

阅读申明

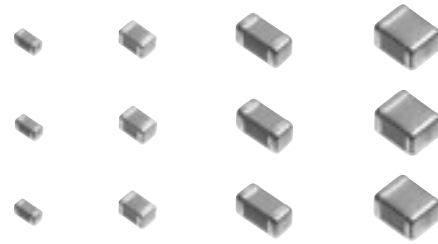
- 1.本站收集的数据手册和产品资料都来自互联网，版权归原作者所有。如读者和版权方有任何异议请及时告之，我们将妥善解决。
- 2.本站提供的中文数据手册是英文数据手册的中文翻译，其目的是协助用户阅读，该译文无法自动跟随原稿更新，同时也可能存在翻译上的不当。建议读者以英文原稿为参考以便获得更精准的信息。
- 3.本站提供的产品资料，来自厂商的技术支持或者使用者的心得体会等，其内容可能存在描述上的差异，建议读者做出适当判断。
- 4.如需与我们联系，请发邮件到marketing@iczoom.com，主题请标有“数据手册”字样。

Read Statement

1. The datasheets and other product information on the site are all from network reference or other public materials, and the copyright belongs to the original author and original published source. If readers and copyright owners have any objections, please contact us and we will deal with it in a timely manner.
2. The Chinese datasheets provided on the website is a Chinese translation of the English datasheets. Its purpose is for reader's learning exchange only and do not involve commercial purposes. The translation cannot be automatically updated with the original manuscript, and there may also be improper translations. Readers are advised to use the English manuscript as a reference for more accurate information.
3. All product information provided on the website refer to solutions from manufacturers' technical support or users the contents may have differences in description, and readers are advised to take the original article as the standard.
4. If you have any questions, please contact us at marketing@iczoom.com and mark the subject with "Datasheets" .

Multilayer Ceramic Capacitors (High Capacitance)

Series: **ECJ**



■ Features

- Small size and high capacitance
- Low ESR/ESL and excellent high-frequency characteristics
- Ideal alternative to TANTALUM CHIP CAPACITORS and ALUMINUM ELECTROLYTIC CAPACITORS
- RoHS compliant

■ Recommended Applications

- **Class 2 (Hi-K Type)**
 - Power supply circuitry decoupling applications
 - DC-DC converter power supply circuitry of the high-speed LSI smoothing circuit

■ Handling Precautions

See Page 48 to 53

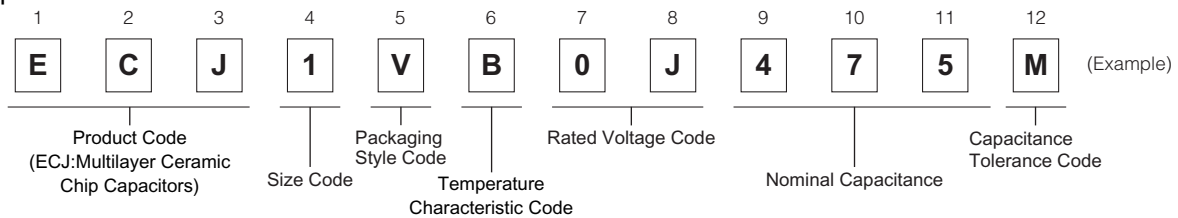
■ Packaging Specifications

See Page 45, 46, 56

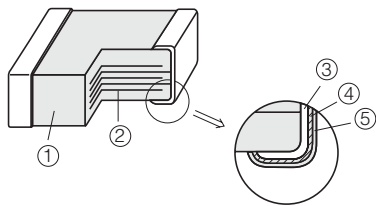
■ Discontinued / Revised Part Numbers, Alternative Part Numbers

See Page 54, 55

■ Explanation of Part Numbers

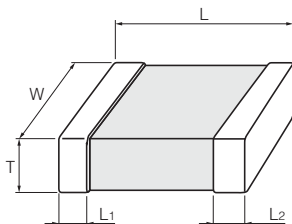


■ Construction



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)



Size Code	Size (EIA)	L	W	T	L ₁ , L ₂
0	0402	1.00±0.05	0.50±0.05	0.50±0.05	0.2±0.1
		1.00 ^{+0.15} _{-0.05}	0.50 ^{+0.15} _{-0.05}	0.50 ^{+0.15} _{-0.05}	
1	0603	1.6±0.1	0.8±0.1	0.8±0.1	0.3±0.2
		1.60±0.15	0.80±0.15	0.80±0.15	
2	0805	2.0±0.1	1.25±0.10	0.85±0.10	0.50±0.25
				1.25±0.10	
				1.25±0.15	
G		2.0±0.2	1.25±0.20	1.25±0.20	
3	1206	3.2±0.2	1.6±0.2	0.85±0.10	0.6±0.3
				1.15±0.10	
D				1.6±0.2	
M				0.85±0.10	
				1.15±0.10	

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.

02 Dec. 2008

■ Packaging Styles and Standard Packaging Quantities

Quantity : pcs./reel

Packaging Style Code	Packaging Styles	Size Thickness	0402	0603	0805		1206		
			T=0.5	T=0.8	T=0.85	T=1.25	T=0.85	T=1.15	T=1.6
E	φ180 reel	Paper taping (Pitch : 2 mm)	10,000	—	—	—	—	—	—
V		Paper taping (Pitch : 4 mm)	—	4,000	4,000	—	4,000	—	—
F		Embossed taping (Pitch : 4 mm)	—	—	—	3,000	—	3,000	—
Y			—	—	—	—	—	—	2,000

φ330 reel and Bulk case Type : Please contact us.

■ Temperature Characteristics

● Class 2

Temperature Characteristic Code	Temperature Characteristics	Capacitance Change	Measurement Temperature Range	Reference Temperature
B, X	B	±10 %	-25 to 85 °C	20 °C
	X7R	±15 %	-55 to 125 °C	25 °C
	X5R	±15 %	-55 to 85 °C	25 °C
F	F	+30, -80 %	-25 to 85 °C	20 °C
	Y5V	+22, -82 %	-30 to 85 °C	25 °C

For applicable "Temperature Characteristics", see the lists of standard products on page 6 to 7.

■ Rated Voltage

Code	1H	1E	1C	1A	0J
Rated Voltage	DC 50 V	DC 25 V	DC 16 V	DC 10 V	DC 6.3 V

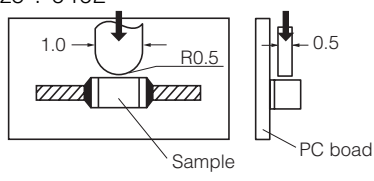
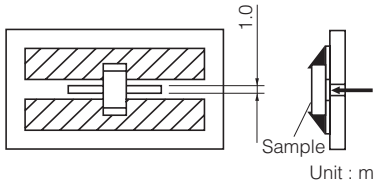
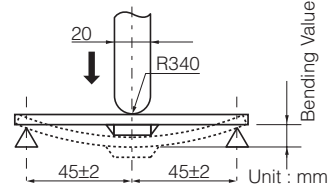
■ Nominal Capacitance

Ex.	105	225	106	226
Nominal Capacitance	1,000,000 pF (1 μF)	2,200,000 pF (2.2 μF)	10,000,000 pF (10 μF)	22,000,000 pF (22 μF)

■ Capacitance Tolerance

Class	Temperature Characteristics	Capacitance Tolerance Code	Capacitance Tolerance
2	B, X7R, X5R	K	±10 %
		M	±20 %
	F, Y5V	Z	+80, -20 %

■ Specifications and Testing Methods

Item	Specification	Test Method																														
Operating Temperature Range	Temp. Char. B, X7R : -55 to 125 °C Temp. Char. B, X5R : -55 to 85 °C Temp. Char. F, Y5V : -30 to 85 °C	—————																														
Dielectric Withstanding Voltage	No dielectric breakdown and/or damage	Test voltage : Rated voltage x250 % Duration:1 to 5 s. Charge / Discharge current: 50 mA max.																														
Insulation Resistance (I.R.)	500/C (MΩ) min. Note : 100/C(MΩ)min. for DC 10 V max. C : Nominal Cap. in μF	Measuring voltage : Rated voltage Duration : 60±5 s Charge / Discharge current: 50 mA max.																														
Capacitance	Within the specified tolerance	Measuring temperature: 20±2 °C Preconditioning: The capacitors shall be kept in temperature of 150 +0/-10 °C for 1 hour and subject to standard condition* 48±4 hours before initial measurement.																														
Dissipation Factor (tan δ)	0.2 max. Please see the technical specifications for details.																															
<table border="1"> <thead> <tr> <th>Nominal capacitance</th> <th>C≤10 μF</th> <th>C>10 μF</th> </tr> </thead> <tbody> <tr> <td>Measuring frequency</td> <td>1 kHz±10 %</td> <td>120 Hz±20 %</td> </tr> <tr> <td>Measuring voltage</td> <td>1.0±0.2 Vrms</td> <td>0.5±0.2 Vrms</td> </tr> </tbody> </table>			Nominal 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																					
Nominal 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																														
Temperature Characteristics	Temperature Characteristics B : ±10 % X7R : ±15 % X5R : ±15 % F : +30, -80 % Y5V : +22, -82 %	Maximum capacitance change at stages 1 to 5 <table border="1"> <thead> <tr> <th>Temp. Char.</th> <th>B, F</th> <th>X7R</th> <th>X5R</th> <th>Y5V</th> </tr> </thead> <tbody> <tr> <td>Stage 1</td> <td>20 °C</td> <td>25 °C</td> <td>25 °C</td> <td>25 °C</td> </tr> <tr> <td>Stage 2</td> <td>-25 °C</td> <td>-55 °C</td> <td>-55 °C</td> <td>-30 °C</td> </tr> <tr> <td>Stage 3 (Ref. Temp.)</td> <td>20 °C</td> <td>25 °C</td> <td>25 °C</td> <td>25 °C</td> </tr> <tr> <td>Stage 4</td> <td>85 °C</td> <td>125 °C</td> <td>85 °C</td> <td>85 °C</td> </tr> <tr> <td>Stage 5</td> <td>20 °C</td> <td>25 °C</td> <td>25 °C</td> <td>25 °C</td> </tr> </tbody> </table> See the technical specifications for details such as measuring voltage.	Temp. Char.	B, F	X7R	X5R	Y5V	Stage 1	20 °C	25 °C	25 °C	25 °C	Stage 2	-25 °C	-55 °C	-55 °C	-30 °C	Stage 3 (Ref. Temp.)	20 °C	25 °C	25 °C	25 °C	Stage 4	85 °C	125 °C	85 °C	85 °C	Stage 5	20 °C	25 °C	25 °C	25 °C
Temp. Char.	B, F	X7R	X5R	Y5V																												
Stage 1	20 °C	25 °C	25 °C	25 °C																												
Stage 2	-25 °C	-55 °C	-55 °C	-30 °C																												
Stage 3 (Ref. Temp.)	20 °C	25 °C	25 °C	25 °C																												
Stage 4	85 °C	125 °C	85 °C	85 °C																												
Stage 5	20 °C	25 °C	25 °C	25 °C																												
Adhesion	Terminal electrodes shall be free from peeling or signs of peeling.	Applied force : 5 N Duration : 10 s Size : 0402  Size : 0603 to 1206  Unit : mm																														
Bending Strength	Appearance: No mechanical damage Capacitance change: Temp. Char. B, X7R, X5R: within ±12.5 % F, Y5V: within ±30 %	Bending value :1 mm Bending speed : 1 mm/s  Unit : mm																														
Vibration Proof	Appearance : No mechanical damage. Capacitance : Within the specified tolerance tanδ : Initial standard value	Total amplitude : 1.5 mm Vibration frequency : 10 to 55 to 10 Hz for 1 min 3 perpendicular directions for 2 hours each, a total of 6 hours																														

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

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use.
Should a safety concern arise regarding this product, please be sure to contact us immediately.

02 Dec. 2008

Item	Specification	Test Method												
Resistance to Soldering Heat	Appearance : No mechanical damage Capacitance change : Temp. Char. B, X7R, X5R : within ± 7.5 % F, Y5V : within ± 20 % $\tan\delta$: Initial standard value IR : Initial standard value Withstand voltage : No dielectric breakdown or damage	Soldering bath method Preconditioning : Heat treatment ^(*1) Solder temperature : 270 ± 5 °C Dipping period : 3.0 ± 0.5 s Preheat condition : <table border="1"> <thead> <tr> <th>Order</th> <th>Temp. (°C)</th> <th>Size 0805 max.</th> <th>Size 1206</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>80 to 100</td> <td>120 to 180s</td> <td>300 to 360s</td> </tr> <tr> <td>2</td> <td>150 to 200</td> <td>120 to 180s</td> <td>300 to 360s</td> </tr> </tbody> </table> Recovery (Standard condition) : 48 ± 4 h	Order	Temp. (°C)	Size 0805 max.	Size 1206	1	80 to 100	120 to 180s	300 to 360s	2	150 to 200	120 to 180s	300 to 360s
Order	Temp. (°C)	Size 0805 max.	Size 1206											
1	80 to 100	120 to 180s	300 to 360s											
2	150 to 200	120 to 180s	300 to 360s											
Solderability	More than 95 % of the soldered area of both terminal electrodes shall be covered with fresh solder.	Soldering bath method Solder temperature : 230 ± 5 °C Dipping period : 4 ± 1 s Solder : H63A (JIS-Z-3282)												
Temperature Cycle	Appearance : No mechanical damage Capacitance change : Temp. Char. B, X7R, X5R : within ± 7.5 % F, Y5V : within ± 20 % $\tan\delta$: Initial standard value IR : Initial standard value Withstand voltage : No dielectric breakdown and/or damage	Preconditioning : Heat treatment ^(*1) Step 1: Minimum operating temp. 30 ± 3 min Step 2: Room temp. 3 min max. Step 3: Maximum operating temp. 30 ± 3 min Step 4: Room temp. 3 min max. Number of cycles : 5 cycles Recovery(Standard condition) : 48 ± 4 h												
Damp Heat (steady state)	Appearance : No mechanical damage Capacitance change : Temp. Char. B, X7R, X5R : within ± 20 % F, Y5V : within ± 30 % $\tan\delta$: Temp. Char. B, X7R, X5R : 0.25 max. F, Y5V : 0.3 max. IR : $50/C$ (M Ω) min. Note : $10/C$ (M Ω) min. for rated vol. DC 10 V max. C:Nominal cap. in μ F Please see the technical specifications for details.	Preconditioning : Heat treatment ^(*1) Temperature : 40 ± 2 °C Relative humidity : 90 to 95 % Test period : 500+24/0 h Recovery(Standard condition) : 48 ± 4 h												
Damp Heat Load	Appearance : No mechanical damage Capacitance change : Temp. Char. B, X7R, X5R : within ± 20 % F, Y5V : within ± 30 % $\tan\delta$: Temp. Char. B, X7R, X5R : 0.25 max. F, Y5V : 0.3 max. IR : $25/C$ (M Ω) min. Note : $5/C$ (M Ω) min. for rated vol. DC 10 V max. C:Nominal cap. in μ F Please see the technical specifications for details.	Preconditioning : Voltage treatment ^(*2) Temperature : 40 ± 2 °C Relative humidity : 90 to 95 % Applied voltage : Rated voltage Charge/discharge current : 50 mA max. Test period : 500+24/0 h Recovery(Standard condition) : 48 ± 4 h												
High Temperature Load	Appearance : no mechanical damage Capacitance change : Temp. Char. B, X7R, X5R : within ± 20 % F, Y5V : within ± 30 % $\tan\delta$: Temp. Char. B, X7R, X5R : 0.25 max. F, Y5V : 0.3 max. IR : $50/C$ (M Ω) min. Note : $10/C$ (M Ω) min. for rated vol. DC 10 V max. C:Nominal cap. in μ F Please see the technical specifications for details.	Preconditioning : Voltage treatment ^(*2) Temperature : Maximum operation temp. ± 3 °C Applied voltage : (1)Rated voltage $\times 200$ % (2)Rated voltage $\times 150$ % (3)Rated voltage $\times 100$ % Please see the technical specifications for details. Charge/discharge current : 50 mA max. Test period : 1000+48/0 h Recovery (Standard condition) : 48 ± 4 h												

(*1) Heat treatment : 1 h of heat treatment at $150 \pm 0/-10$ °C followed by 48 ± 4 h recovery under standard conditions.

(*2) Voltage treatment : 1 h of voltage treatment under the specified temperature and voltage for testing followed by 48 ± 4 h of recovery under standard conditions.

■ Standard Products for EIA Size "0402", Taped Version

● Class 2

◆ Temperature Characteristic Code : B (Temperature Characteristics : X5R)

Rated Voltage		DC 16 V			DC 10 V			DC 6.3 V		
Capacitance (μF)	Capacitance Tolerance	Part No.	Dim. T (mm)	Temp. Char. X5R	Part No.	Dim. T (mm)	Temp. Char. X5R	Part No.	Dim. T (mm)	Temp. Char. X5R
1	±10 %(K) or ±20 %(M)	ECJ0EB1C105M	0.5*	○	ECJ0EB1A105□	0.5	○	ECJ0EB0J105□	0.5	○
2.2								ECJ0EB0J225M	0.5	○
4.7								ECJ0EB0J475M	0.5*	○

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

Dimensional tolerance of L, W, T : ±0.05 mm for no mark, ± 0.05 mm for "*" mark.

Standard packaging quantity of Packaging Style Code "E" (T = 0.5 mm) : 10,000 pcs./reel.

Avoid flow soldering.

◆ Temperature Characteristic Code : F (Temperature Characteristics : F, Y5V)

Rated Voltage		DC 6.3 V		
Capacitance (μF)	Capacitance Tolerance	Part No.	Dim. T (mm)	Temp. Char. F Y5V
1	+80, -20 %(Z)	ECJ0EF0J105Z	0.5	○ ○

Standard packaging quantity of Packaging Style Code "E" (T = 0.5 mm) : 10,000 pcs./reel.

Recommend soldering method : Reflow soldering.

■ Standard Products for EIA Size "0603", Taped Version

● Class 2

◆ Temperature Characteristic Code : B (Temperature Characteristics : X5R)

Rated Voltage		DC 25 V			DC 16 V			DC 10 V			DC 6.3 V		
Capacitance (μF)	Capacitance Tolerance	Part No.	Dim. T (mm)	Temp. Char. X5R	Part No.	Dim. T (mm)	Temp. Char. X5R	Part No.	Dim. T (mm)	Temp. Char. X5R	Part No.	Dim. T (mm)	Temp. Char. X5R
1	±10 %(K) or ±20 %(M)	ECJ1VB1E105□	0.8	○	ECJ1VB1C105□	0.8	○	ECJ1VB1A105□	0.8	○	ECJ1VB0J105□	0.8	○
2.2					ECJ1VB1C225□*	0.8	○	ECJ1VB1A225□*	0.8	○	ECJ1VB0J225□	0.8	○
4.7					ECJ1VB1C475□*	0.8**	○	ECJ1VB1A475□*	0.8	○	ECJ1VB0J475□*	0.8	○
10								ECJ1VB1A106M*	0.8**	○	ECJ1VB0J106M*	0.8**	○

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

Standard packaging quantity of Packaging Style Code "V" (T = 0.8 mm) : 4,000 pcs./reel.

* : Avoid flow soldering.

** : "L", "W", "T" Dimension Tolerance ±0.15 mm

◆ Temperature Characteristic Code : F (Temperature Characteristics : F, Y5V)

Rated Voltage		DC 25 V			DC 16 V			DC 10 V			DC 6.3 V		
Capacitance (μF)	Capacitance Tolerance	Part No.	Dim. T (mm)	Temp. Char. F	Part No.	Dim. T (mm)	Temp. Char. F	Part No.	Dim. T (mm)	Temp. Char. F Y5V	Part No.	Dim. T (mm)	Temp. Char. F Y5V
1	+80,	ECJ1VF1E105Z	0.8	○	ECJ1VF1C105Z	0.8	○	ECJ1VF1A105Z	0.8	○ ○			
2.2	-20 %(Z)							ECJ1VF1A225Z	0.8	○ ○	ECJ1VF0J225Z	0.8	○ ○

Standard packaging quantity of Packaging Style Code "V" (T = 0.8 mm) : 4,000 pcs./reel.

■ Standard Products for EIA Size "0805", Taped Version

● Class 2

◆ Temperature Characteristic Code : B (Temperature Characteristics : B, X5R)

Rated Voltage		DC 25 V			DC 16 V			DC 10 V			DC 6.3 V		
Capacitance (μF)	Capacitance Tolerance	Part No.	Dim. T (mm)	Temp. Char. X5R	Part No.	Dim. T (mm)	Temp. Char. X5R	Part No.	Dim. T (mm)	Temp. Char. B X5R	Part No.	Dim. T (mm)	Temp. Char. X5R
1	±10 %(K) or ±20 %(M)	ECJ2FB1E105□	1.25*	○	ECJ2FB1C105□	1.25*	○	ECJ2FB1A105□	1.25	○ ○			
2.2					ECJ2FB1C225□	1.25*	○	ECJ2FB1A225□	1.25*	— ○	ECJ2FB0J225□	1.25	○
4.7			ECJ2FB1E475□	1.25*	○	ECJ2FB1C475□	1.25*	○	ECJ2FB1A475□	1.25*	— ○	ECJ2FB0J475□	1.25*
10					ECJ2FB1C106□	1.25**	○	ECJ2FB1A106□	1.25**	— ○	ECJ2FB0J106□	1.25**	○
22								ECJ2FB1A226M	1.25**	— ○	ECJ2FB0J226M	1.25**	○

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

Dimensional tolerance of L, W, T : L, W : ±0.1 mm for no mark, ±0.15 mm for "*" mark, ±0.2 mm for "**" mark.

Standard packaging quantity of Packaging Style Code "F" (T = 1.25 mm) : 3,000 pcs./reel.

Avoid flow soldering.

◆ Temperature Characteristic Code : F (Temperature Characteristics : F, Y5V)

Rated Voltage		DC 50 V			DC 16 V			DC 10 V			DC 10 V		
Capacitance (μF)	Capacitance Tolerance	Part No.	Dim. T (mm)	Temp. Char. F	Part No.	Dim. T (mm)	Temp. Char. F	Part No.	Dim. T (mm)	Temp. Char. F Y5V	Part No.	Dim. T (mm)	Temp. Char. F Y5V
1	+80, -20 %(Z)	ECJ2FF1H105Z	1.25*	○	ECJ2FF1E105Z	1.25*	○	ECJ2VF1C105Z	0.85	○ ○			
2.2					ECJ2FF1E225Z	1.25*	○	ECJGVF1C225Z	0.85	○ ○			
4.7								ECJGVF1C475Z	0.85	○ ○	ECJGVF1A475Z	0.85	○ ○
10											ECJ2FF1A106Z	1.25*	○ ○

Dimensional tolerance of L, W, T : L, W : ±0.15 mm / T : ±0.1 mm for no mark, ±0.15 mm for "*" mark.

Standard packaging quantity of Packaging Style Code "V" (T = 0.85 mm) : 4,000 pcs./reel, "F" (T = 1.25 mm) : 3,000 pcs./reel.

Soldering method of dimension T > 1 mm: Avoid flow soldering.

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use.
Should a safety concern arise regarding this product, please be sure to contact us immediately.

■ Standard Products for EIA Size "1206", Taped Version

● Class 2

◆ Temperature Characteristic Code : B (Temperature Characteristics : B, X7R, X5R)

Rated Voltage	DC 25 V				DC 16 V				DC 10 V				DC 6.3 V				
	Capacitance Tolerance	Part No.	Dim. T (mm)	Temp. Char. B X7R X5R	Part No.	Dim. T (mm)	Temp. Char. B X7R X5R	Part No.	Dim. T (mm)	Temp. Char. B X7R X5R	Part No.	Dim. T (mm)	Temp. Char. B X7R X5R	Part No.	Dim. T (mm)	Temp. Char. X5R	
1	±10 % (K) or ±20 % (M)	ECJ3YB1E105□	1.6	○ ○ ○	ECJ3FB1C105□	1.15*	○ ○ ○										
2.2		ECJ3YB1E225□	1.6	— — ○	ECJ3YB1C225□	1.6	○ ○ ○	ECJ3YB1A225□	1.6	○ ○ ○							
4.7		ECJ3YB1E475□	1.6	— — ○	ECJ3YB1C475□	1.6	— — ○	ECJ3YB1A475□	1.6	— — ○	ECJ3YB0J475□	1.6	— — ○				
10		ECJ3YB1E106□	1.6	— — ○	ECJ3YB1C106□	1.6	— — ○	ECJ3YB1A106□	1.6	— — ○	ECJDV50J106M	0.85**	— — ○				
22					ECJ3YB1C226M	1.6	— — ○	ECJ3YB1A226M	1.6	— — ○	ECJDV50J226M	0.85**	— — ○				

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

Dimensional tolerance of L, W, T: ±0.2 mm for no mark, L, W: ±0.15 mm / T: ±0.1 mm for "*" mark, L, W: ±0.2 mm / T: ±0.1 mm for "**" mark.

Standard packaging quantity of Packaging Style Code "V" (T = 0.85 mm) : 4,000 pcs./reel, "F" (T = 1.15 mm) : 3,000 pcs./reel, "Y" (T = 1.6 mm) : 2,000 pcs./reel

Avoid flow soldering.

◆ High Temperature Series : Temperature Characteristic Code : B, X (Temperature Characteristics : B, Y7R)

Rated Voltage	DC 50 V				DC 25 V				DC 16 V				DC 10 V				
	Capacitance Tolerance	Part No.	Dim. T (mm)	Temp. Char. B Y7R	Part No.	Dim. T (mm)	Temp. Char. B Y7R	Part No.	Dim. T (mm)	Temp. Char. B Y7R	Part No.	Dim. T (mm)	Temp. Char. B Y7R	Part No.	Dim. T (mm)	Temp. Char. B Y7R	
1	±10 % (K) or ±20 % (M)	ECJ3YX1H105□	1.6	○ ○ ○	ECJ3YB1E105□	1.6	○ ○ ○	ECJ3FB1C105□	1.15*	○ ○ ○							
2.2								ECJ3YB1C225□	1.6	○ ○ ○	ECJ3YB1A225□	1.6	○ ○ ○				
4.7								ECJ3YX1C475□	1.6	○ ○ ○							
10								ECJ3YX1C106□	1.6	○ ○ ○							

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

Dimensional tolerance of L, W, T: ±0.2 mm for no mark, L, W: ±0.15 mm / T: ±0.1 mm for "*" mark.

Standard packaging quantity of Packaging Style Code "F" (T = 1.15 mm) : 3,000 pcs./reel, "Y" (T = 1.6 mm) : 2,000 pcs./reel

Avoid flow soldering.

◆ Temperature Characteristic Code : F (Temperature Characteristics : F, Y5V)

Rated Voltage	DC 50 V				DC 25 V				DC 16 V				DC 10 V			
	Capacitance Tolerance	Part No.	Dim. T (mm)	Temp. Char. F	Part No.	Dim. T (mm)	Temp. Char. F Y5V	Part No.	Dim. T (mm)	Temp. Char. F Y5V	Part No.	Dim. T (mm)	Temp. Char. F Y5V	Part No.	Dim. T (mm)	Temp. Char. F Y5V
1	+80, -20 % (Z)	ECJ3FF1H105Z	1.15*	○	ECJ3FF1E105Z	1.15*	○ ○ ○	ECJ3VF1C105Z	0.85*	○ ○ ○						
2.2					ECJ3FF1E225Z	1.15*	○ ○ ○	ECJ3VF1C225Z	0.85*	○ ○ ○						
4.7					ECJ3FF1E475Z	1.15*	○ —	ECJ3FF1C475Z	1.15*	○ ○ ○						
10					ECJ3YF1E106Z	1.6	○ —	ECJMFF1C106Z	1.15**	○ ○ ○	ECJMFF1A106Z	1.15**	○ ○ ○			
22											ECJMFF1A226Z	1.15**	○ ○ ○			

Dimensional tolerance of L, W, T: ±0.2 mm for no mark, L, W: ±0.15 mm / T: ±0.1 mm for "*" mark, L, W: ±0.2 mm / T: ±0.1 mm for "**" mark.

Standard packaging quantity of Packaging Style Code "V" (T = 0.85 mm) : 4,000 pcs./reel, "F" (T = 1.15 mm) : 3,000 pcs./reel, "Y" (T = 1.6 mm) : 2,000 pcs./reel

Avoid flow soldering.