ± 20%
		Measuring voltage	1.0 ± 0.2 Vrms	0.5 ± 0.2 Vrms

\* Standard condition : Temperature 15 to 35 °C, Relative humidity 45 to 75%

Note : Refer to the technical specifications for the details of items other than the above.

### ■ Standard Products for Type "12" (EIA "0805"), Taped Version

Code		B					
Capacitance (μF)	Rated voltage	DC16V			DC6.3V		
	Capacitance	Part No.	Dim T (mm)	Temp.Char. X5R	Part No.	Dim T (mm)	Temp.Char. X5R
	Tolerance						
1	±10%(K)	ECJGVB1C105□	0.85	○			
2.2							ECJGVB0J225□
4.7	or ±20%(M)				ECJGVB0J475□	0.85	○
10					ECJGVB0J106□*	0.85	○

Capacitance tolerance code : "□" for "K" or "M".

Packaging style code : "V" for taped version. (φ 180 reel, taping pitch : 4mm)

\*:"L", "W" Dimension tolerance ±0.2 mm

Do not use the flow soldering.

### ■ Standard Products for Type "13" (EIA "1206"), Taped Version

Code		B								
Capacitance (μF)	Rated voltage	DC16V			DC10V			DC6.3V		
	Capacitance	Part No.	Dim T (mm)	Temp.Char. X5R	Part No.	Dim T (mm)	Temp.Char. X5R	Part No.	Dim T (mm)	Temp.Char. X5R
	Tolerance									
2.2	±10%(K)				ECJHVB1A225□	0.85	○			
4.7								ECJHVB0J475□	0.85	○
10	or ±20%(M)	Under development	0.85	○				ECJHVB0J106M	0.85	○
22								ECJHVB0J226M	0.85	○

Capacitance tolerance code : "□" for "K" or "M".

Packaging style code : "V" for taped version. (φ 180 reel, taping pitch : 4mm)

Do not use the flow soldering.

### ■ Standard Products for Type "23" (EIA "1210"), Taped Version

Code		B		
Capacitance (μF)	Rated voltage	DC16V		
	Capacitance	Part No.	Dim T (mm)	Temp.Char. X5R
	Tolerance			
10	±20%(M)	ECJ9FB1C106M	0.85	○
22		Under development	0.85	○

Packaging style code : "V" and "Y" for taped version. (φ 180 reel, taping pitch : 4mm)

Soldering method of dimension T>1mm : Do not use the flow soldering.