Multilayer Ceramic Capacitors (For General Electronic Equipment)

Series: **ECJ**

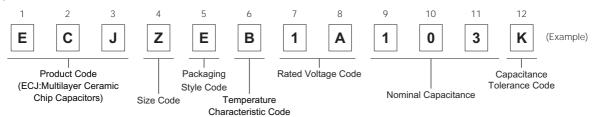
- Features
- Small size and wide capacitance range
- High humidity resistance and long life
- Excellent solderability and resistance to soldering heat
- Low inductance (ESL) and excellent frequency characteristics
- RoHS compliant

- Recommended Applications
- Class 1 (T.C. Type)
 Tuned circuits, and filter circuitry, where low loss and high stability of capacitance and high insulation resistance is required
- Class 2 (Hi-K Type)
 Coupling and By-passing

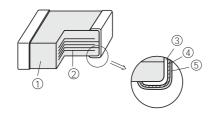
■ Handling Precautions See Page 49 to 54

■ Packaging Specifications See Page 46, 47, 58

■ Explanation of Part Numbers

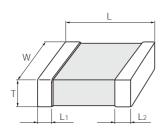


■ Construction



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

■ Dimensions in mm (not to scale)



Size Code	Size (EIA)	L	W	Т	L1, L2	
Z	0201	0.60 ± 0.03	0.30±0.03	0.30±0.03	0.15±0.05	
0	0402	1.00 ± 0.05	0.50 ± 0.05	0.50 ± 0.05	0.2±0.1	
1	0603	1.6 ± 0.1	0.8 ± 0.1	0.8 ± 0.1	0.3 ± 0.2	
	0805			0.6 ± 0.1	0.50±0.25	
2		2.0 ± 0.1	1.25 ± 0.10	0.85 ± 0.10		
2				1.25±0.10		
		2.00 ± 0.15	1.25±0.15	1.25±0.15		
				0.6 ± 0.1		
3	1206	3.20 ± 0.15	1.60 ± 0.15	0.85 ± 0.10	0.6+0.3	
3	1206			1.15±0.10	0.6±0.3	
		3.2±0.2	1.6±0.2	1.6±0.2		

■ Packaging Styles and Standard Packaging Quantity

- I ack	Quantity (Taping: pcs./reel, Bulk case: pcs./case											pcs./case)
Packaging		Size	0201	0402	0603	0805			1206			
Style Code	Packaging	Thickness (mm)	T=0.3	T=0.5	T=0.8	T=0.6	T=0.85	T=1.25	T=0.6	T=0.85	T=1.15	T=1.6
Е		Paper taping (Pitch: 2 mm)	15,000	10,000	_	_	_			_		_
V	<i>ф</i> 180	Paper taping (Pitch: 4 mm)	_	_	4,000	5,000	4,000	_	5,000	4,000	_	_
F	reel	Embossed taping	_	_	_	_	_	3,000	_	_	3,000	_
Υ		(Pitch: 4 mm)	_	_	_	_	_	ı	I	_		2,000
W	φ330	Paper taping (Pitch: 2 mm)	_	50,000	_	_	_	_	_	_	_	_
Z	reel*	Paper taping (Pitch: 4 mm)	_	_	10,000	20,000	10,000		20,000	10,000		_
C		Rulk case		50 000	15 000	10 000						

^{*} For Part Number applicable to ϕ 330 reel, please contact us.

■ Temperature Characteristics

Class 1

Temperature	Tomporatura			Toman Cooff	Rate of Cap	Rate of Capacitance change at each Temperature (%)				
Characteristic	Temperature Characteristics		Temp. Coeff. (ppm/°C)	-25	°C	85	°C			
Code	Characteristics			(ρριτί/ Ο)	max.	min.	max.	min.		
		>10 pF	CG	0± 30	0.33	-0.14	0.20	-0.20		
С	CA	>4 pF	СН	0± 60	0.49	-0.27	0.39	-0.39		
C		3 pF	CJ	0±120	0.82	-0.54	0.78	-0.78		
		<2 pF	CK	0±250	1.54	-1.13	1.63	-1.63		
G	SL		+350 to -1000	_	_	2.28	-6.50			

Class 2

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

For applicable "temperature characteristics", see the lists of standard products on page 13 to 20.

■ Rated Voltage

Code	1H	1E	1C	1A	01	_
Rated Voltage	DC 50 V	DC 25 V	DC 16 V	DC 10 V	DC 6.3 V	

■ Nominal Capacitance

Ex	0R5	010	100	104		
Nominal Capacitance	0.5 pF	1 pF	10 pF	100,000 pF (0.1 μF)		

■ Capacitance Tolerance

Class	Temp	erature Characte	ristics	Tol. Code	Capacitance Tolerance
			C < 5 pF	С	±0.25 pF
	C ₄ , SL Capacitance range		C <10 pF	D	±0.5 pF
1			C =10 pF	F	±1 pF
			C , 10 pF	J	±5 %
		C >10 pF	K	±10 %	
		B, X7R, X5R			±10 %
2					±20 %
	F, Y5V			Z	+80, -20 %

Temperature coefficient: calculated between 20 °C to 85 °C For applicable "temperature characteristics", see the lists of standard products on page 13 to 20.

■ Specification and Test Method

Item	Specif	ication	Test Method		
nem	Class 1	Class 2	Test Method		
Operating Temperature Range	Temp. Char. Ca : -55 to 125 °C : -25 to 85 °C (Size 1206, 5600 to 10000 pF) Temp. Char. SL : -55 to 125 °C	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 /	Test voltage: Class 1:Rated voltage ×300 % Class 2:Rated voltage ×250 % Duration:1 to 5 s Charge/discharge current: 50 mA max.			
Insulation Resistance (IR)	10000 M Ω or 500/C (M Ω) wh Note:100/C(M Ω)min. for DC 10 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		
Q Factor or Dissipation Factor ($ an \delta$)	C: C<30 pF: Q>400+20C 30 pF <c<1000 pf:q="">1000 tan δ: C>1000 pF: tan δ<0.002</c<1000>	tan δ : Temp. Char. B, X7R, X5R: 0.15 max. Temp. Char. F, Y5V: 0.2 max. Please see the technical			
	(C:Nominal Cap. in pF)	specifications for details.	Preconditioning: The capacitors shall be kept in temperature of 150 +0/-10 °C for 1 hour and subjected to standard condition* 48±4 hours before initial measurement. Nominal capacitance		
Temperature Characteristics	Temp. Char. CG: 0± 30 ppm/ °C CH: 0± 60 ppm/ °C CJ: 0±120 ppm/ °C CK: 0±250 ppm/ °C SL: +350 to -1000 ppm/ °C	Temp. Char. B: ±10 % X7R: ±15 % X5R: ±15 % F: +30, -80 % Y5V: +22, -82 %	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		
Adhesion	Terminal electrodes shall be fr peeling.	ee from peeling or signs of	Applied force: Size: 0201: 2 N Size: 0402 to 1206: 5N Duration: 10 s Size: 0201, 0402 1.0 - 0.5R Sample		

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

	Specif					
Item	Class 1	Class 2	Test Method			
Bending Strength	Appearance: No mechanical damage Capacitance change: Within ±5 % or ±0.5 pF whichever is larger.	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/ 20 R340 R340 Unit:mm			
Vibration Proof						
Resistance to Soldering Heat	Appearance: No mechanical damage Capacitance change: Within ±2.5 % or ±0.25 pF whichever is larger. Q.tan δ:Initial standard value IR:Initial standard value Withstand voltage: No dielectric breakdown and/or damage	Appearance: No mechanical damage Capacitance change: Temp. Char. B, X7R, X5R: within ±7.5 % F, Y5V: within ±20 % tan δ:Initial standard value IR:Initial standard value Withstand voltage: No dielectric breakdown and/or damage	Soldering bath method Preconditioning:Heat treatment/Class 2 ^(*1) Solder temperature:270±5 °C Dipping period:3.0±0.5 s Preheat condition: Order Temp. (°C) Size 0805 max. Size 1206 min. 1 80 to 100 120 to 180 s 300 to 360 s 2 150 to 200 120 to 180 s 300 to 360 s Recovery (Standard condition): Class 1:24±2 h Class 2:48±4 h			
Solderability	More than 95 % of the solde electrodes should be covered	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: Within ±2.5 % or ±0.25 pF whichever is larger. Q.tan δ:Initial standard value IR:Initial standard value Withstand voltage: No dielectric breakdown and/or damage	Appearance: No mechanical damage Capacitance change: Temp. Char. B, X7R, X5R: within ±7.5 % F, Y5V: within ±20 % tan δ:Initial standard value IR:Initial standard value Withstand voltage: No dielectric breakdown and/or damage	Preconditioning:Heat treatment (150 °C, 1h) /Class 2 Condition of one cycle Step 1:Minimum operationing temp. 30±3 min Step 2:Room temp. 3 min max. Step 3:Maximum operationing temp. 30±3 min Step 4:Room temp. 3 min max. Number of cycles:5 cycles Recovery (Standard condition) Class 1:24±2 h Class 2:48±4 h			
Damp Heat (Steady state)	Appearance: No mechanical damage Capacitance change: Within ± 5 % or ± 0.5 pF whichever is larger. Q: C<10 pF:Q>200+10C 10 pF <c<30 pf:q="">275+5C/2 30 pF<c<1000 pf:q="">350 tanδ: C>1000 pF:tan δ<0.004 C:Nominal capacitance in pF IR: 1000 MΩ or 50/C (MΩ) Whichever is less. C:Nominal capacitance in μF</c<1000></c<30>	Appearance: No mechanical damage Capacitance change: Temp. Char. B, X7R, X5R: Within ± 20 % F, Y5V: Within ± 30 % tan δ : Temp. Char. B, X7R, X5R: 0.25 max. F, Y5V: 0.3 max. IR: 1000 M Ω or 50/C (M Ω) Whichever is less. Note:10/C (M Ω) min. for DC 10 V max. C:Nominal capacitance in μ F Please see the technical specifications for details.	Preconditioning:Heat treatment/Class 2 ^(*1) Temperature:40±2 °C Relative humidity:90 to 95 % Test period:500+24/0 h Recovery (Standard condition) Class 1:24±2 h Class 2:48±4 h			

(*1) Heat treatment: 1 h of heat treatment at 150 +0/-10 °C followed by 48±4 h recovery under the standard condition.

	Specif	ication	T . M . I
Item	Class 1	Class 2	Test Method
Damp Heat Load	Appearance: No mechanical damage Capacitance change: Within ± 7.5 % or ± 0.75 pF whichever is larger. Q: C<30 pF:Q>100+10C/3 30 pF <c<1000 pf:q="">200 tanδ: C>1000 pF:tan δ<0.004 (C:Nominal capacitance in pF) IR: 500 MΩ or 25/C (MΩ) Whichever is less. (C:Nominal capacitance in μF)</c<1000>	Appearance: No mechanical damage Capacitance change: Temp. Char. B, X7R, X5R: Within ± 20 % F, Y5V: Within ± 30 % tan δ : Temp. Char. B, X7R, X5R: 0.25 max. F, Y5V: 0.3 max. IR: 500 M Ω or 25/C (M Ω) Whichever is less. Note:5/C (M Ω) min. for DC 10 V max. C:Nominal capacitance in μ F Please see the technical specifications for details.	Preconditioning:Voltage treatment/Class 2 ^(*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) Class 1:24±2 h Class 2:48±4 h
High Temperature Load	Appearance: No mechanical damage Capacitance change: Within ± 3 % or ± 0.3 pF whichever is larger. C: C<10 pF:Q>200+10C 10 pF <c<30 pf:q="">275+5C/2 30 pF<c<1000 pf:q="">350 tan δ: C>1000 pF:tan δ<0.004 C:Nominal capacitance in pF IR: 1000 MΩ or 50/C (MΩ) Whichever is less. C:Nominal capacitance in μF</c<1000></c<30>	Appearance: No mechanical damage Capacitance change: Temp. Char. B, X7R, X5R: Within $\pm 20~\%$ F, Y5V: Within $\pm 30~\%$ tan δ : Temp. Char. B, X7R, X5R: 0.25 max. F, Y5V: 0.3 max. IR: 1000 M Ω or 50/C (M Ω) Whichever is less. Note:10/C (M Ω) min. for DC 10 V max. C:Nominal capacitance in μ F Please see the technical specifications for details.	Preconditioning:Voltage treatment/Class 2 ^(*2) Temperature: Maximum operating temp. ±3 °C Applied voltage: (1) Rated voltage ×200 % (2) Rated voltage ×100 % Please see the technical specifications for details. Charge/discharge current: 50 mA max. Test period:1000+48/0 h Recovery (Standard condition) Class 1:24±2 h Class 2:48±4 h

^(*1) Heat treatment:1 h of heat treatment at 150+0/-10 °C followed by 48±4 h recovery under the standard condition (*2) Voltage treatment:1 h of voltage treatment under the specified temperature and voltage for testing followed by 48±4 h of recovery under the standard condition

■ Standard Products for EIA "0201", Taped Version

◆ Temperature Characteristic Code : C (Temperature Characteristics : C△)

Rated voltage		DC 25 V					DC 16 V						
Capaci- tance	Capacitance	Part No.	Dim. T		Ter Ch	np. ar.		Part No.	Dim. T		Ter Ch		
(pF)	Tolerance	Tart IVO.		СК	CJ	СН	CG	Tart 140.		СК	CJ	СН	CG
0.5	±0.25 pF(C)	ECJZEC1E0R5C	0.3	0	_	_	_						
1		ECJZEC1E010□	0.3	0	_	_	_						
1.5	0.05 5 (0)	ECJZEC1E1R5□	0.3	0	_	_	_						
2	±0.25 pF (C)	ECJZEC1E020□	0.3	0	—	_	_						
3	±0.5 pF (D)	ECJZEC1E030□	0.3	—	0	_	_						
4	(-)	ECJZEC1E040□	0.3	—	_	0	_						
5		ECJZEC1E050□	0.3	—	_	0	_						
6		ECJZEC1E060D	0.3	—	—	0	_						
7	±0.5 pF (D)	ECJZEC1E070D	0.3	—	_	0	_						
8	±0.5 pr (D)	ECJZEC1E080D	0.3	—	—	0	_						\perp
9		ECJZEC1E090D	0.3	—	_	0	_						<u> </u>
10	± 0.5 pF (D) or ± 1 pF (F)	ECJZEC1E100□	0.3	_	—	0	0						
12		ECJZEC1E120□	0.3	—	_	0	0						
15		ECJZEC1E150□	0.3	_	_	0	0						
18		ECJZEC1E180□	0.3	_	_	0	0						
22		ECJZEC1E220□	0.3	_	-	0	0						
27	5 A/ (I)	ECJZEC1E270□	0.3			0	0						
33	±5 % (J)	ECJZEC1E330□	0.3	_		0	0						
39	±10 % (K)							ECJZEC1C390□	0.3	_	_	0	0
47								ECJZEC1C470□	0.3	_	_	0	0
56								ECJZEC1C560□	0.3	_	_	0	0
68								ECJZEC1C680□	0.3	_	_	0	0
82								ECJZEC1C820□	0.3	_	_	0	0
100								ECJZEC1C101□	0.3	_	_	0	0

^{☐:} Capacitance tolerance code.

Standard packaging quantity of Packaging Style Code "E" (T = 0.3 mm): 15,000 pcs./reel Recommend soldering method: Reflow soldering.

Class 2 Capacitors

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

Rateo	d voltage	DC	50	٧			DC	25	٧			DC	16	٧			DC	10	٧			DC	6.3	٧		_
Capaci- tance (pF)	Capacitance Tolerance	Part No.	Dim. T (mm)		em Cha		Part No.	Dim. T (mm)	(em Cha		Part No.	Dim. T (mm)	C	emp hai X7R		Part No.	Dim. T (mm)		emi Cha X7R	r.	Part No.	Dim. T (mm)	C	emp Chai X7R	<u>r.</u>
150		ECJZEB1H151□	0.3	0	0	_	ECJZEB1E151□	0.3	0	0	_															
220		ECJZEB1H221□	0.3	0	0	_	ECJZEB1E221□	0.3	0	0	_															
330		ECJZEB1H331□	0.3	0	0	_	ECJZEB1E331□	0.3	0	0	_															
470		ECJZEB1H471□	0.3	0	0	_	ECJZEB1E471□	0.3	0	0																
680		ECJZEB1H681□	0.3	0	0	_	ECJZEB1E681□	0.3	0	0	_															
1000		ECJZEB1H102□	0.3	0	0	_	ECJZEB1E102□	0.3	0	0	_															
1500							ECJZEB1E152□	0.3	0	0	_	ECJZEB1C152□	0.3	0	0	_										
2200							ECJZEB1E222□	0.3	0	0	_	ECJZEB1C222□	0.3	0	0	_										
3300	±10 % (K)											ECJZEB1C332□	0.3	0	_	0	ECJZEB1A332□	0.3	0	_	0					
4700	or																	0.3	_	_			0.3	_	_	0
6800	±20 % (M)																ECJZEB1A682□	0.3	_	_	0	ECJZEB0J682□	0.3	_	_	0
10000																	ECJZEB1A103□	0.3	_	—	0	ECJZEB0J103□	0.3	_	_	0
15000																						ECJZEB0J153□	0.3	_	_	0
22000																						ECJZEB0J223□	0.3	_	-	0
33000																							0.3	_	-	0
47000																						ECJZEB0J473□	0.3	_	_	0
68000																						ECJZEB0J683□	0.3	_	_	0
100000																						ECJZEB0J104□	0.3	_	_	0
220000																						ECJZEB0J224M	0.3	—	—	0

☐: Capacitance tolerance code.

Standard packaging quantity of Packaging Style Code "E" (T = 0.3 mm): 15,000 pcs./reel Recommend soldering method: Reflow soldering.

■ Standard Products for EIA "0402", Taped Version

- - ◆ Temperature Characteristic Code : C (Temp. Char. : C△)

Rated	d voltage		DC	50 V			
Capaci- tance	Capacitance	Part No.	Dim. T		Ter Ch	np. iar.	
(pF)	Tölerance	Turt No.	(mm)	СК	CJ	СН	CG
0.5	±0.25 pF (C)	ECJ0EC1H0R5C	0.5	0	_	_	
1		ECJ0EC1H010□	0.5	0	_	_	
1.5	. 0 25 pE (C)	ECJ0EC1H1R5□	0.5	0	_	_	
2	±0.25 pF (C)	ECJ0EC1H020□	0.5	0	_	_	<u></u>
3	±0.5 pF (D)	ECJ0EC1H030□	0.5		0	_	
4	±0.5 pr (D)	ECJ0EC1H040□	0.5	_	_	0	
5		ECJ0EC1H050□	0.5		_	0	
6		ECJ0EC1H060D	0.5	-	_	0	<u></u>
7	±0.5 pF(D)	ECJ0EC1H070D	0.5		_	0	
8	±0.5 pr (D)	ECJ0EC1H080D	0.5		_	0	
9		ECJ0EC1H090D	0.5	_	_	0	
10	±0.5 pF (D) or ±1 pF (F)	ECJ0EC1H100□	0.5	_	_	0	0
12		ECJ0EC1H120□	0.5	_	_	0	0
15		ECJ0EC1H150□	0.5	_	_	0	0
18		ECJ0EC1H180□	0.5	_	_	0	0
22		ECJ0EC1H220□	0.5	_	_	0	0
27		ECJ0EC1H270□	0.5	_	_	0	0
33		ECJ0EC1H330□	0.5	_	_	0	0
39	. E 0/ /I\	ECJ0EC1H390□	0.5	_	_	0	0
47	±5 % (J)	ECJ0EC1H470□	0.5	_	_	0	0
56	or ±10 % (K)	ECJ0EC1H560□	0.5	_	_	0	0
68	±10 % (N)	ECJ0EC1H680□	0.5	_	_	0	0
82		ECJ0EC1H820□	0.5		_	0	0
100		ECJ0EC1H101□	0.5	_	_	0	0
120		ECJ0EC1H121□	0.5	_	_	0	0
150		ECJ0EC1H151□	0.5	_	_	0	0
180		ECJ0EC1H181□	0.5		_	0	0
220		ECJ0EC1H221□	0.5	_	_	0	0

◆ Temperature Characteristic Code: G (Temp. Char.: SL)

Rated	d voltage	DC 50) V	
Capaci- tance	Capacitance	Part No.	Dim. T	Temp. Char.
(pF)	Tolerance	Tart No.	(mm)	SL
0.5	±0.25 pF (C)	ECJ0EG1H0R5C	0.5	0
1		ECJ0EG1H010□	0.5	0
1.5	±0.25 pF (C)	ECJ0EG1H1R5□	0.5	0
2	or (C)	ECJ0EG1H020□	0.5	0
3	±0.5 pF (D)	ECJ0EG1H030□	0.5	0
4	±0.5 pi (D)	ECJ0EG1H040□	0.5	0
5		ECJ0EG1H050□	0.5	0
6		ECJ0EG1H060D	0.5	0
7	±0.5 pF(D)	ECJ0EG1H070D	0.5	0
8	±0.5 pi (D)	ECJ0EG1H080D	0.5	0
9		ECJ0EG1H090D	0.5	0
10	±0.5 pF (D) or ±1 pF (F)	ECJ0EG1H100□	0.5	0
12		ECJ0EG1H120□	0.5	0
15		ECJ0EG1H150□	0.5	0
18		ECJ0EG1H180□	0.5	0
22		ECJ0EG1H220□	0.5	0
27		ECJ0EG1H270□	0.5	0
33		ECJ0EG1H330□	0.5	0
39	±5 % (J)	ECJ0EG1H390□	0.5	0
47	±3 % (3)	ECJ0EG1H470□	0.5	0
56	±10 % (K)	ECJ0EG1H560□	0.5	0
68	±10 /0 (K)	ECJ0EG1H680□	0.5	0
82		ECJ0EG1H820□	0.5	0
100		ECJ0EG1H101□	0.5	0
120		ECJ0EG1H121□	0.5	0
150		ECJ0EG1H151□	0.5	0
180		ECJ0EG1H181□	0.5	0
220		ECJ0EG1H221□	0.5	0

 \square : Capacitance tolerance code. 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 "0402", Taped Version
- - ◆ Temperature Characteristic Code : B (Temperature Characteristics : B, X7R, X5R)

Capacilance lance lanc	Ratec	l voltage	DC	50	٧			DC	25	٧			DC	16	V			DC	10	٧			DC	6.3	V		
CF			Part No.		T	em Cha	p. r.	Part No.					Part No.		T	em Cha	p. r.	Part No.					Part No.	Dim. T			
Tool Ecureshitistic 0.5 0 0 0 0 0 0 0 0 0	(pF)	Tolerance		(mm)	В	X7R	X5R		(mm)	В	X7R	X5R		(mm)	В	X7R	X5R	2	(mm)	В	X7R	X5R		(mm)	В	X7R	X5R
ECUREBHISTIC O. S. O.	100		ECJ0EB1H101□	0.5	0	0	_																		\exists		_
BED	120		ECJ0EB1H121K	0.5	0	0	_																				_
Colore C	150		ECJ0EB1H151□	0.5	0	0	_																			П	_
CLUBERHASTI	180		ECJ0EB1H181K	0.5	0	0	_																				
BOOKERHISTED D. S. O O O O O O O O O O	220		ECJ0EB1H221□	0.5	0	0	_																				_
SOUR ECURENHAMIC O.5 O O O O O O O O O	270		ECJ0EB1H271K	0.5	0	0	_																				_
Colore C	330		ECJ0EB1H331□	0.5	0	0	_																				_
ECLOEBHHSSIN 0.5 0 0 0 0 0 0 0 0 0	390		ECJ0EB1H391K	0.5	0	0	_																				_
ECJOEBHRBZIK O.5 O.	470		ECJ0EB1H471□	0.5	0	0	_																				_
ECJOEBHH8ZIK 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0	560		ECJ0EB1H561K	0.5	0	0	_																				_
ECJ0EBIH1020 0.5 0 0 0 0 0 0 0 0 0	680		ECJ0EB1H681□	0.5	0	0	_																				
ECJ0EB1H122K 0.5 0.	820		ECJ0EB1H821K	0.5	0	0	_																				_
ECJ0EBHH392 0.5 0.6 0.6 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.	1000		ECJ0EB1H102□	0.5	0	0	_																				
RECUBERHIBACK 0.5 0 0 0 0 0 0 0 0 0	1200		ECJ0EB1H122K	0.5	0	0	_																				_
CLOBEH1222 0.5 0 0 0 0 0 0 0 0 0	1500		ECJ0EB1H152□	0.5	0	0	_																				
ECJ0EB1H272K 0.5 0 0 0 0 0 0 0 0 0	1800			0.5	0	0	_																		П		
3300 410 % (K) CLUBEHH332	2200		ECJ0EB1H222□	0.5	0	0	_																		П	П	_
SOUD	2700		ECJ0EB1H272K	0.5	0	0	_																				_
4700	3300	±10 % (K)	ECJ0EB1H332□	0.5	0	0	_																				_
Scool Scoo	3900	1			0	0																					_
	4700	±20 % (M)						ECJ0EB1E472□	0.5	0	0	_													П	П	_
R200	5600							ECJ0EB1E562K	0.5	0	0	_													П		_
10000	6800							ECJ0EB1E682□	0.5	0	0	_															_
12000	8200							ECJ0EB1E822K	0.5	0	0	_															
15000	10000							ECJ0EB1E103□	0.5	0	0	_	ECJ0EB1C103□	0.5	0	0	_								П		
18000	12000												ECJ0EB1C123K	0.5	0	0	_										_
C2000 C7000 C700	15000												ECJ0EB1C153□	0.5	0	0	_										_
27000	18000												ECJ0EB1C183K	0.5	0	0	_										_
33000	22000												ECJ0EB1C223□	0.5	0	0	_										_
39000	27000																	ECJ0EB1A273K	0.5	0	_	0					_
47000	33000																	ECJ0EB1A333□	0.5	0	_	0					_
Section	39000																	ECJ0EB1A393K	0.5	0	_	0					_
	47000																	ECJ0EB1A473□	0.5	0	_	0					_
S2000	56000																	ECJ0EB1A563K	0.5	0	_	0			П		
100000 ECJ0EB1C104□ 0.5 — O ECJ0EB1A104□ 0.5 O — O ECJ0EB0J224□ 0.5 — O	68000																	ECJ0EB1A683□	0.5	0	_	0			\Box	П	
100000 ECJ0EB1C104□ 0.5 — O ECJ0EB1A104□ 0.5 O — O ECJ0EB0J224□ 0.5 — O																			0.5	0	_	_			\Box	T	_
	100000												ECJ0EB1C104□	0.5	_	_	0	ECJ0EB1A104□	-	_	<u> </u>	_			\Box	\Box	_
	220000																						ECJ0EB0J224□	0.5	=	=	0
	470000																						ECJ0EB0J474□	0.5	=	-	

^{□:} Capacitance tolerance code.

Standard packaging quantity of Packaging Style Code "E" (T = 0.5 mm): 10,000 pcs./reel. Recommend soldering method: Reflow soldering. For capacitance 1 μ F or more, see page 6 and 7 for High Capacitance.

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

Rated	d voltage	DC	50	٧		DC	25	V		DC	16	V		DC	10	V	
Capaci- tance	Capacitance	Part No.	Dim.		mp. nar.	Part No.	Dim.		np. iar.	Part No.	Dim.		mp. nar.	Part No.	Dim.		mp. nar.
(pF)	Tolerance	Tart No.	(mm)	F	Y5V	Tart No.	(mm)	F	Y5V	Tart No.	(mm)	F	Y5V	Tart No.	(mm)	F	Y5V
1000		ECJ0EF1H102Z	0.5	0	0	ECJ0EF1E102Z	0.5	0	0								
2200		ECJ0EF1H222Z	0.5	0	0	ECJ0EF1E222Z	0.5	0	0								
4700		ECJ0EF1H472Z	0.5	0	0	ECJ0EF1E472Z	0.5	0	0								
10000	+80, -20%	ECJ0EF1H103Z	0.5	0	0	ECJ0EF1E103Z	0.5	0	0								
22000	(Z)					ECJ0EF1E223Z	0.5	0	0	ECJ0EF1C223Z	0.5	0	0				
47000										ECJ0EF1C473Z	0.5	0	0				
100000										ECJ0EF1C104Z	0.5	0	0				
220000														ECJ0EF1A224Z	0.5	0	0

Standard packaging quantity of Packaging Style Code "E" (T = 0.5 mm): 10,000 pcs./reel. Recommend soldering method: Reflow soldering. For capacitance 1 μ F or more, see page 6 and 7 for High Capacitance.

■ Standard Products for EIA "0603", Taped Version

- Class 1
 - ◆ Temperature Characteristic Code : C (Temp. Char. : C△)

Rated	d voltage		DC	50 V			
Capaci- tance	Capacitance	Part No.	Dim. T		Ter Ch	np. iar.	
(pF)	Tolerance	Tart IVO.	(mm)	СК	CJ	СН	CG
0.5	±0.25 pF (C)	ECJ1VC1H0R5C	0.8	0		_	_
1		ECJ1VC1H010□	0.8	0		_	_
1.5	±0.25 pF (C)	ECJ1VC1H1R5□	0.8	0	_	_	
2	or (C)	ECJ1VC1H020□	0.8	0	_	_	
3	±0.5 pF (D)	ECJ1VC1H030□	0.8	_	0	_	
4	±0.5 pr (D)	ECJ1VC1H040□	0.8	_	_	0	
5		ECJ1VC1H050□	0.8		_	0	
6		ECJ1VC1H060D	0.8	_	_	0	
7	±0.5 pF (D)	ECJ1VC1H070D	0.8	_	_	0	
8	±0.5 pr (D)	ECJ1VC1H080D	0.8	_	_	0	
9		ECJ1VC1H090D	0.8	_	_	0	
10	±0.5 pF (D) or ±1 pF (F)	ECJ1VC1H100□	0.8	_	_	0	0
12		ECJ1VC1H120□	0.8	_	_	0	0
15		ECJ1VC1H150□	0.8	_	_	0	0
18		ECJ1VC1H180□	8.0	_	_	0	0
22		ECJ1VC1H220□	8.0	_	_	0	0
27		ECJ1VC1H270□	0.8	_		0	0
33		ECJ1VC1H330□	8.0	_		0	0
39		ECJ1VC1H390□	0.8	_		0	0
47		ECJ1VC1H470□	0.8	_		0	0
56		ECJ1VC1H560□	0.8	_		0	0
68		ECJ1VC1H680□	0.8	_		0	0
82	±5 % (J)	ECJ1VC1H820□	0.8	_		0	0
100	±3 /0 (3)	ECJ1VC1H101□	0.8	_	_	0	0
120	±10 % (K)	ECJ1VC1H121□	0.8	_	_	0	0
150	±10 /0 (K)	ECJ1VC1H151	0.8	_	_	0	0
180		ECJ1VC1H181□	0.8	_	_	0	0
220		ECJ1VC1H221□	0.8	_	_	0	0
270		ECJ1VC1H271□	0.8	_	_	0	0
330		ECJ1VC1H331□	0.8	_	_	0	0
390		ECJ1VC1H391□	0.8	_	_	0	0
470		ECJ1VC1H471□	0.8	_	_	0	0
560		ECJ1VC1H561□	0.8	_		0	0
680		ECJ1VC1H681□	0.8	_	_	0	0
820		ECJ1VC1H821□	0.8	_		0	0

◆ Temperature Characteristic Code : G (Temp. Char. : SL)

Rateo	d voltage	DC 50) V	
Capaci- tance	Capacitance	Part No.	Dim.	Temp. Char.
(pF)	Tölerance		(mm)	SL
0.5	±0.25 pF (C)	ECJ1VG1H0R5C	0.8	0
1		ECJ1VG1H010□	0.8	0
1.5	±0.25 pF (C)	ECJ1VG1H1R5□	0.8	0
2	or (C)	ECJ1VG1H020□	0.8	0
3	±0.5 pF (D)	ECJ1VG1H030□	0.8	0
4	±0.5 pi (D)	ECJ1VG1H040□	0.8	0
5		ECJ1VG1H050□	0.8	0
6		ECJ1VG1H060D	0.8	0
7	±0.5 pF (D)	ECJ1VG1H070D	0.8	0
8	±0.5 pr (D)	ECJ1VG1H080D	0.8	0
9		ECJ1VG1H090D	0.8	0
10	±0.5 pF (D) or ±1 pF (F)	ECJ1VG1H100□	0.8	0
12	, , ,	ECJ1VG1H120□	0.8	0
15		ECJ1VG1H150□	0.8	0
18		ECJ1VG1H180□	0.8	0
22		ECJ1VG1H220□	0.8	0
27		ECJ1VG1H270□	0.8	0
33		ECJ1VG1H330□	0.8	0
39		ECJ1VG1H390□	0.8	0
47		ECJ1VG1H470□	0.8	0
56		ECJ1VG1H560□	0.8	0
68		ECJ1VG1H680□	0.8	0
82	F 0/ /I\	ECJ1VG1H820□	0.8	0
100	±5 % (J)	ECJ1VG1H101□	0.8	0
120	or ±10 % (K)	ECJ1VG1H121□	0.8	0
150	±10 % (K)	ECJ1VG1H151□	0.8	0
180		ECJ1VG1H181□	0.8	0
220		ECJ1VG1H221□	0.8	0
270		ECJ1VG1H271□	0.8	0
330		ECJ1VG1H331□	0.8	0
390		ECJ1VG1H391□	0.8	0
470		ECJ1VG1H471□	0.8	0
560		ECJ1VG1H561□	0.8	0
680		ECJ1VG1H681□	0.8	0
820		ECJ1VG1H821□	0.8	0
1000		ECJ1VG1H102□	0.8	0

ECJ1VC1H102□ 0.8

1000

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

^{□:} Capacitance tolerance code.

- Standard Products for EIA "0603", Taped Version
- - ◆ Temperature Characteristic Code : B (Temperature Characteristics : B, X7R, X5R)

Rated	d voltage	DC	50	٧			DC	25	٧			DC	16	٧			DC	10	V			DC	6.3	V		
Capaci- tance	Capacitance	Part No.	Dim.		emp Cha		Part No.	Dim.	T	em Cha	p. r.	Part No.	Dim.		emp Cha		Part No.	Dim.	Te	emp Cha	o. r.	Part No.	Dim.		emp Char	
(pF)	Tolerance	rait No.	(mm)	В	X7R	X5R		(mm)	В	X7R	X5R	Tart No.	(mm)	В	X7R	X5R		(mm)	В	X7R	X5R	Tart No.	(mm)	В	X7R	X5R
1000		ECJ1VB1H102□	0.8	0	0	_																				_
1200		ECJ1VB1H122K	0.8	0	0	_																				
1500		ECJ1VB1H152□	0.8	0	0	_																		Ш		
1800		ECJ1VB1H182K	0.8	0	0	_																				
2200		ECJ1VB1H222□	0.8	0	0	_																				
2700		ECJ1VB1H272K	0.8	0	0	_																				
3300		ECJ1VB1H332□	0.8	0	0	_																				
3900		ECJ1VB1H392K	0.8	0	0	_																				
4700		ECJ1VB1H472□	0.8	0	0																					
5600		ECJ1VB1H562K	0.8	0	0																			П		
6800		ECJ1VB1H682□	0.8	0	0	_																		П		_
8200]	ECJ1VB1H822K	0.8	0	0	_																		П		_
10000]	ECJ1VB1H103□	0.8	0	0	_	ECJ1VB1E103□	0.8	0	0	_	ECJ1VB1C103□	0.8	0	0	_								П		
12000	10 0///	ECJ1VB1H123K	0.8	0	0	_	ECJ1VB1E123K	0.8	0	0	_	ECJ1VB1C123K	0.8	0	0	_								П		
15000	±10 %(K)	ECJ1VB1H153□	0.8	0	0	_	ECJ1VB1E153□	0.8	0	0	_	ECJ1VB1C153□	0.8	0	0	_								П		
18000	or ±20 %(M)	ECJ1VB1H183K	0.8	0	0	_	ECJ1VB1E183K	0.8	0	0	_	ECJ1VB1C183K	0.8	0	0	_								П		
22000	1±20 %(IVI)	ECJ1VB1H223□	0.8	0	0	_	ECJ1VB1E223□	0.8	0	0	_	ECJ1VB1C223□	0.8	0	0	_								П		
27000	1 1	ECJ1VB1H273K	0.8	0	0	_	ECJ1VB1E273K	0.8	0	0	_	ECJ1VB1C273K	0.8	0	0	_								П		
33000]	ECJ1VB1H333□	0.8	0	0	_	ECJ1VB1E333□	0.8	0	0	_	ECJ1VB1C333□	0.8	0	0	_								П		
39000	1 1	ECJ1VB1H393K	0.8	0	0	_	ECJ1VB1E393K	0.8	0	0	_	ECJ1VB1C393K	0.8	0	0	_								П		
47000	1 1	ECJ1VB1H473□	0.8	0	0	_	ECJ1VB1E473□	0.8	0	0	_	ECJ1VB1C473□	0.8	0	0	_								П		
56000	1 1	ECJ1VB1H563K	0.8	0	0	_	ECJ1VB1E563K	0.8	0	0	_	ECJ1VB1C563K	0.8	0	0	_								П		
68000	1	ECJ1VB1H683□	0.8	0	0	_	ECJ1VB1E683□	0.8	0	0	_	ECJ1VB1C683□	0.8	0	0	_								П		
82000	1	ECJ1VB1H823K	0.8	0	0	_	ECJ1VB1E823K	0.8	0	0	_	ECJ1VB1C823K	0.8	0	0	_								П		_
100000	1	ECJ1VB1H104□	0.8	0	0	_	ECJ1VB1E104□	0.8	0	0	_	ECJ1VB1C104□	0.8	0	0	_								П	\Box	_
150000	1											ECJ1VB1C154	0.8	_	_	0	ECJ1VB1A154□	0.8	0	_	0			П		_
220000	1 1											ECJ1VB1C224□	0.8	_	_	0	ECJ1VB1A224□	0.8	_	_	0			\sqcap	\exists	_
330000	1 1											ECJ1VB1C334□	0.8	_		0	ECJ1VB1A334□	0.8		_	0			\sqcap	\neg	_
470000	1 1											ECJ1VB1C474□	0.8	_	_	0	ECJ1VB1A474□	0.8	_	_	0	ECJ1VB0J474□	0.8		=	0
680000	1 1											ECJ1VB1C684□	0.8	_	_	0	ECJ1VB1A684□	0.8	<u> </u>	_		ECJ1VB0J684□	0.8			0

 \Box : Capacitance tolerance code. Standard packaging quantity of Packaging Style Code "V" (T = 0.8 mm): 4,000 pcs./reel Recommend soldering method: Reflow soldering. For capacitance 1 μF or more, see page 6 and 7 for High Capacitance.

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

Ratec	d voltage	DC	50	V		DC	25	V		DC	16	V	
Capaci- tance	Capacitance	Part No.	Dim.		np. ar.	Part No.	Dim.		np. iar.	Part No.	Dim.		np. iar.
(pF)	Tolerance	Tart No.	(mm)	F	Y5V	Tart 140.	(mm)	F	Y5V	Tart No.	(mm)	F	Y5V
10000		ECJ1VF1H103Z	0.8	0	0								
22000		ECJ1VF1H223Z	0.8	0	0								
47000	+80,	ECJ1VF1H473Z	0.8	0	0								
100000	-20 % (Z)	ECJ1VF1H104Z	0.8	0	0	ECJ1VF1E104Z	8.0	0	0	ECJ1VF1C104Z	0.8	0	0
220000										ECJ1VF1C224Z	0.8	0	0
470000										ECJ1VF1C474Z	0.8	0	0

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

For capacitance 1 µF or more, see page 6 and 7 for High Capacitance.

- Standard Products for EIA "0805", Taped Version
- - ◆ Temperature Characteristic Code: C (Temp. Char.: C△)

Datas	م معملام یا	DC	FO 1/		
Kated	d voltage	DC	50 V		
Capaci- tance	Capacitance	Part No.	Dim. T		np. ar.
(pF)	Tolerance		(mm)	СН	CG
27		ECJ2VC1H270□	0.6	0	0
33		ECJ2VC1H330□	0.6	0	0
39		ECJ2VC1H390□	0.6	0	0
47		ECJ2VC1H470□	0.6	0	0
56		ECJ2VC1H560□	0.6	0	00
68		ECJ2VC1H680□	0.6	0	0
82		ECJ2VC1H820□	0.6	0	0
100		ECJ2VC1H101□	0.6	0	0
120		ECJ2VC1H121□	0.6	0	0
150	,	ECJ2VC1H151	0.6	0	0
180		ECJ2VC1H181	0.6	0	0
220	±5 %(J)	ECJ2VC1H221	0.6	0	0
270	or	ECJ2VC1H271□	0.6	0	0
330	±10 %(K)	ECJ2VC1H331□	0.6	0	0
390		ECJ2VC1H391□	0.6	0	0
470		ECJ2VC1H471□	0.6	0	0
560		ECJ2VC1H561□	0.6	0	0
680		ECJ2VC1H681□	0.6	0	0
820		ECJ2VC1H821□	0.6	0	0
1000		ECJ2VC1H102	0.6	0	0
1200		ECJ2VC1H122□	0.6	0	
1500		ECJ2VC1H152□	0.6	0	
1800		ECJ2VC1H182□	0.6	0	
2200		ECJ2VC1H222□	0.6	0	
2700		ECJ2VC1H272□	0.85	0	

◆ Temperature Characteristic Code : G (Temp. Char. : SL)

Rated	d voltage	DC	50 V	
Capaci- tance	Capacitance	Part No.	Dim.	Temp. Char.
(pF)	Tolerance	Turt 140.	(mm)	SL
27		ECJ2VG1H270□	0.6	0
33		ECJ2VG1H330□	0.6	0
39		ECJ2VG1H390□	0.6	0
47		ECJ2VG1H470□	0.6	0
56		ECJ2VG1H560□	0.6	0
68		ECJ2VG1H680□	0.6	0
82		ECJ2VG1H820□	0.6	0
100		ECJ2VG1H101□	0.6	0
120		ECJ2VG1H121□	0.6	0
150		ECJ2VG1H151□	0.6	0
180		ECJ2VG1H181□	0.6	0
220	±5 %(J)	ECJ2VG1H221□	0.6	0
270	or	ECJ2VG1H271□	0.6	0
330	±10 %(K)	ECJ2VG1H331□	0.6	0
390		ECJ2VG1H391□	0.6	0
470		ECJ2VG1H471□	0.6	0
560		ECJ2VG1H561□	0.6	0
680		ECJ2VG1H681□	0.6	0
820		ECJ2VG1H821□	0.6	0
1000		ECJ2VG1H102□	0.6	0
1200		ECJ2VG1H122□	0.6	0
1500		ECJ2VG1H152□	0.6	0
1800		ECJ2VG1H182□	0.6	0
2200		ECJ2VG1H222□	0.6	0
2700		ECJ2VG1H272□	0.6	0

□: Capacitance tolerance code.

Dimensional tolerance of L, W, T: ± 0.1 mm

Standard packaging quantity of Packaging Style Code "V" (T = 0.6 mm): 5,000 pcs./reel, "V" (T = 0.85 mm): 4,000 pcs./reel Recommend soldering method: Reflow soldering.

■ Standard Products for EIA "0805", Taped Version

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

Rate	ed voltage	DC	50 '	V			DC	25 \	/			DC	16 \	V			DC	10 \	/		
Capaci- tance	Capacitance	Part No.	Dim. T		emp Char		Part No.	Dim. T		emp Char		Part No.	Dim.		emp Char		Part No.	Dim. T		emp Char	
(pF)	Tolerance	Tart NO.	(mm)	В	X7R	X5R	Tart No.	(mm)	В	X7R	X5R	Tart NO.	(mm)	В	X7R	X5R	Tart NO.	(mm)	В	X7R	X5R
1000		ECJ2VB1H102□	0.6	0	0	_															
1200		ECJ2VB1H122K	0.6	0	0	-															
1500		ECJ2VB1H152□	0.6	0	0	-															
1800		ECJ2VB1H182K	0.6	0	0																<u> </u>
2200		ECJ2VB1H222□	0.6	0	0																
2700		ECJ2VB1H272K	0.6	0	0																
3300		ECJ2VB1H332□	0.6	0	0	-															
3900		ECJ2VB1H392K	0.6	0	0	_															
4700		ECJ2VB1H472□	0.6	0	0	_															
5600		ECJ2VB1H562K	0.6	0	0	_															
6800		ECJ2VB1H682□	0.6	0	0	_															
8200		ECJ2VB1H822K	0.6	0	0	_															
10000		ECJ2VB1H103□	0.6	0	0	_															
12000	.10.0/ ///	ECJ2VB1H123K	0.6	0	0	_															
15000	±10 % (K)	ECJ2VB1H153□	0.6	0	0	_															
18000	or ±20 % (M)	ECJ2VB1H183K	0.6	0	0	_															
22000	±20 % (IVI)	ECJ2VB1H223□	0.6	0	0	_															
27000		ECJ2VB1H273K	0.85	0	0																
33000		ECJ2VB1H333□	0.85	0	0	_															
39000		ECJ2VB1H393K	0.85	0	0	_															
47000		ECJ2FB1H473□	1.25	0	0	_	ECJ2VB1E473□	0.85	0	0	_										
56000		ECJ2FB1H563K	1.25	0	0	_	ECJ2VB1E563K	0.85	0	0	_										
68000		ECJ2FB1H683□	1.25	0	0	_	ECJ2VB1E683□	0.85	0	0	_										
82000		ECJ2FB1H823K	1.25	0	0	_	ECJ2VB1E823K	0.85	0	0	_										
100000		ECJ2FB1H104□	1.25	0	0	_	ECJ2VB1E104□	0.85	0	0	_	ECJ2VB1C104□	0.85	0	0	_					
150000							ECJ2FB1E154□	1.25	0	0	_	ECJ2VB1C154□	0.85	0	0	_					
220000							ECJ2FB1E224□	1.25	0	0	_	ECJ2VB1C224□	0.85	0	0	_					
330000	1											ECJ2FB1C334□	1.25	0	0	_					
470000	1											ECJ2FB1C474□	1.25	0	0	_					
680000												ECJ2FB1C684□	1.25*	_	_	0	ECJ2FB1A684□	1.25	_	_	0

^{□:} Capacitance tolerance code.

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

Standard packaging quantity of Packaging Style Code *V* (T = 0.6 mm): 5,000 pcs./reel, *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.

For capacitance 1 μF or more, see page 6 and 7 for High Capacitance.

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

Rated	d voltage	DC 50 V			DC 25 V				DC 16 V				
Capaci- tance	Capacitance	Part No.	Dim.		mp. nar.	Part No.	Dim.	Temp. Char.		Part No.	Dim.	Temp. Char.	
(pF)	Tolerance	Tart NO.	(mm)	F	Y5V	Tart NO.	(mm)	F	Y5V	Tart NO.	(mm)	F	Y5V
10000		ECJ2VF1H103Z	0.6	0	0								
22000		ECJ2VF1H223Z	0.6	0	0								
47000	+80,	ECJ2VF1H473Z	0.6	0	0								
100000	-20 %(Z)	ECJ2VF1H104Z	0.85	0	0	ECJ2VF1E104Z	0.6	0	0	ECJ2VF1C104Z	0.6	0	0
220000		ECJ2VF1H224Z	0.85	0	0	ECJ2VF1E224Z	0.85	0	0	ECJ2VF1C224Z	0.6	0	0
470000						ECJ2FF1E474Z	1.25	0	0	ECJ2VF1C474Z	0.85	0	0

Dimensional tolerance of L, W, T: \pm 0.1 mm

Standard packaging quantity of Packaging Style Code "V" (T = 0.6 mm): 5,000 pcs./reel, "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. For capacitance 1 μ F or more, see page 6 and 7 for High Capacitance.

■ Standard Products for EIA "1206", Taped Version

◆ Temperature Characteristic Code : C (Temp. Char. : C∆)

Rated	d voltage	DC 50 V							
Capaci- tance	Capacitance	Part No.	Dim.	Temp. Char.					
(pF)	Tölerance	Tart NO.	(mm)	СН					
3300		ECJ3VC1H332□	0.6	0					
3900		ECJ3VC1H392□	0.6	0					
4700	±5 % (J)	ECJ3VC1H472□	0.6	0					
5600	or	ECJ3VC1H562□	0.85	0					
6800	±10 % (K)	ECJ3VC1H682□	0.85	0					
8200		ECJ3FC1H822□	1.15	0					
10000		ECJ3FC1H103□	1.15	0					

◆ Temperature Characteristic Code: G (Temp. Char.: SL)

Rated	d voltage	DC 50 V							
Capaci- tance	Capacitance Tolerance	Part No.	Dim.	Temp. Char.					
(pF)	Tölerance	Fait NO.	(mm)	SL					
3300	. F 0/ /I)	ECJ3VG1H332□	0.6	0					
3900	±5 % (J)	ECJ3VG1H392□	0.6	0					
4700	±10 % (K)	ECJ3VG1H472□	0.6	0					
5600	±10 % (K)	ECJ3VG1H562□	0.6	0					

□: Capacitance tolerance code.

Dimensional tolerance L, W: ± 0.15 mm / T: ± 0.1 mm

Standard packaging quantity of Packaging Style Code *V" (T = 0.6 mm): 5,000 pcs./reel, *V" (T = 0.85 mm): 4,000 pcs./reel, *F* (T = 1.15 mm): 3,000 pcs./reel Soldering method of dimension T>1 mm: Avoid flow soldering.

Class 2

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

Rate	d voltage	DC 50 V				DC 25 V					DC 16 V					
Capaci- tance Capacitar		Part No.	Dim.		emp Char		Part No.	Dim.	Temp. Char.			Part No.	Dim.	Temp. Char.		
(pF)	Tolerance	Part NO.	(mm)	В	X7R	X5R		(mm)	В	X7R	X5R		(mm)	В	X7R	X5R
100000							ECJ3VB1E104□	0.85	0	0	_	ECJ3VB1C104□	0.85	0	0	—
150000	±10 %(K)						ECJ3VB1E154□	0.85	0	0	_	ECJ3VB1C154□	0.85	0	0	<u> </u>
220000	±10 /0(K)	ECJ3YB1H224□	1.6	0	0		ECJ3VB1E224□	0.85	0	0		ECJ3VB1C224□	0.85	0	0	_
330000	or ±20 %(M)						ECJ3VB1E334□	0.85	0	0		ECJ3VB1C334□	0.85	0	0	_
470000	±20 %(IVI)						ECJ3FB1E474□	1.15	0	0		ECJ3VB1C474□	0.85	0	0	
680000							ECJ3YB1E684□	1.6	0	0	_	ECJ3VB1C684□	0.85	0	0	

□: Capacitance tolerance code.

Dimensional tolerance of L, W, T: L, W: ± 0.15 mm / T: ± 0.1 mm for T = 0.85, 1.15 mm, L, W, T: ± 0.2 mm for T = 1.6 mm

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 Soldering method of dimension T>1 mm: Avoid flow soldering. For capacitance 1 μF or more, see page 6 and 7 for High Capacitance.