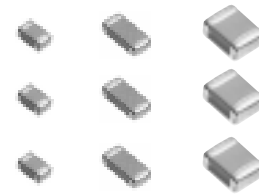


Multilayer Ceramic Chip Capacitors (Low Profile Type)

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

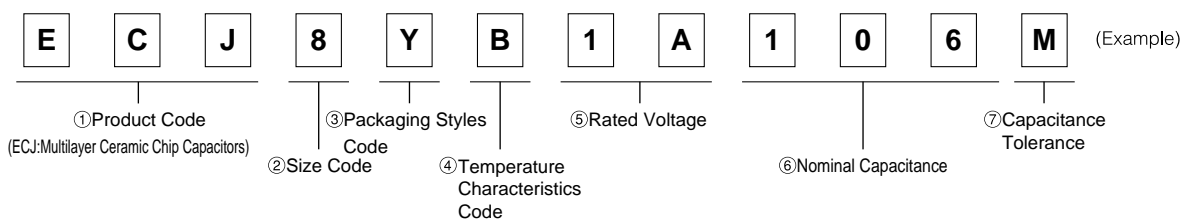
■ Precaution for Handling

See Page 44 to 48

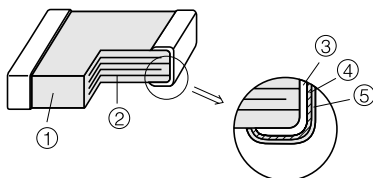
■ Packaging method

See Page 82

■ Explanation of Part Numbers

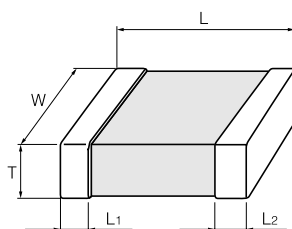


■ Construction



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
H	Type "13" (1206)	3.2±0.2	1.6±0.2	0.85±0.10	0.6±0.3
8	Type "23" (1210)	3.2±0.3	2.5±0.3	1.4±0.2	0.6±0.3

■ Packaging Styles and Standard Packaging Quantity

T : Thickness(mm)

Code	Packaging Styles		Quantity	Type"12" (0805)	Type"13" (1206)	Type"23" (1210)
				T=0.85	T=0.85	T=1.4
V	φ180reel	Paper Taping (Pitch : 4 mm)	pcs./reel	4,000	4,000	—
Y		Embossed Taping (Pitch : 4 mm)		—	—	2,000

■ 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
Rated Voltage	DC25 V	DC16 V	DC10 V

■ Nominal Capacitance

Code	104	105	106
Nominal Capacitance	100000 pF (0.1μF)	1000000 pF (1μF)	10000000 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% Electrification time: 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 Measuring voltage time : 60 ± 5s Charge/discharge current : Within 50 mA
Capacitance	Within the specified tolerance	Reference 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)	0.05 max. Note :Type "12" DC 6.3V ; 0.1 max.	Measuring Freq. :1kHz ± 10% Measuring voltage :1.0 ± 0.2Vrms

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

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

Capacitance (μF)	Code	B					
		DC16V			DC6.3V		
		Rated voltage	Part No.	Dim T (mm)	Temp.Char. X5R	Part No.	Dim T (mm)
1	±10%(K)	ECJGVB1C105□	0.85	○			
1.5	or				ECJGVB0J155□	0.85	○
2.2	±20%(M)				ECJGVB0J225□	0.85	○

□: Capacitance Tolerance Code.

Packaging Style Code : "V" for Taped Version. (φ 180 reel, Taping pitch : 4mm)

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

Capacitance (μF)	Code	B					
		DC10V			DC6.3V		
		Rated voltage	Part No.	Dim T (mm)	Temp.Char. X5R	Part No.	Dim T (mm)
2.2	±10%(K)	ECJHVB1A225□	0.85	○			
3.3	or				ECJHVB0J335□	0.85	○
4.7	±20%(M)				ECJHVB0J475□	0.85	○

□: Capacitance Tolerance Code.

Packaging Style Code : "V" for Taped Version. (φ 180 reel, Taping pitch : 4mm)

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

Capacitance (μF)	Code	B					
		DC25V		DC16V		DC10V	
		Rated voltage	Part No.	Dim T (mm)	Temp.Char. X5R	Part No.	Dim T (mm)
2.2	±10%(K)	ECJ8YB1E225□	1.4	○			
4.7	or				ECJ8YB1C475□	1.4	○
10	±20%(M)				ECJ8YB1A106M	1.4	○

□: Capacitance Tolerance Code. Packaging Style Code : "Y" for Taped Version. (φ 180 reel, Taping pitch : 4mm)

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

Design, Specifications are subject to change without notice. Ask factory for technical specifications before purchase and/or use. Whenever a doubt about safety arises from this product, please inform us immediately for technical consultation without fail.