

Metallized Polyester Film Capacitor

Type: **ECQE(T)**

Non-inductive construction using metallized Polyester film with flame retardant epoxy resin coating



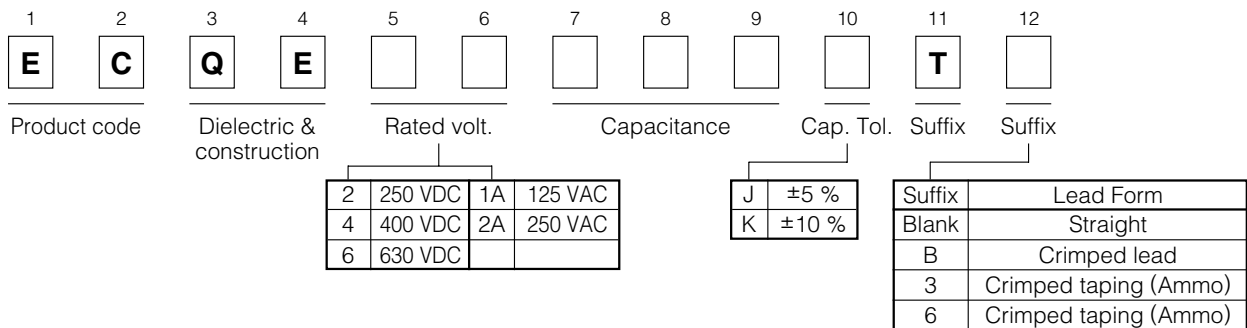
■ Features

- Self-healing property
- Excellent electrical characteristics
- Flame retardant epoxy resin coating
- Moisture resistance 85 °C, 85 % RH for 500 hours
- RoHS directive compliant

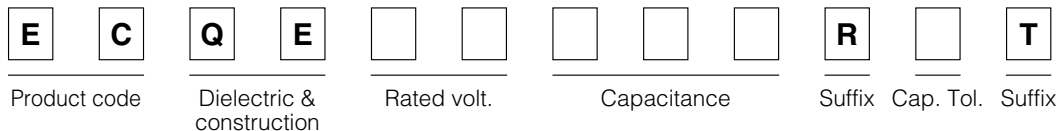
■ Recommended Applications

- General purpose usage

■ Explanation of Part Numbers



● Explanation of Part Number for Odd Size Taping



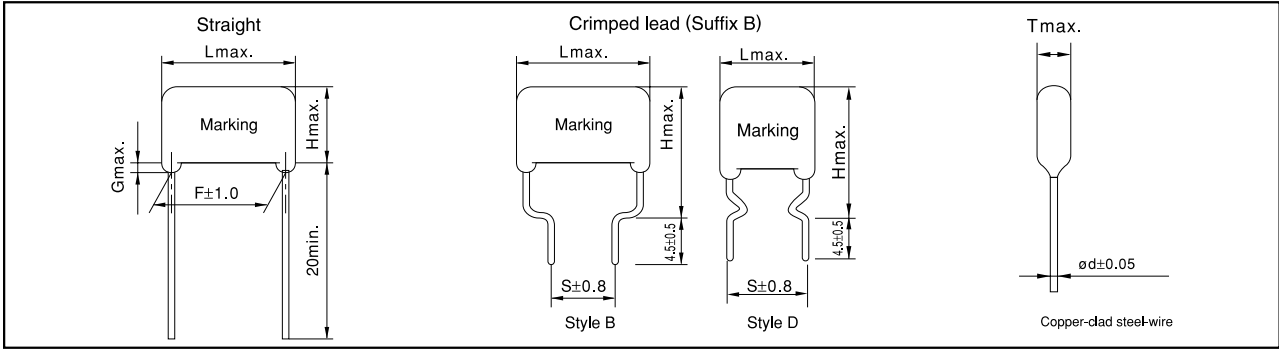
■ Specifications

Category temp. range (Including temperature-rise on unit surface)	250 VDC, 400 VDC, 630 VDC	-40 °C to +105 °C
	125 VAC, 250 VAC	-40 °C to +85 °C
Rated voltage	250 VDC, 400 VDC, 630 VDC (Derating of rated voltage by 1.25 %/°C at more than 85 °C) 125 VAC, 250 VAC	
Capacitance range	0.010 μF to 10 μF (E12)	
Capacitance tolerance	±5 % (J), ±10 % (K)	
Dissipation factor (tanδ)	tanδ ≤ 1.0 % (20 °C, 1 kHz)	
Withstand voltage	<ul style="list-style-type: none"> ● Rated volt. 250 VDC to 630 VDC Between terminals : Rated volt.(VDC) × 150 % 60 s 	
	<ul style="list-style-type: none"> ● Rated volt. 125 VAC, 250 VAC Between terminals : Rated volt.(VAC) × 230 % 60 s Between terminals to enclosure : 1500 VAC 60 s 	
Insulation resistance (IR)	250 VDC to 630 VDC: C ≤ 0.33 μF : IR ≥ 9000 MΩ C > 0.33 μF : IR ≥ 3000 MΩ · μF (20 °C, 100VDC, 60 s)	
	125 VAC, 250 VAC: IR ≥ 2000 MΩ (20 °C, 500 VDC, 60 s)	

* In case of applying voltage in alternating current (50 Hz or 60 Hz sine wave) to a capacitor with DC rated voltage, please refer to the page of "Permissible voltage (R.M.S) in alternating current corresponding to DC rated voltage".

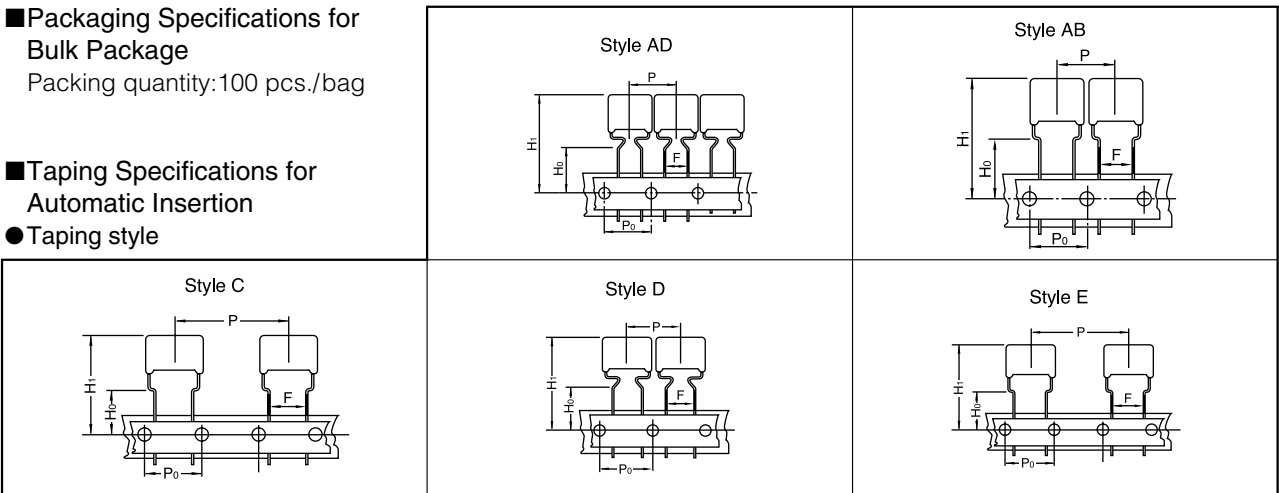
* Voltage to be applied to ECQE1A (T) & ECQE2A (T) is only sine wave (50 Hz or 60 Hz).

■ Dimensions in mm (not to scale)



■ Packaging Specifications for Bulk Package
Packing quantity: 100 pcs./bag

■ Taping Specifications for Automatic Insertion
● Taping style



*Refer to the page of taping specifications.

● Packaging Specifications

Type	Rated volt.	Cap. range (μF)	Taping style					Packing	suffix
			AD	AB	C	D	E		
ECQE(T)	250 VDC	0.010 to 0.15	○					Ammo	() T3
		0.18 to 0.33			○			Ammo	() T3
		0.39 to 1.5			○			Ammo	() T3
		0.010 to 0.33				○		Ammo	R() T
		0.39 to 1.5					○	Ammo	R() T
	400 VDC	0.010 to 0.033	○					Ammo	() T3
		0.039 to 0.10			○			Ammo	() T3
		0.12 to 0.47			○			Ammo	() T3
		0.010 to 0.10				○		Ammo	R() T
		0.12 to 0.47					○	Ammo	R() T
	630 VDC	0.010 to 0.047			○			Ammo	() T3
		0.056 to 0.22			○			Ammo	() T3
		0.010 to 0.047				○		Ammo	R() T
		0.056 to 0.22					○	Ammo	R() T
	125 VAC	0.27 to 0.47			○			Ammo	() T3
		0.010 to 0.10		○				Ammo	() T6
0.12 to 0.22				○			Ammo	() T6	
0.010 to 0.22					○		Ammo	R() T	
0.27 to 0.47						○	Ammo	R() T	
250 VAC	0.056 to 0.22			○			Ammo	() T3	
	0.010 to 0.047			○			Ammo	() T6	
	0.010 to 0.047				○		Ammo	R() T	
	0.056 to 0.22					○	Ammo	R() T	

● Lead Spacing

Style	Lead Spacing
AD	5.0 mm
AB	5.0 mm
C	5.0 mm
D	7.5 mm
E	7.5 mm

*See the column "Rating, Dimensions & Quantity Box" for packing quantity.

■ Rating, Dimensions & Quantity/Ammo Box

● Rated voltage : 250 VDC, Capacitance tolerance : ±5 % (J), ±10 % (K)

Part No	Cap. (μF)	Dimensions (mm)								Quantity				
		L _{max.}	T _{max.}	H _{max.}		F		S		G _{max.}	φd	Ammo 5 mm	Ammo 5 mm	Ammo 7.5 mm
				Straight	Crimped lead	Straight	Crimped lead	Straight	Crimped lead					
ECQE2103□T()	0.010	10.8	4.3	7.4	12.4	7.5	7.5	1.0	0.60	1500	—	1800		
ECQE2123□T()	0.012	10.8	4.4	7.5	12.5	7.5	7.5	1.0	0.60					
ECQE2153□T()	0.015	10.8	4.4	7.5	12.5	7.5	7.5	1.0	0.60					
ECQE2183□T()	0.018	10.8	4.4	7.5	12.5	7.5	7.5	1.0	0.60					
ECQE2223□T()	0.022	10.8	4.4	7.5	12.5	7.5	7.5	1.0	0.60					
ECQE2273□T()	0.027	10.8	4.4	7.5	12.5	7.5	7.5	1.0	0.60					
ECQE2333□T()	0.033	10.8	4.5	7.5	12.5	7.5	7.5	1.0	0.60					
ECQE2393□T()	0.039	10.8	4.5	7.5	12.5	7.5	7.5	1.0	0.60					
ECQE2473□T()	0.047	10.8	4.5	7.5	12.5	7.5	7.5	1.0	0.60					
ECQE2563□T()	0.056	10.8	4.8	7.9	12.9	7.5	7.5	1.0	0.60					
ECQE2683□T()	0.068	10.8	4.5	7.5	12.5	7.5	7.5	1.0	0.60					
ECQE2823□T()	0.082	10.8	4.9	8.0	13.0	7.5	7.5	1.0	0.60					
ECQE2104□T()	0.10	10.8	5.8	8.4	13.4	7.5	7.5	1.0	0.60					
ECQE2124□T()	0.12	10.8	6.0	9.0	14.0	7.5	7.5	1.0	0.60					
ECQE2154□T()	0.15	10.8	6.0	10.8	15.8	7.5	7.5	1.0	0.60					
ECQE2184□T()	0.18	12.5	5.0	10.3	15.3	10.0	10.0	1.0	0.60					
ECQE2224□T()	0.22	12.5	5.5	10.5	15.5	10.0	10.0	1.0	0.60					
ECQE2274□T()	0.27	12.5	6.0	11.5	16.5	10.0	10.0	1.0	0.60					
ECQE2334□T()	0.33	12.5	6.5	12.0	17.0	10.0	10.0	1.0	0.60					
ECQE2394□T()	0.39	19.0	4.9	12.0	17.0	15.0	10.0	1.0	0.60					
ECQE2474□T()	0.47	19.0	5.3	12.5	17.5	15.0	10.0	1.0	0.60					
ECQE2564□T()	0.56	19.0	5.5	13.0	18.0	15.0	10.0	1.0	0.60					
ECQE2684□T()	0.68	19.0	6.0	13.5	18.5	15.0	10.0	1.0	0.80					
ECQE2824□T()	0.82	19.0	6.5	14.5	19.5	15.0	10.0	1.0	0.80					
ECQE2105□T()	1.0	19.0	7.4	15.0	20.0	15.0	10.0	1.0	0.80					
ECQE2125□T()	1.2	19.0	8.0	15.9	20.9	15.0	10.0	1.0	0.80					
ECQE2155□T()	1.5	19.0	9.0	16.8	21.8	15.0	10.0	1.0	0.80					
ECQE2185□T()	1.8	26.5	7.5	15.5	20.5	22.5	15.0	1.0	0.80					
ECQE2225□T()	2.2	26.5	8.5	16.3	21.3	22.5	15.0	1.0	0.80					
ECQE2275□T()	2.7	26.5	9.4	17.0	22.0	22.5	15.0	1.0	0.80					
ECQE2335□T()	3.3	26.5	10.3	18.0	23.0	22.5	15.0	1.5	0.80					
ECQE2395□T()	3.9	26.5	11.0	20.5	25.5	22.5	15.0	1.5	0.80					
ECQE2475□T()	4.7	26.5	12.0	21.5	26.5	22.5	15.0	1.5	0.80					
ECQE2565□T()	5.6	31.5	11.8	21.0	26.0	27.5	22.5	1.5	0.80					
ECQE2685□T()	6.8	31.5	13.0	22.4	27.4	27.5	22.5	1.5	0.80					
ECQE2825□T()	8.2	31.5	14.3	23.5	28.5	27.5	22.5	1.5	0.80					
ECQE2106□T()	10.0	31.5	15.9	25.8	30.8	27.5	22.5	1.5	0.80					

↑ Suffix for lead crimped or taped type
 — Cap. tol. code

style D: 0.010 μF to 0.33 μF
 style B: 0.39 μF to 10.0 μF

■ Rating, Dimensions & Quantity/Ammo Box

● Rated voltage : 400 VDC, Capacitance tolerance : ±5 % (J), ±10 % (K)

Part No.	Cap. (µF)	Dimensions (mm)								Quantity.			
		L _{max.}	T _{max.}	H _{max.}		F	S	G _{max.}	φ d	Standard 5 mm	Odd size 5 mm	Odd size 7.5 mm	
				Straight	Crimped lead								Straight
ECQE4103□T()	0.010	10.8	4.3	7.4	12.4	7.5	7.5	1.0	0.60	1500	—	1800	
ECQE4123□T()	0.012	10.8	4.4	7.5	12.5	7.5	7.5	1.0	0.60			1700	
ECQE4153□T()	0.015	10.8	4.4	7.5	12.5	7.5	7.5	1.0	0.60			1600	
ECQE4183□T()	0.018	10.8	4.4	7.5	12.5	7.5	7.5	1.0	0.60			1400	
ECQE4223□T()	0.022	10.8	4.8	7.9	12.9	7.5	7.5	1.0	0.60			1200	
ECQE4273□T()	0.027	10.8	5.5	8.0	13.0	7.5	7.5	1.0	0.60			—	—
ECQE4333□T()	0.033	10.8	6.0	9.0	14.0	7.5	7.5	1.0	0.60	1000	—	1200	
ECQE4393□T()	0.039	12.5	4.9	8.0	13.0	10.0	10.0	1.0	0.60			—	—
ECQE4473□T()	0.047	12.5	5.0	8.3	13.3	10.0	10.0	1.0	0.60	800	1500		
ECQE4563□T()	0.056	12.5	5.0	10.0	15.0	10.0	10.0	1.0	0.60				
ECQE4683□T()	0.068	12.5	5.4	10.5	15.5	10.0	10.0	1.0	0.60	800	1300		
ECQE4823□T()	0.082	12.5	5.8	11.0	16.0	10.0	10.0	1.0	0.60				
ECQE4104□T()	0.10	12.5	6.3	12.0	17.0	10.0	10.0	1.0	0.60	800	700		
ECQE4124□T()	0.12	19.0	5.0	10.0	15.0	15.0	10.0	1.0	0.60				
ECQE4154□T()	0.15	19.0	5.0	12.4	17.4	15.0	10.0	1.0	0.60	600	500		
ECQE4184□T()	0.18	19.0	5.4	12.5	17.5	15.0	10.0	1.0	0.60				
ECQE4224□T()	0.22	19.0	5.9	13.0	18.0	15.0	10.0	1.0	0.60	—	—		
ECQE4274□T()	0.27	19.0	6.5	14.3	19.3	15.0	10.0	1.0	0.80			500	400
ECQE4334□T()	0.33	19.0	7.0	14.9	19.9	15.0	10.0	1.0	0.80				
ECQE4394□T()	0.39	19.0	7.5	15.4	20.4	15.0	10.0	1.0	0.80			700	600
ECQE4474□T()	0.47	19.0	7.8	17.0	22.0	15.0	10.0	1.0	0.80				
ECQE4564□T()	0.56	26.5	6.5	16.0	21.0	22.5	15.0	1.0	0.80			500	400
ECQE4684□T()	0.68	26.5	7.0	16.5	21.5	22.5	15.0	1.0	0.80				
ECQE4824□T()	0.82	26.5	7.9	17.3	22.3	22.5	15.0	1.0	0.80			—	—
ECQE4105□T()	1.0	26.5	8.5	18.0	23.0	22.5	15.0	1.0	0.80				
ECQE4125□T()	1.2	26.5	9.5	18.9	23.9	22.5	15.0	1.0	0.80			—	—
ECQE4155□T()	1.5	31.5	9.5	19.0	24.0	27.5	22.5	1.0	0.80	—	—		
ECQE4185□T()	1.8	31.5	11.0	20.5	25.5	27.5	22.5	1.5	0.80			—	—
ECQE4225□T()	2.2	31.5	11.0	22.0	27.0	27.5	22.5	1.5	0.80	—	—		

style D:0.010 µF to 0.10 µF
style B:0.12 µF to 2.2 µF

● Rated voltage : 630 VDC, Capacitance tolerance : ±5 % (J), ±10 % (K)

Part No.	Cap. (µF)	Dimensions (mm)								Quantity.			
		L _{max.}	T _{max.}	H _{max.}		F	S	G _{max.}	φ d	Odd size 5 mm	Odd size 7.5 mm		
				Straight	Crimped lead							Straight	Crimped lead
ECQE6103□T()	0.010	12.5	4.5	7.5	12.5	10.0	10.0	1.0	0.60	900	1600		
ECQE6123□T()	0.012	12.5	4.5	7.8	12.8	10.0	10.0	1.0	0.60			800	1400
ECQE6153□T()	0.015	12.5	5.0	8.2	13.2	10.0	10.0	1.0	0.60	1300			
ECQE6183□T()	0.018	12.5	4.9	10.0	15.0	10.0	10.0	1.0	0.60		700		
ECQE6223□T()	0.022	12.5	5.3	10.5	15.5	10.0	10.0	1.0	0.60	600			
ECQE6273□T()	0.027	12.5	5.5	10.9	15.9	10.0	10.0	1.0	0.60		800		
ECQE6333□T()	0.033	12.5	6.0	11.9	16.9	10.0	10.0	1.0	0.60	700			
ECQE6393□T()	0.039	12.5	6.0	13.4	18.4	10.0	10.0	1.0	0.60		600	1100	
ECQE6473□T()	0.047	12.5	6.5	13.5	18.5	10.0	10.0	1.0	0.60	800			600
ECQE6563□T()	0.056	19.0	5.4	10.5	15.5	15.0	10.0	1.0	0.60		700	600	
ECQE6683□T()	0.068	19.0	5.8	11.0	16.0	15.0	10.0	1.0	0.60	600			500
ECQE6823□T()	0.082	19.0	6.5	12.0	17.0	15.0	10.0	1.0	0.60		500	400	
ECQE6104□T()	0.10	19.0	6.3	14.0	19.0	15.0	10.0	1.0	0.60	400			—
ECQE6124□T()	0.12	19.0	6.3	14.5	19.5	15.0	10.0	1.0	0.80		—	—	
ECQE6154□T()	0.15	19.0	7.5	15.4	20.4	15.0	10.0	1.0	0.80	—			—
ECQE6184□T()	0.18	19.0	8.0	16.0	21.0	15.0	10.0	1.0	0.80		—	—	
ECQE6224□T()	0.22	19.0	9.0	16.5	21.5	15.0	10.0	1.0	0.80	—			—
ECQE6274□T()	0.27	26.5	7.0	16.5	21.5	22.5	15.0	1.0	0.80		—	—	
ECQE6334□T()	0.33	26.5	7.8	17.0	22.0	22.5	15.0	1.0	0.80	—			—
ECQE6394□T()	0.39	26.5	8.5	17.9	22.9	22.5	15.0	1.0	0.80		—	—	
ECQE6474□T()	0.47	26.5	9.3	18.5	23.5	22.5	15.0	1.0	0.80	—			—
ECQE6564□T()	0.56	26.5	10.0	20.0	25.0	22.5	15.0	1.5	0.80		—	—	
ECQE6684□T()	0.68	26.5	11.5	21.0	26.0	22.5	15.0	1.5	0.80	—			—
ECQE6824□T()	0.82	31.5	11.3	20.5	25.5	27.5	22.5	1.5	0.80		—	—	
ECQE6105□T()	1.0	31.5	12.5	21.9	26.9	27.5	22.5	1.5	0.80	—			—
ECQE6125□T()	1.2	31.5	13.5	23.0	28.0	27.5	22.5	1.5	0.80		—	—	
ECQE6155□T()	1.5	31.5	15.3	24.7	29.7	27.5	22.5	1.5	0.80	—			—
ECQE6185□T()	1.8	31.5	16.8	27.0	32.0	27.5	22.5	1.5	0.80		—	—	
ECQE6225□T()	2.2	31.5	19.5	29.0	34.0	27.5	22.5	1.5	0.80	—			—

← Suffix for lead crimped or taped type.
← Cap. tol. code

style D:0.010 µF to 0.047 µF
style B:0.056 µF to 2.2 µF

■ Rating, Dimensions & Quantity/Ammo Box

● Rated voltage : 125 VAC, Capacitance tolerance : ±5 % (J), ±10 % (K)

Noise suppression Capacitors (Across-the-line)

Part No.	Cap. (μF)	Dimensions (mm)								Quantity.			
		L _{max.}	T _{max.}	H _{max.}		F		S	G _{max.}	φ d	Standard 5 mm	Odd size 5 mm	Odd size 7.5 mm
				Straight	Crimped lead	Straight	Crimped lead	Straight					
ECQE1A103□T()	0.010	11.0	4.5	7.5	12.5	7.5	7.5	1.0	0.60	1500	—	1700	
ECQE1A123□T()	0.012	11.0	4.4	7.5	12.5	7.5	7.5	1.0	0.60				
ECQE1A153□T()	0.015	11.0	4.4	7.5	12.5	7.5	7.5	1.0	0.60				
ECQE1A183□T()	0.018	11.0	4.4	7.5	12.5	7.5	7.5	1.0	0.60				
ECQE1A223□T()	0.022	11.0	4.4	7.5	12.5	7.5	7.5	1.0	0.60				
ECQE1A273□T()	0.027	11.0	4.4	7.5	12.5	7.5	7.5	1.0	0.60				
ECQE1A333□T()	0.033	11.0	4.5	7.8	12.8	7.5	7.5	1.0	0.60				
ECQE1A393□T()	0.039	11.0	4.5	7.8	12.8	7.5	7.5	1.0	0.60				
ECQE1A473□T()	0.047	11.0	5.5	8.0	13.0	7.5	7.5	1.0	0.60				
ECQE1A563□T()	0.056	11.0	5.9	8.5	13.5	7.5	7.5	1.0	0.60				
ECQE1A683□T()	0.068	11.0	6.3	9.4	14.4	7.5	7.5	1.0	0.60				
ECQE1A823□T()	0.082	11.0	6.5	9.8	14.8	7.5	7.5	1.0	0.60				
ECQE1A104□T()	0.10	11.0	6.5	11.8	16.8	7.5	7.5	1.0	0.60				
ECQE1A124□T()	0.12	13.0	5.9	11.5	16.5	10.0	10.0	1.0	0.60				
ECQE1A154□T()	0.15	13.0	6.5	12.0	17.0	10.0	10.0	1.0	0.60				
ECQE1A184□T()	0.18	13.0	7.0	12.5	17.5	10.0	10.0	1.0	0.60				
ECQE1A224□T()	0.22	13.0	7.5	13.4	18.4	10.0	10.0	1.0	0.60				
ECQE1A274□T()	0.27	19.0	6.3	12.0	17.0	15.0	10.0	1.0	0.60				
ECQE1A334□T()	0.33	19.0	6.9	12.5	17.5	15.0	10.0	1.0	0.60				
ECQE1A394□T()	0.39	19.0	7.4	13.0	18.0	15.0	10.0	1.0	0.60				
ECQE1A474□T()	0.47	19.0	7.5	15.3	20.3	15.0	10.0	1.0	0.60				

style D:0.010 μF to 0.22 μF
style B:0.27 μF to 0.47 μF

● Rated voltage : 250 VAC, Capacitance tolerance : ±5 % (J), ±10 % (K)

Noise suppression Capacitors (Across-the-line)

Part No.	Cap. (μF)	Dimensions (mm)								Quantity.		
		L _{max.}	T _{max.}	H _{max.}		F		S	G _{max.}	φ d	Odd size 5 mm	Odd size 7.5 mm
				Straight	Crimped lead	Straight	Crimped lead	Straight				
ECQE2A103□T()	0.010	13.0	5.5	10.8	15.8	10.0	10.0	1.0	0.60	800	1300	
ECQE2A123□T()	0.012	13.0	6.0	11.5	16.5	10.0	10.0	1.0	0.60	700	1200	
ECQE2A153□T()	0.015	13.0	6.3	9.9	14.9	10.0	10.0	1.0	0.60	600	1100	
ECQE2A183□T()	0.018	13.0	6.0	11.9	16.9	10.0	10.0	1.0	0.60	700	1200	
ECQE2A223□T()	0.022	13.0	6.0	11.5	16.5	10.0	10.0	1.0	0.60			
ECQE2A273□T()	0.027	13.0	5.5	10.9	15.9	10.0	10.0	1.0	0.60	800	1300	
ECQE2A333□T()	0.033	13.0	6.0	11.9	16.9	10.0	10.0	1.0	0.60	700	1200	
ECQE2A393□T()	0.039	13.0	6.0	13.4	18.4	10.0	10.0	1.0	0.60			
ECQE2A473□T()	0.047	13.0	6.5	14.4	19.4	10.0	10.0	1.0	0.60	600	1100	
ECQE2A563□T()	0.056	19.0	5.4	10.5	15.5	15.0	10.0	1.0	0.60	800	600	
ECQE2A683□T()	0.068	19.0	5.8	11.0	16.0	15.0	10.0	1.0	0.60			
ECQE2A823□T()	0.082	19.0	6.3	12.0	17.0	15.0	10.0	1.0	0.60	600	500	
ECQE2A104□T()	0.10	19.0	6.3	14.0	19.0	15.0	10.0	1.0	0.60			
ECQE2A124□T()	0.12	19.0	6.8	14.5	19.5	15.0	10.0	1.0	0.80			
ECQE2A154□T()	0.15	19.0	7.5	15.4	20.4	15.0	10.0	1.0	0.80	500	400	
ECQE2A184□T()	0.18	19.0	8.0	16.0	21.0	15.0	10.0	1.0	0.80			
ECQE2A224□T()	0.22	19.0	9.0	16.9	21.9	15.0	10.0	1.0	0.80	400	—	
ECQE2A274□T()	0.27	26.5	7.0	16.5	21.5	22.5	15.0	1.0	0.80			
ECQE2A334□T()	0.33	26.5	7.8	17.0	22.0	22.5	15.0	1.0	0.80			
ECQE2A394□T()	0.39	26.5	8.5	17.9	22.9	22.5	15.0	1.0	0.80			
ECQE2A474□T()	0.47	26.5	9.3	18.5	23.5	22.5	15.0	1.0	0.80			

└ Suffix for lead crimped or taped type.
└ Cap. tol. code

Style D:0.010 μF to 0.047 μF
Style B:0.056 μF to 0.47 μF

Notice for AC rated

AC rated capacitors complying with clause 1 of "Electrical Appliance and Material Safety Law".

As for clause 2 of "Electrical Appliance and Material Safety Law", please use ECQUL type or ECQUG type.

When using these capacitors as a across-the-line capacitor, it shall be required to follow either item 1. or item 2. condition.

1. Capacitor shall be connected in parallel with varistor (Specified varistor voltage in table 1.)
2. Voltage applied for capacitor shall not exceed other than specified in table 1, when using these capacitors.

Table 1

Cap. Rated Voltage	Varistor voltage	Pulse voltage
125 VAC	250 V	250 V _{0-P}
250 VAC	470 V	630 V _{0-P}