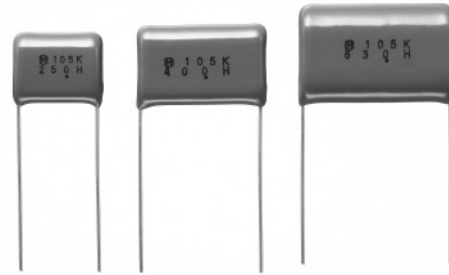


### Metallized Polyester Film Capacitor

Type: **ECQE(F)**

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
- RoHS directive compliant

#### ■ Recommended Applications

- General purpose usage
- ✳ Please contact us when applications are CD I , ignitor etc.

#### ■ Explanation of Part Numbers

1	2	3	4	5	6	7	8	9	10	11	12																															
<b>E</b>	<b>C</b>	<b>Q</b>	<b>E</b>							<b>F</b>																																
Product code		Dielectric & construction		Rated volt.		Capacitance			Cap. Tol.	Suffix	Suffix																															
				<table border="1"> <tr><td>1</td><td>100 VDC</td><td>10</td><td>1000 VDC</td></tr> <tr><td>2</td><td>250 VDC</td><td>12</td><td>1250 VDC</td></tr> <tr><td>4</td><td>400 VDC</td><td>1A</td><td>125 VAC</td></tr> <tr><td>6</td><td>630 VDC</td><td>2A</td><td>250 VAC</td></tr> </table>		1	100 VDC	10	1000 VDC	2	250 VDC	12	1250 VDC	4	400 VDC	1A	125 VAC	6	630 VDC	2A	250 VAC	<table border="1"> <tr><td>J</td><td>±5 %</td></tr> <tr><td>K</td><td>±10 %</td></tr> </table>			J	±5 %	K	±10 %	<table border="1"> <tr><th>Suffix</th><th>Lead Form</th></tr> <tr><td>Blank</td><td>Straight</td></tr> <tr><td>B</td><td>Crimped lead</td></tr> <tr><td>Z</td><td>Cut lead</td></tr> <tr><td>3</td><td>Crimped taping (Ammo)</td></tr> <tr><td>6</td><td>Crimped taping (Ammo)</td></tr> </table>		Suffix	Lead Form	Blank	Straight	B	Crimped lead	Z	Cut lead	3	Crimped taping (Ammo)	6	Crimped taping (Ammo)
1	100 VDC	10	1000 VDC																																							
2	250 VDC	12	1250 VDC																																							
4	400 VDC	1A	125 VAC																																							
6	630 VDC	2A	250 VAC																																							
J	±5 %																																									
K	±10 %																																									
Suffix	Lead Form																																									
Blank	Straight																																									
B	Crimped lead																																									
Z	Cut lead																																									
3	Crimped taping (Ammo)																																									
6	Crimped taping (Ammo)																																									

#### ● Explanation of Part Number for Odd Size Taping

1	2	3	4	5	6	7	8	9	10	11	12	
<b>E</b>	<b>C</b>	<b>Q</b>	<b>E</b>							<b>R</b>		<b>F</b>
Product code		Dielectric & construction		Rated volt.		Capacitance			Suffix	Cap. Tol.	Suffix	

#### ■ Specifications

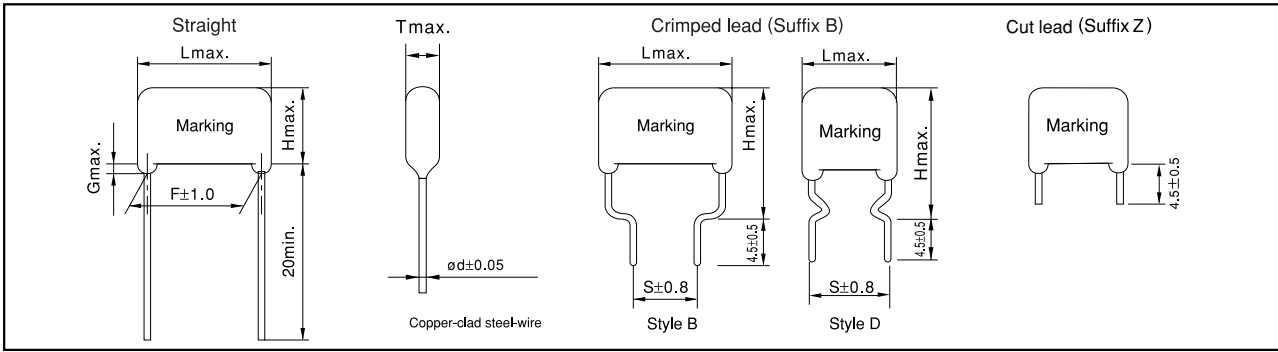
Category temp. range (Including temperature-rise on unit surface)	100 VDC, 250 VDC, 400 VDC, 630 VDC, 1000 VDC, 1250 VDC,	-40 °C to +105 °C
	125 VAC, 250 VAC	-40 °C to +105 °C
Rated voltage	100 VDC, 250 VDC, 400 VDC, 630 VDC, 1000 VDC, 1250 VDC, (Derating of rated voltage by 1.25 %/°C at more than 85 °C) 125 VAC, 250 VAC	
Capacitance range	0.0010 μF to 10 μF (E12)	
Capacitance tolerance	±5 % (J), ±10 % (K)	
Dissipation factor (tan δ)	tan δ ≤ 1.0 % (20 °C, 1 kHz)	
Withstand voltage	<ul style="list-style-type: none"> <li>● Rated volt. 100 V to 630 VDC Between terminals : Rated volt.(VDC)×150 % 60 s</li> </ul>	
	<ul style="list-style-type: none"> <li>● Rated volt. 1000 VDC, 1250 VDC Between terminals : Rated volt. (VDC)×175 % 2 s to 5 s or 1000 VAC 60 s Between terminals to enclosure : 1500 VAC 60 s</li> </ul>	
	<ul style="list-style-type: none"> <li>● Rated volt. 125 VAC, 250 VAC Between terminals : Rated volt.(VAC)×230 % 60 s Between terminals to enclosure : 1500 VAC 60 s</li> </ul>	
Insulation resistance (IR)	100 V to 630 VDC:	C ≤ 0.33 μF : IR ≥ 9000 MΩ (20 °C, 100 VDC, 60 s) C > 0.33 μF : IR ≥ 3000 MΩ · μF
	1000 VDC, 1250 VDC:	IR ≥ 10000 MΩ (20 °C, 100 VDC, 60 s) IR ≥ 2000 MΩ (20 °C, 500 VDC, 60 s)
	125 VAC, 250 VAC:	C ≤ 0.47 μF : IR ≥ 2000 MΩ (20 °C, 500 VDC, 60 s) C > 0.47 μF : IR ≥ 3000 MΩ · μF (20 °C, 100 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 (F) & ECQE2A (F) is only sine wave (50 Hz or 60 Hz).

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.

### ■ Dimensions in mm (not to scale)

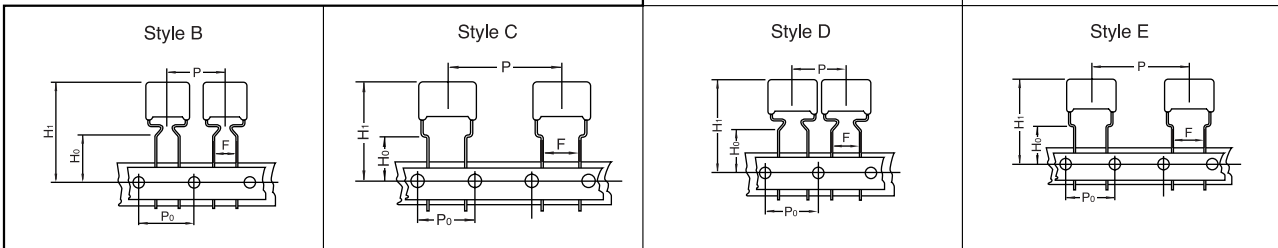


### ■ Packaging Specifications for Bulk Package

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	AS	AB	B	C	D	E		
ECQE (F)	100 VDC	0.56 to 0.68	○							Ammo	( ) F3
		0.82 to 1.0				○				Ammo	( ) F3
		1.2 to 3.3						○		Ammo	( ) F3
		1.2 to 3.3							○	Ammo	R( ) F
	250 VDC	0.010 to 0.27	○							Ammo	( ) F3
		0.33				○				Ammo	( ) F3
		0.39 to 1.5					○			Ammo	( ) F3
		0.010 to 0.33						○		Ammo	R( ) F
	400 VDC	0.39 to 1.5							○	Ammo	R( ) F
		0.010 to 0.10	○							Ammo	( ) F3
		0.12 to 0.47					○			Ammo	( ) F3
		0.010 to 0.10						○		Ammo	R( ) F
	630 VDC	0.12 to 0.47							○	Ammo	R( ) F
		0.0010 to 0.033	○							Ammo	( ) F3
		0.039 to 0.047				○				Ammo	( ) F3
		0.056 to 0.22					○			Ammo	( ) F3
	1000 VDC	0.0010 to 0.047						○		Ammo	R( ) F
		0.056 to 0.22							○	Ammo	R( ) F
	1250 VDC	0.010 to 0.10						○	Ammo	R( ) F	
	125 VAC	0.010 to 0.022							○	Ammo	R( ) F
0.010 to 0.068					○				Ammo	( ) F6	
250 VAC	0.010 to 0.068						○		Ammo	R( ) F	
	0.010 to 0.033				○				Ammo	( ) F6	
	0.010 to 0.047						○		Ammo	R( ) F	
	0.056 to 0.22							○	Ammo	R( ) F	

#### ● Lead Spacing

Style	Lead Spacing
AD	5.0 mm
AB	5.0 mm
B	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.

Metallized Film

■ Rating, Dimensions & Quantity/Ammo Box

● Rated voltage : 100 VDC, Capacitance tolerance : ± 5 % (J), ± 10 % (K)

Part No.	Cap. (μF)	Dimensions (mm)								Min. order Q'ty			Bulk
		L max.	T max.	H max.		F	S	G max.	ø d	Taping			
				Straight	Crimped lead					Standard 5 mm	Odd size 5 mm	Odd size 7.5 mm	
ECQE1564□F( )	0.56	12.0	5.5	10.9	15.9	10.0	10.0	1.0	0.60	500	—	—	500
ECQE1684□F( )	0.68	12.0	6.0	11.9	16.9	10.0	10.0	1.0	0.60				
ECQE1824□F( )	0.82	12.0	6.0	13.5	18.5	10.0	10.0	1.0	0.60	—	1,000	—	
ECQE1105□F( )	1.0	12.0	6.7	14.0	19.0	10.0	10.0	1.0	0.60				
ECQE1125□F( )	1.2	18.5	5.5	12.8	17.8	15.0	10.0	1.0	0.60				
ECQE1155□F( )	1.5	18.5	6.0	13.4	18.4	15.0	10.0	1.0	0.80				
ECQE1185□F( )	1.8	18.5	6.5	14.4	19.4	15.0	10.0	1.0	0.80				
ECQE1225□F( )	2.2	18.5	7.0	15.0	20.0	15.0	10.0	1.0	0.80				
ECQE1275□F( )	2.7	18.5	8.0	15.8	20.8	15.0	10.0	1.0	0.80				
ECQE1335□F( )	3.3	18.5	8.5	16.5	21.5	15.0	10.0	1.0	0.80				
ECQE1395□F( )	3.9	26.0	7.0	16.4	21.4	22.5	15.0	1.0	0.80				
ECQE1475□F( )	4.7	26.0	7.5	17.0	22.0	22.5	15.0	1.0	0.80				
ECQE1565□F( )	5.6	26.0	8.3	17.5	22.5	22.5	15.0	1.0	0.80				
ECQE1685□F( )	6.8	26.0	9.0	18.5	23.5	22.5	15.0	1.0	0.80				
ECQE1825□F( )	8.2	26.0	10.0	20.0	25.0	22.5	15.0	1.5	0.80				
ECQE1106□F( )	10.0	26.0	11.5	21.0	26.0	22.5	15.0	1.5	0.80				

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

style D: 0.056 μF to 1.0 μF  
 style B: 1.2 μF to 10.0 μF

■ Rating, Dimensions & Quantity/Ammo Box

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

Part No.	Cap. (μF)	Dimensions (mm)								Min. order Q'ty			Bulk
		L max.	T max.	H max.		F	S	G max.	ø d	Taping			
				Straight	Crimped lead					Standard 5 mm	Odd size 5 mm	Odd size 7.5 mm	
ECQE2103□F( )	0.010	10.3	4.3	7.4	12.4	7.5	7.5	1.0	0.60	1000	—	1000	500
ECQE2123□F( )	0.012	10.3	4.4	7.5	12.5	7.5	7.5	1.0	0.60				
ECQE2153□F( )	0.015	10.3	4.4	7.5	12.5	7.5	7.5	1.0	0.60				
ECQE2183□F( )	0.018	10.3	4.4	7.5	12.5	7.5	7.5	1.0	0.60				
ECQE2223□F( )	0.022	10.3	4.4	7.5	12.5	7.5	7.5	1.0	0.60				
ECQE2273□F( )	0.027	10.3	4.4	7.5	12.5	7.5	7.5	1.0	0.60				
ECQE2333□F( )	0.033	10.3	4.5	7.5	12.5	7.5	7.5	1.0	0.60				
ECQE2393□F( )	0.039	10.3	4.5	7.5	12.5	7.5	7.5	1.0	0.60				
ECQE2473□F( )	0.047	10.3	4.5	7.5	12.5	7.5	7.5	1.0	0.60				
ECQE2563□F( )	0.056	10.3	4.8	7.9	12.9	7.5	7.5	1.0	0.60				
ECQE2683□F( )	0.068	10.3	4.5	7.5	12.5	7.5	7.5	1.0	0.60				
ECQE2823□F( )	0.082	10.3	4.9	8.0	13.0	7.5	7.5	1.0	0.60				
ECQE2104□F( )	0.10	10.3	5.8	8.4	13.4	7.5	7.5	1.0	0.60				
ECQE2124□F( )	0.12	10.3	6.0	9.0	14.0	7.5	7.5	1.0	0.60				
ECQE2154□F( )	0.15	10.3	6.0	10.8	15.8	7.5	7.5	1.0	0.60				
ECQE2184□F( )	0.18	12.0	5.0	10.3	15.3	10.0	10.0	1.0	0.60				
ECQE2224□F( )	0.22	12.0	5.5	10.5	15.5	10.0	10.0	1.0	0.60				
ECQE2274□F( )	0.27	12.0	6.0	11.5	16.5	10.0	10.0	1.0	0.60				
ECQE2334□F( )	0.33	12.0	6.5	12.0	17.0	10.0	10.0	1.0	0.60				
ECQE2394□F( )	0.39	18.5	4.9	12.0	17.0	15.0	10.0	1.0	0.60				
ECQE2474□F( )	0.47	18.5	5.3	12.5	17.5	15.0	10.0	1.0	0.60				
ECQE2564□F( )	0.56	18.5	5.5	13.0	18.0	15.0	10.0	1.0	0.60				
ECQE2684□F( )	0.68	18.5	6.0	13.5	18.5	15.0	10.0	1.0	0.80				
ECQE2824□F( )	0.82	18.5	6.5	14.5	19.5	15.0	10.0	1.0	0.80				
ECQE2105□F( )	1.0	18.5	7.4	15.0	20.0	15.0	10.0	1.0	0.80				
ECQE2125□F( )	1.2	18.5	8.0	15.9	20.9	15.0	10.0	1.0	0.80				
ECQE2155□F( )	1.5	18.5	9.0	16.8	21.8	15.0	10.0	1.0	0.80				
ECQE2185□F( )	1.8	26.0	7.5	15.5	20.5	22.5	15.0	1.0	0.80				
ECQE2225□F( )	2.2	26.0	8.5	16.3	21.3	22.5	15.0	1.0	0.80				
ECQE2275□F( )	2.7	26.0	9.4	17.0	22.0	22.5	15.0	1.0	0.80				
ECQE2335□F( )	3.3	26.0	10.3	18.0	23.0	22.5	15.0	1.5	0.80				
ECQE2395□F( )	3.9	26.0	11.0	20.5	25.5	22.5	15.0	1.5	0.80				
ECQE2475□F( )	4.7	26.0	12.0	21.5	26.5	22.5	15.0	1.5	0.80				
ECQE2565□F( )	5.6	31.0	11.8	21.0	26.0	27.5	22.5	1.5	0.80				
ECQE2685□F( )	6.8	31.0	13.0	22.4	27.4	27.5	22.5	1.5	0.80				
ECQE2825□F( )	8.2	31.0	14.3	23.5	28.5	27.5	22.5	1.5	0.80				
ECQE2106□F( )	10.0	31.0	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

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.

■ Rating, Dimensions & Quantity/Ammo Box

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

Part No.	Cap. (μF)	Dimensions (mm)								Min. order Q'ty			Bulk			
		L <sub>max.</sub>	T <sub>max.</sub>	H <sub>max.</sub>		F		S	G <sub>max.</sub>	φd	Taping					
				Straight	Crimped lead	Straight	Crimped lead	Straight	Standard 5 mm		Odd size 5 mm	Odd size 7.5 mm				
ECQE4103□F( )	0.010	10.3	4.3	7.4	12.4	7.5	7.5	1.0	0.60	1000	—	1000	500			
ECQE4123□F( )	0.012	10.3	4.4	7.5	12.5	7.5	7.5	1.0	0.60							
ECQE4153□F( )	0.015	10.3	4.4	7.5	12.5	7.5	7.5	1.0	0.60							
ECQE4183□F( )	0.018	10.3	4.4	7.5	12.5	7.5	7.5	1.0	0.60							
ECQE4223□F( )	0.022	10.3	4.8	7.9	12.9	7.5	7.5	1.0	0.60							
ECQE4273□F( )	0.027	10.3	5.5	8.0	13.0	7.5	7.5	1.0	0.60							
ECQE4333□F( )	0.033	10.3	6.0	9.0	14.0	7.5	7.5	1.0	0.60	500	—	1000				
ECQE4393□F( )	0.039	12.0	4.9	8.0	13.0	10.0	10.0	1.0	0.60							
ECQE4473□F( )	0.047	12.0	5.0	8.3	13.3	10.0	10.0	1.0	0.60							
ECQE4563□F( )	0.056	12.0	5.0	10.0	15.0	10.0	10.0	1.0	0.60							
ECQE4683□F( )	0.068	12.0	5.4	10.5	15.5	10.0	10.0	1.0	0.60							
ECQE4823□F( )	0.082	12.0	5.8	11.0	16.0	10.0	10.0	1.0	0.60							
ECQE4104□F( )	0.10	12.0	6.3	12.0	17.0	10.0	10.0	1.0	0.60	500	500	500				
ECQE4124□F( )	0.12	18.5	5.0	10.0	15.0	15.0	10.0	1.0	0.60							
ECQE4154□F( )	0.15	18.5	5.0	12.4	17.4	15.0	10.0	1.0	0.60							
ECQE4184□F( )	0.18	18.5	5.4	12.5	17.5	15.0	10.0	1.0	0.60							
ECQE4224□F( )	0.22	18.5	5.9	13.0	18.0	15.0	10.0	1.0	0.60							
ECQE4274□F( )	0.27	18.5	6.5	14.3	19.3	15.0	10.0	1.0	0.80							
ECQE4334□F( )	0.33	18.5	7.0	14.9	19.9	15.0	10.0	1.0	0.80							
ECQE4394□F( )	0.39	18.5	7.5	15.4	20.4	15.0	10.0	1.0	0.80							
ECQE4474□F( )	0.47	18.5	7.8	17.0	22.0	15.0	10.0	1.0	0.80							
ECQE4564□F( )	0.56	26.0	6.5	16.0	21.0	22.5	15.0	1.0	0.80					—	—	400
ECQE4684□F( )	0.68	26.0	7.0	16.5	21.5	22.5	15.0	1.0	0.80							
ECQE4824□F( )	0.82	26.0	7.9	17.3	22.3	22.5	15.0	1.0	0.80							
ECQE4105□F( )	1.0	26.0	8.5	18.0	23.0	22.5	15.0	1.0	0.80							
ECQE4125□F( )	1.2	26.0	9.5	18.9	23.9	22.5	15.0	1.0	0.80							
ECQE4155□F( )	1.5	31.0	9.5	19.0	24.0	27.5	22.5	1.0	0.80							
ECQE4185□F( )	1.8	31.0	11.0	20.5	25.5	27.5	22.5	1.5	0.80	—	—	—				
ECQE4225□F( )	2.2	31.0	11.0	22.0	27.0	27.5	22.5	1.5	0.80							

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

style D: 0.010 μF to 0.10 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)								Min. order Q'ty				
		L max.	T max.	H max.		F		S	G max.	φ d	Taping			Bulk
				Straight	Crimped lead	Straight	Crimped lead	Straight	Standard 5 mm		Odd size 5 mm	Odd size 7.5 mm		
ECQE6102□F( )	0.0010	10.0	4.5	9.5	14.5	7.5	5.0	1.0	0.60	1000	—	1000		
ECQE6122□F( )	0.0012	10.0	4.5	10.0	15.0	7.5	5.0	1.0	0.60					
ECQE6152□F( )	0.0015	10.0	4.5	10.0	15.0	7.5	5.0	1.0	0.60					
ECQE6182□F( )	0.0018	10.0	4.5	10.0	15.0	7.5	5.0	1.0	0.60					
ECQE6222□F( )	0.0022	10.0	4.5	10.0	15.0	7.5	5.0	1.0	0.60					
ECQE6272□F( )	0.0027	10.0	4.5	10.0	15.0	7.5	5.0	1.0	0.60					
ECQE6332□F( )	0.0033	10.0	4.5	10.0	15.0	7.5	5.0	1.0	0.60					
ECQE6392□F( )	0.0039	10.0	4.5	10.0	15.0	7.5	5.0	1.0	0.60					
ECQE6472□F( )	0.0047	12.0	4.5	10.0	15.0	10.0	7.5	1.0	0.60					
ECQE6562□F( )	0.0056	12.0	4.5	10.0	15.0	10.0	7.5	1.0	0.60					
ECQE6682□F( )	0.0068	12.0	4.9	10.0	15.0	10.0	7.5	1.0	0.60					
ECQE6822□F( )	0.0082	12.0	4.5	10.0	15.0	10.0	7.5	1.0	0.60					
ECQE6103□F( )	0.010	12.0	4.5	7.5	12.5	10.0	10.0	1.0	0.60					
ECQE6123□F( )	0.012	12.0	4.5	7.8	12.8	10.0	10.0	1.0	0.60					
ECQE6153□F( )	0.015	12.0	5.0	8.2	13.2	10.0	10.0	1.0	0.60					
ECQE6183□F( )	0.018	12.0	4.9	10.0	15.0	10.0	10.0	1.0	0.60					
ECQE6223□F( )	0.022	12.0	5.3	10.5	15.5	10.0	10.0	1.0	0.60					
ECQE6273□F( )	0.027	12.0	5.5	10.9	15.9	10.0	10.0	1.0	0.60					
ECQE6333□F( )	0.033	12.0	6.0	11.9	16.9	10.0	10.0	1.0	0.60	500	1000	500		
ECQE6393□F( )	0.039	12.0	6.0	13.4	18.4	10.0	10.0	1.0	0.60					
ECQE6473□F( )	0.047	12.0	6.5	13.5	18.5	10.0	10.0	1.0	0.60					
ECQE6563□F( )	0.056	18.5	5.4	10.5	15.5	15.0	10.0	1.0	0.60					
ECQE6683□F( )	0.068	18.5	5.8	11.0	16.0	15.0	10.0	1.0	0.60					
ECQE6823□F( )	0.082	18.5	6.5	12.0	17.0	15.0	10.0	1.0	0.60					
ECQE6104□F( )	0.10	18.5	6.3	14.0	19.0	15.0	10.0	1.0	0.60					
ECQE6124□F( )	0.12	18.5	6.3	14.5	19.5	15.0	10.0	1.0	0.80					
ECQE6154□F( )	0.15	18.5	7.5	15.4	20.4	15.0	10.0	1.0	0.80					
ECQE6184□F( )	0.18	18.5	8.0	16.0	21.0	15.0	10.0	1.0	0.80					
ECQE6224□F( )	0.22	18.5	9.0	16.5	21.5	15.0	10.0	1.0	0.80					
ECQE6274□F( )	0.27	26.0	7.0	16.5	21.5	22.5	15.0	1.0	0.80					
ECQE6334□F( )	0.33	26.0	7.8	17.0	22.0	22.5	15.0	1.0	0.80					
ECQE6394□F( )	0.39	26.0	8.5	17.9	22.9	22.5	15.0	1.0	0.80					
ECQE6474□F( )	0.47	26.0	9.3	18.5	23.5	22.5	15.0	1.0	0.80					
ECQE6564□F( )	0.56	26.0	10.0	20.0	25.0	22.5	15.0	1.5	0.80					
ECQE6684□F( )	0.68	26.0	11.5	21.0	26.0	22.5	15.0	1.5	0.80					
ECQE6824□F( )	0.82	31.0	11.3	20.5	25.5	27.5	22.5	1.5	0.80					
ECQE6105□F( )	1.0	31.0	12.5	21.9	26.9	27.5	22.5	1.5	0.80					
ECQE6125□F( )	1.2	31.0	13.5	23.0	28.0	27.5	22.5	1.5	0.80					
ECQE6155□F( )	1.5	31.0	15.3	24.7	29.7	27.5	22.5	1.5	0.80					
ECQE6185□F( )	1.8	31.0	16.8	27.0	32.0	27.5	22.5	1.5	0.80					
ECQE6225□F( )	2.2	31.0	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: 0.0010 μF to 0.0082 μF, 0.056 μF to 2.2 μF

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.

■ Rating, Dimensions & Quantity/Ammo Box

● Rated voltage : 1000 VDC, (Note) 125 VAC, Capacitance tolerance : ±5 % (J), ±10 % (K)

Part No.	Cap. (μF)	Dimensions (mm)								Min. order Q'ty			
		L <sub>max.</sub>	T <sub>max.</sub>	H <sub>max.</sub>		F		S		G <sub>max.</sub>	ø d	Taping 7.5 mm	Bulk
				Straight	Crimped lead	Straight	Crimped lead	Straight	Crimped lead				
ECQE10103□F( )	0.010	15.5	6.0	11.0	16.0	12.5	12.5	1.0	0.60	500	500		
ECQE10123□F( )	0.012	15.5	6.0	12.0	17.0	12.5	12.5	1.0	0.60				
ECQE10153□F( )	0.015	15.5	7.0	12.5	17.5	12.5	12.5	1.0	0.60				
ECQE10183□F( )	0.018	15.5	7.5	13.0	20.0	12.5	12.5	1.0	0.80	400			
ECQE10223□F( )	0.022	15.5	7.5	15.5	22.5	12.5	12.5	1.0	0.80	500			
ECQE10273□F( )	0.027	21.0	6.0	13.0	18.0	17.5	12.5	1.0	0.80				
ECQE10333□F( )	0.033	21.0	6.5	14.0	19.0	17.5	12.5	1.0	0.80				
ECQE10393□F( )	0.039	21.0	7.0	14.5	19.5	17.5	12.5	1.0	0.80	400			
ECQE10473□F( )	0.047	21.0	7.5	15.5	20.5	17.5	12.5	1.0	0.80				
ECQE10563□F( )	0.056	21.0	7.5	17.0	22.0	17.5	12.5	1.0	0.80				
ECQE10683□F( )	0.068	21.0	8.5	18.0	23.0	17.5	12.5	1.0	0.80	300			
ECQE10823□F( )	0.082	21.0	9.0	18.5	23.5	17.5	12.5	1.0	0.80				
ECQE10104□F( )	0.10	21.0	10.0	20.0	25.0	17.5	12.5	1.0	0.80				
ECQE10124□F( )	0.12	26.0	9.0	18.5	23.5	22.5	17.5	1.0	0.80	—			
ECQE10154□F( )	0.15	26.0	10.0	20.0	25.0	22.5	17.5	1.5	0.80				
ECQE10184□F( )	0.18	26.0	10.5	22.0	27.0	22.5	17.5	1.5	0.80				
ECQE10224□F( )	0.22	26.0	12.0	23.0	28.0	22.5	17.5	1.5	0.80				

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

Style D: 0.010 μF to 0.022 μF  
 Style B: 0.027 μF to 0.22 μF

Note) This type has two rated voltage, one is DC rated voltage another is AC rated voltage..

DC rated voltage is 1000 V, AC rated voltage is 125 V.

Making for rated voltage is 「1000 V, 125 V $\sim$ 」

When capacitors use in secondary side of power source, and in case of applying voltage in altering current (50 Hz or 60 Hz sine wave) to a capacitor, please refer to the page of "Permissible voltage (R.M.S) in altering current corresponding to DC rated voltage".

When capacitors use in primary side of power source, the rated voltage is shown 125 VAC. Voltage to be applied to capacitors in only sine wave (50 Hz or 60 Hz).

AC rated capacitors complying with clause 1 of "Electrical Appliance and Material Safety Law". And not complying with clause 2 of "Electrical Appliance and Material Safety Law", in this case please use ECQUL type or ECQUG type



■ Rating, Dimensions & Quantity/Ammo Box

● Rated voltage : 1250 VDC, (Note) 125 VAC, Capacitance tolerance : ±5 % (J), ±10 % (K)

Part No.	Cap. ( $\mu$ F)	Dimensions (mm)								Min. order Q'ty	
		L <sub>max.</sub>	T <sub>max.</sub>	H <sub>max.</sub>		F	S	G <sub>max.</sub>	$\phi$ d	Taping 7.5 mm	Bulk
				Straight	Crimped lead						
ECQE12102□F( )	0.0010	15.5	6.0	11.0	16.0	12.5	10.0	1.0	0.60	500	500
ECQE12122□F( )	0.0012	15.5	6.0	11.0	16.0	12.5	10.0	1.0	0.60		
ECQE12152□F( )	0.0015	15.5	6.0	11.0	16.0	12.5	10.0	1.0	0.60		
ECQE12182□F( )	0.0018	15.5	6.0	11.0	16.0	12.5	10.0	1.0	0.60		
ECQE12222□F( )	0.0022	15.5	6.0	11.5	16.5	12.5	10.0	1.0	0.60		
ECQE12272□F( )	0.0027	15.5	6.5	12.0	17.0	12.5	10.0	1.0	0.60		
ECQE12332□F( )	0.0033	15.5	6.0	11.5	16.5	12.5	10.0	1.0	0.60		
ECQE12392□F( )	0.0039	15.5	6.5	12.0	17.0	12.5	10.0	1.0	0.60		
ECQE12472□F( )	0.0047	15.5	7.0	12.5	17.5	12.5	10.0	1.0	0.60		
ECQE12562□F( )	0.0056	15.5	7.5	13.0	18.0	12.5	10.0	1.0	0.60	400	
ECQE12682□F( )	0.0068	15.5	7.5	15.0	20.0	12.5	10.0	1.0	0.60		
ECQE12822□F( )	0.0082	21.0	5.0	12.0	17.0	17.5	12.5	1.0	0.60	500	
ECQE12103□F( )	0.010	21.0	5.0	12.5	17.5	17.5	12.5	1.0	0.60		
ECQE12123□F( )	0.012	21.0	5.5	13.0	18.0	17.5	12.5	1.0	0.60		
ECQE12153□F( )	0.015	21.0	6.0	13.5	18.5	17.5	12.5	1.0	0.60		
ECQE12183□F( )	0.018	21.0	6.5	14.5	19.5	17.5	12.5	1.0	0.80		
ECQE12223□F( )	0.022	21.0	7.0	15.0	20.0	17.5	12.5	1.0	0.80		
ECQE12273□F( )	0.027	26.0	6.0	15.5	20.5	22.5	17.5	1.0	0.80		
ECQE12333□F( )	0.033	26.0	6.5	16.0	21.0	22.5	17.5	1.0	0.80		
ECQE12393□F( )	0.039	26.0	7.0	16.5	21.5	22.5	17.5	1.0	0.80		
ECQE12473□F( )	0.047	26.0	8.0	17.0	22.0	22.5	17.5	1.0	0.80		
ECQE12563□F( )	0.056	31.0	7.5	17.0	22.0	27.5	22.5	1.0	0.80		
ECQE12683□F( )	0.068	31.0	8.0	17.5	22.5	27.5	22.5	1.0	0.80		
ECQE12823□F( )	0.082	31.0	9.0	18.5	23.5	27.5	22.5	1.0	0.80		
ECQE12104□F( )	0.10	31.0	10.0	19.5	24.5	27.5	22.5	1.0	0.80		
ECQE12124□F( )	0.12	31.0	11.5	20.5	25.5	27.5	22.5	1.5	0.80		
ECQE12154□F( )	0.15	31.0	12.0	23.0	28.0	27.5	22.5	1.5	0.80		
ECQE12184□F( )	0.18	31.0	13.0	24.5	29.5	27.5	22.5	1.5	0.80		
ECQE12224□F( )	0.22	31.0	14.5	26.5	31.5	27.5	22.5	1.5	0.80		

Style D: 0.0010  $\mu$ F to 0.0068  $\mu$ F  
 Style B: 0.0082  $\mu$ F to 0.22  $\mu$ F

Note) This type has two rated voltage, one is DC rated voltage another is AC rated voltage..

DC rated voltage is 1250 V, AC rated voltage is 125 V.

Making for rated voltage is 「1250 V, 125 V  $\sim$ 」

When capacitors use in secondary side of power source, and in case of applying voltage in altering current (50 Hz or 60 Hz sine wave) to a capacitor, please refer to the page of "Permissible voltage (R.M.S) in altering current corresponding to DC rated voltage".

When capacitors use in primary side of power source, the rated voltage is shown 125 VAC. Voltage to be applied to capacitors in only sine wave (50 Hz or 60 Hz).

AC rated capacitors complying with clause 1 of "Electrical Appliance and Material Safety Law". And not complying with clause 2 of "Electrical Appliance and Material Safety Law", in this case please use ECQUL type or ECQUG type

■ 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)								Min. order Q'ty				
		L <sub>max.</sub>	T <sub>max.</sub>	H <sub>max.</sub>		F		S	G <sub>max.</sub>	φ d	Taping			Bulk
				Straight	Crimped lead	Straight	Crimped lead	Straight	Standard 5 mm		Odd size 5 mm	Odd size 7.5 mm		
ECQE1A103□F( )	0.010	10.5	4.5	7.5	12.5	7.5	7.5	1.0	0.60	1000	—	1000	500	
ECQE1A123□F( )	0.012	10.5	4.4	7.5	12.5	7.5	7.5	1.0	0.60					
ECQE1A153□F( )	0.015	10.5	4.4	7.5	12.5	7.5	7.5	1.0	0.60					
ECQE1A183□F( )	0.018	10.5	4.4	7.5	12.5	7.5	7.5	1.0	0.60					
ECQE1A223□F( )	0.022	10.5	4.4	7.5	12.5	7.5	7.5	1.0	0.60					
ECQE1A273□F( )	0.027	10.5	4.4	7.5	12.5	7.5	7.5	1.0	0.60					
ECQE1A333□F( )	0.033	10.5	4.5	7.8	12.8	7.5	7.5	1.0	0.60					
ECQE1A393□F( )	0.039	10.5	4.5	7.8	12.8	7.5	7.5	1.0	0.60	500	—	1000	500	
ECQE1A473□F( )	0.047	10.5	5.5	8.0	13.0	7.5	7.5	1.0	0.60					
ECQE1A563□F( )	0.056	10.5	5.9	8.5	13.5	7.5	7.5	1.0	0.60					
ECQE1A683□F( )	0.068	10.5	6.3	9.4	14.4	7.5	7.5	1.0	0.60					

□F( )

style D:0.010 μF to 0.068 μF

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

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.

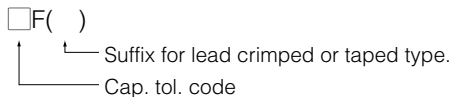
Table 1

Cap. Rated Voltage	Varistor voltage	Pulse voltage
125 VAC	250 V	250 V <sub>0-P</sub>



● Rated voltage : 250 VAC, Capacitance tolerance : ±5 % (J), ±10 % (K)  
Noise suppression Capacitors (Across-the-line)

Part No.	Cap. ( $\mu$ F)	Dimensions (mm)								Min. order Q'ty				
		L <sub>max.</sub>	T <sub>max.</sub>	H <sub>max.</sub>		F		S		G <sub>max.</sub>	$\phi$ d	Taping		Bulk
				Straight	Crimped lead	Straight	Crimped lead	Straight	Standard 5 mm			Odd size 7.5 mm		
ECQE2A103□F( )	0.010	12.5	5.5	10.8	15.8	10.0	10.0	1.0	0.60	500	1000	500		
ECQE2A123□F( )	0.012	12.5	6.0	11.5	16.5	10.0	10.0	1.0	0.60					
ECQE2A153□F( )	0.015	12.5	6.3	9.9	14.9	10.0	10.0	1.0	0.60					
ECQE2A183□F( )	0.018	12.5	6.0	11.9	16.9	10.0	10.0	1.0	0.60					
ECQE2A223□F( )	0.022	12.5	6.0	11.5	16.5	10.0	10.0	1.0	0.60					
ECQE2A273□F( )	0.027	12.5	5.5	10.9	15.9	10.0	10.0	1.0	0.60					
ECQE2A333□F( )	0.033	12.5	6.0	11.9	16.9	10.0	10.0	1.0	0.60					
ECQE2A393□F( )	0.039	12.5	6.0	13.4	18.4	10.0	10.0	1.0	0.60					
ECQE2A473□F( )	0.047	12.5	6.5	14.4	19.4	10.0	10.0	1.0	0.60					
ECQE2A563□F( )	0.056	18.5	5.4	10.5	15.5	15.0	10.0	1.0	0.60					
ECQE2A683□F( )	0.068	18.5	5.8	11.0	16.0	15.0	10.0	1.0	0.60					
ECQE2A823□F( )	0.082	18.5	6.3	12.0	17.0	15.0	10.0	1.0	0.60					
ECQE2A104□F( )	0.10	18.5	6.3	14.0	19.0	15.0	10.0	1.0	0.60					
ECQE2A124□F( )	0.12	18.5	6.8	14.5	19.5	15.0	10.0	1.0	0.80					
ECQE2A154□F( )	0.15	18.5	7.5	15.4	20.4	15.0	10.0	1.0	0.80					
ECQE2A184□F( )	0.18	18.5	8.0	16.0	21.0	15.0	10.0	1.0	0.80					
ECQE2A224□F( )	0.22	18.5	9.0	16.9	21.9	15.0	10.0	1.0	0.80					
ECQE2A274□F( )	0.27	26.0	7.0	16.5	21.5	22.5	15.0	1.0	0.80					
ECQE2A334□F( )	0.33	26.0	7.8	17.0	22.0	22.5	15.0	1.0	0.80					
ECQE2A394□F( )	0.39	26.0	8.5	17.9	22.9	22.5	15.0	1.0	0.80					
ECQE2A474□F( )	0.47	26.0	9.3	18.5	23.5	22.5	15.0	1.0	0.80					
ECQE2A564P( )( )	0.56	26.0	10.0	20.0	—	22.5	—	1.0	0.80					
ECQE2A684P( )( )	0.68	26.0	11.5	21.0	—	22.5	—	1.0	0.80					
ECQE2A824P( )( )	0.82	26.0	13.0	22.5	—	22.5	—	1.0	0.80					
ECQE2A105P( )( )	1.0	31.0	12.5	21.9	—	27.5	—	1.5	0.80					
ECQE2A125P( )( )	1.2	31.0	13.5	23.0	—	27.5	—	1.5	0.80					
ECQE2A155P( )( )	1.5	31.0	15.3	24.7	—	27.5	—	1.5	0.80					
ECQE2A185P( )( )	1.8	31.0	16.8	27.0	—	27.5	—	1.5	0.80					
ECQE2A225P( )( )	2.2	31.0	19.5	29.0	—	27.5	—	1.5	0.80					



Style D: 0.010  $\mu$ F to 0.047  $\mu$ F  
 Style B: 0.056  $\mu$ F to 0.47  $\mu$ F

\*Please consult us about Crimed lead type of 0.56  $\mu$ F to 2.2  $\mu$ F.

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.

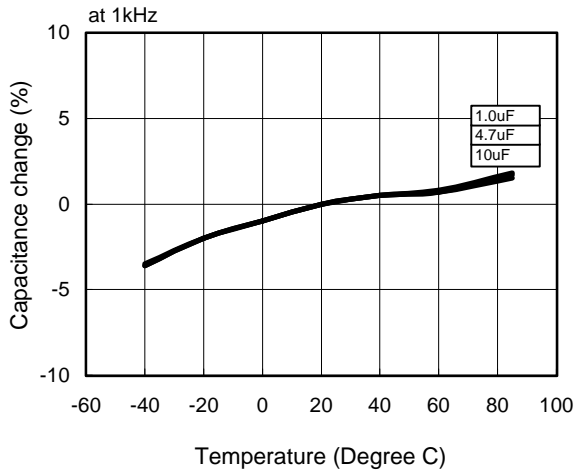
1. Capacitor shall be connected in parallel with varistor (Specified varistor voltage in table 1.)
2. Voltage applied for capacitor shall not exceed other than specified in table 1, when using these capacitors.

Table 1

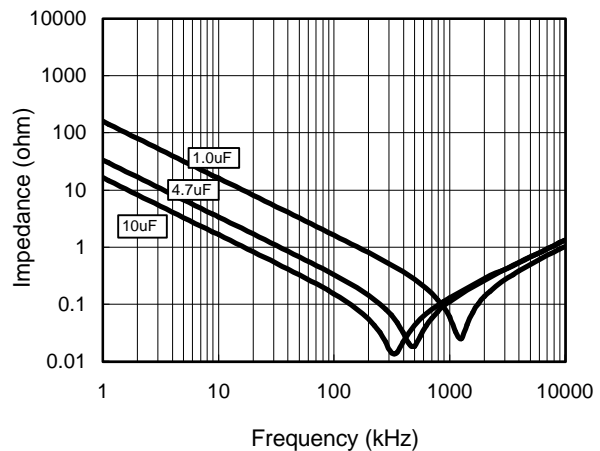
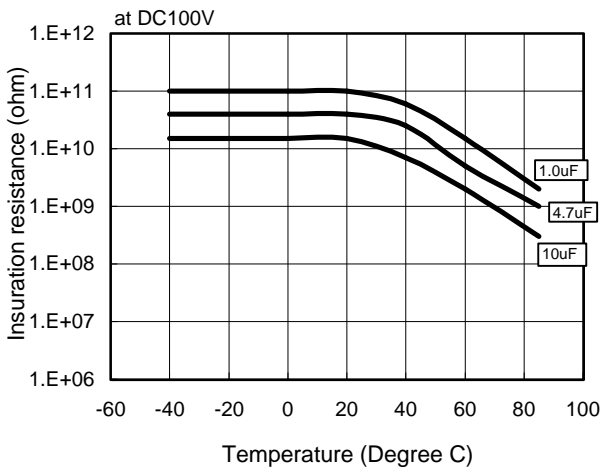
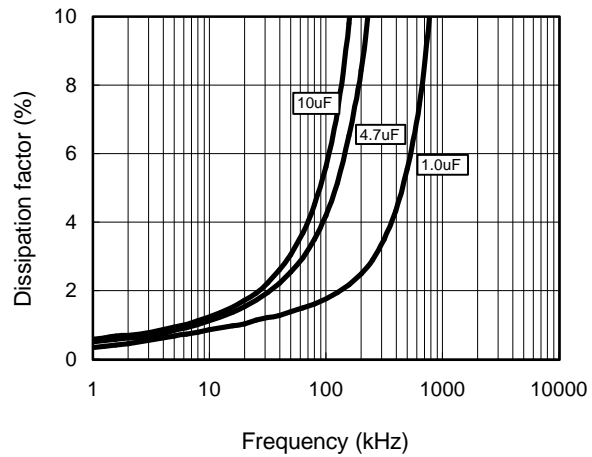
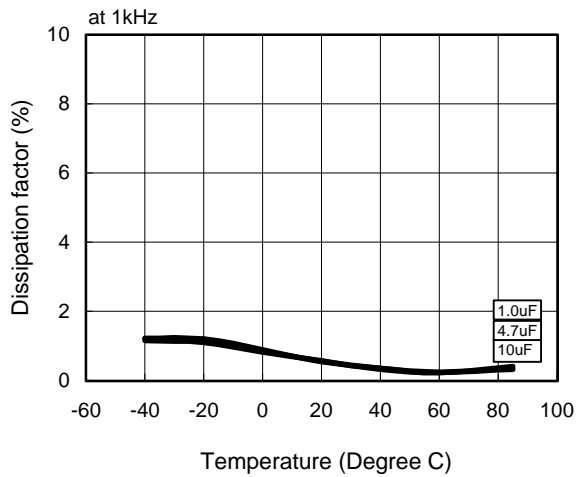
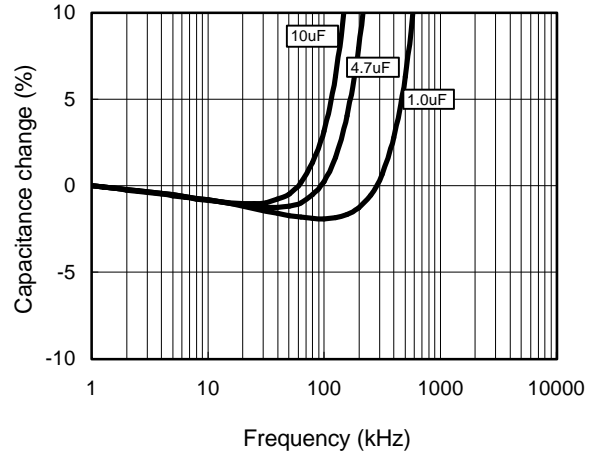
Cap. Rated Voltage	Varistor voltage	Pulse voltage
250 VAC	470 V	630 V <sub>0-P</sub>

**ECQE(F) Type 100VDC Series (Metallized Polyester Film)**  
**Electrical Characteristics <Typical Data>**

**Temperature Characteristics**



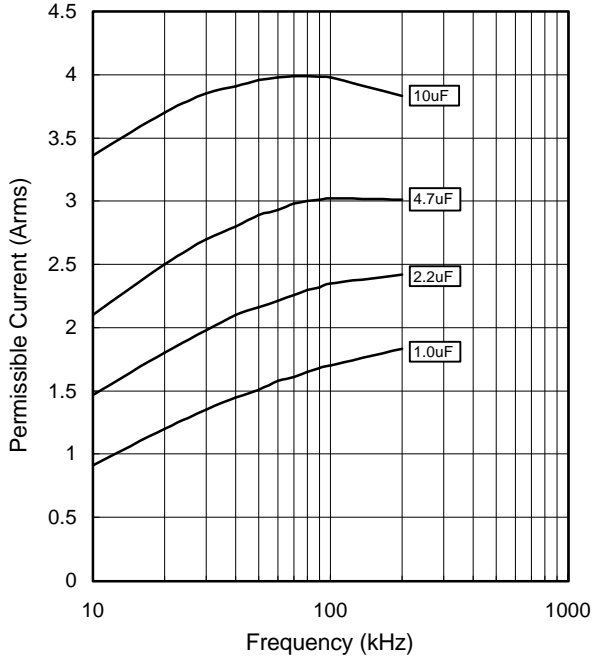
**Frequency Characteristics**



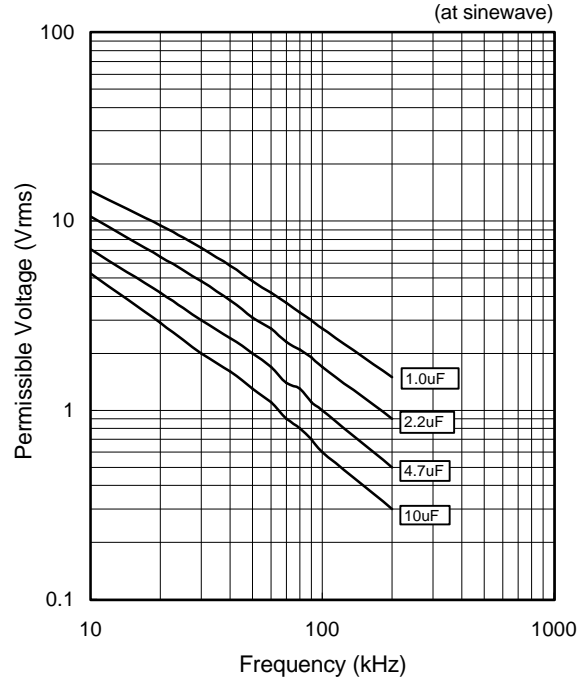
**ECQE(F) Type 100VDC Series (Metallized Polyester Film)**

**Applicable Specifications**

**Permissible Current**



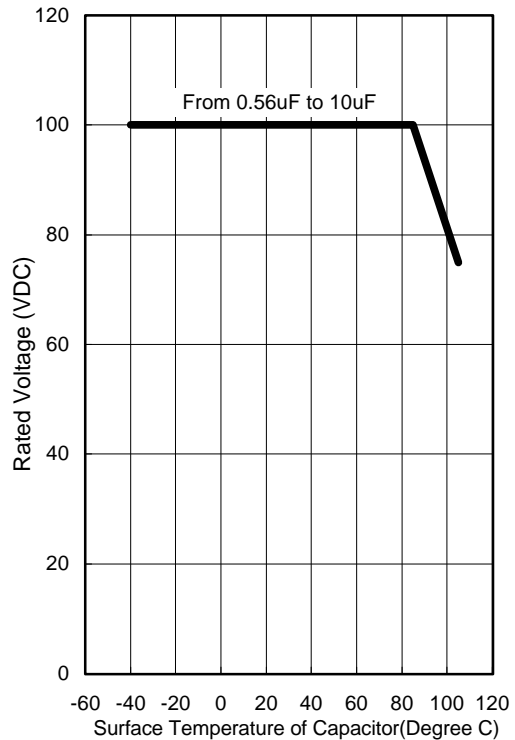
**Permissible Voltage**



**Pulse Handling Capability (dV/dt)**  
(Max 10000cycles)

Rating Voltage	Capacitance Value(uF)	Code	dV/dt(V/us)	Current(o-p) (A)
100VDC	0.56	564	22	12.32
	0.68	684		15.0
	0.82	824		18.0
	1.00	105		22.0
	1.20	125		11
	1.50	155	17.1	
	1.80	185	19.8	
	2.20	225	24.2	
	2.70	275	29.7	
	3.30	335	6	36.3
	3.90	395		23.4
	4.70	475		28.2
	5.60	565		33.6
	6.80	685		40.8
	8.20	825	49.2	
10.00	106	60.0		

**Voltage Derating by Temperature**



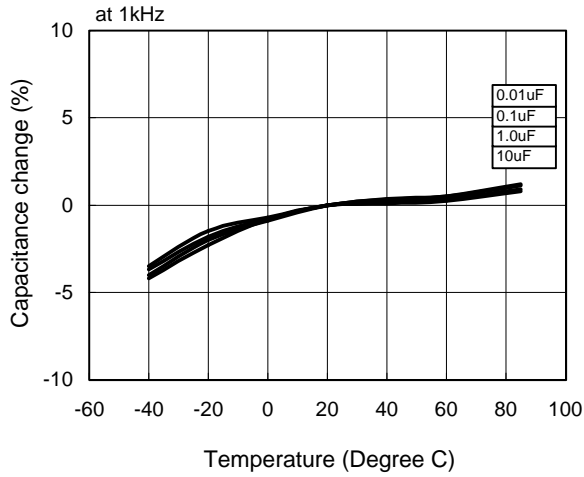
\* Please consult Panasonic if your condition exceeds the above spec.



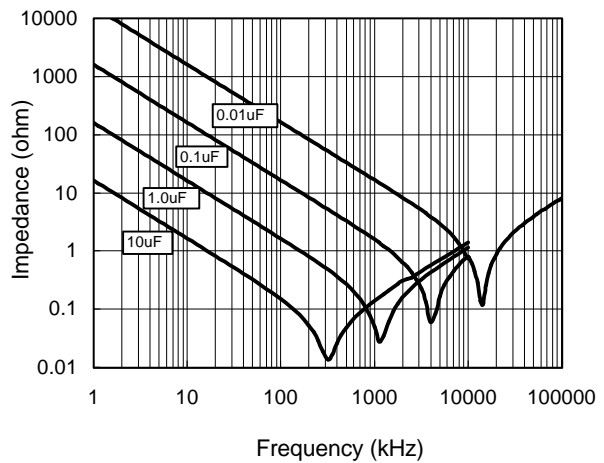
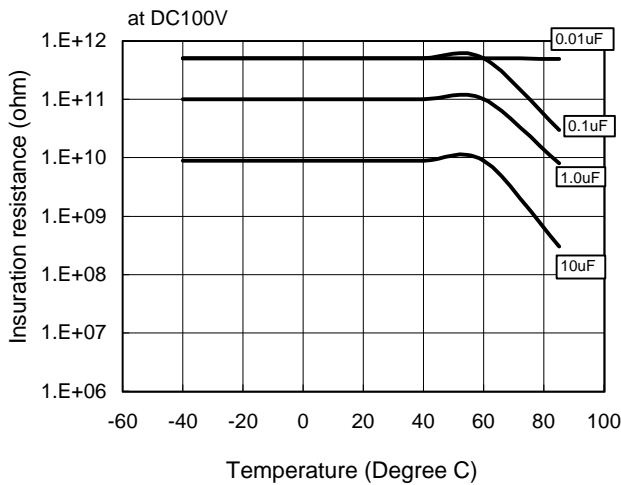
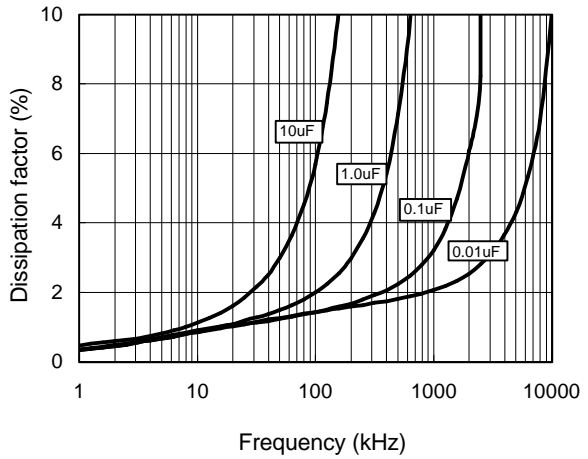
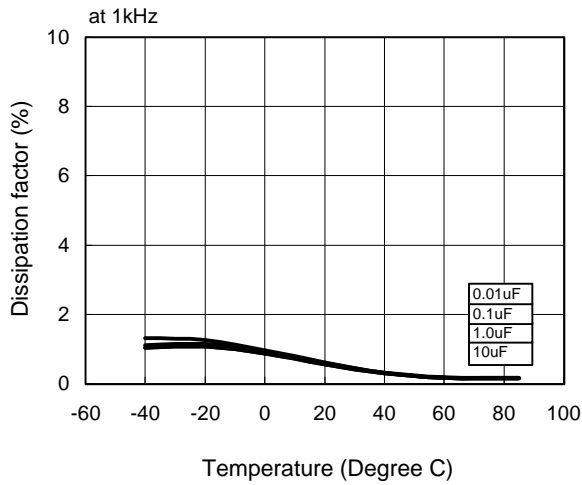
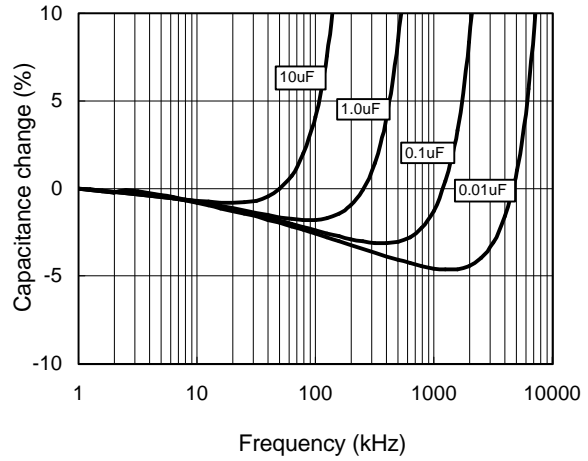
# ECQE(F) Type 250VDC Series (Metallized Polyester Film)

## Erectrical Characteristics <Typical Data>

### Temperature Characteristics



### Frequency Characteristics

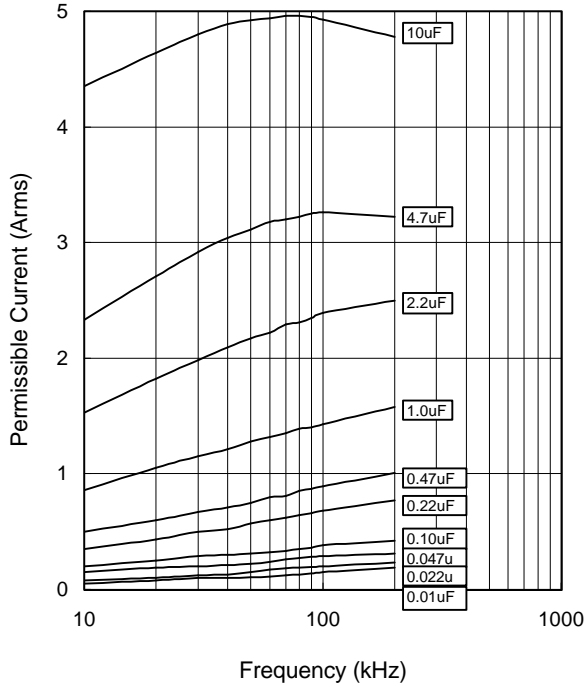




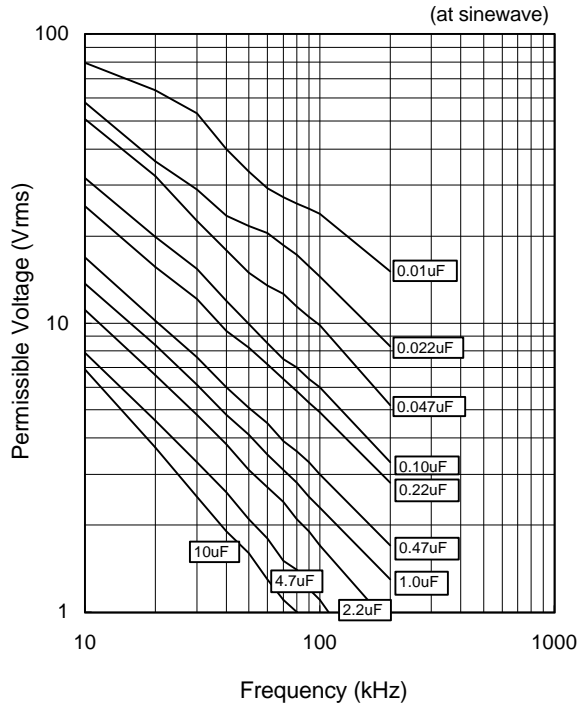
# ECQE(F) Type 250VDC Series (Metallized Polyester Film)

## Applicable Specifications

**Permissible Current**



**Permissible Voltage**

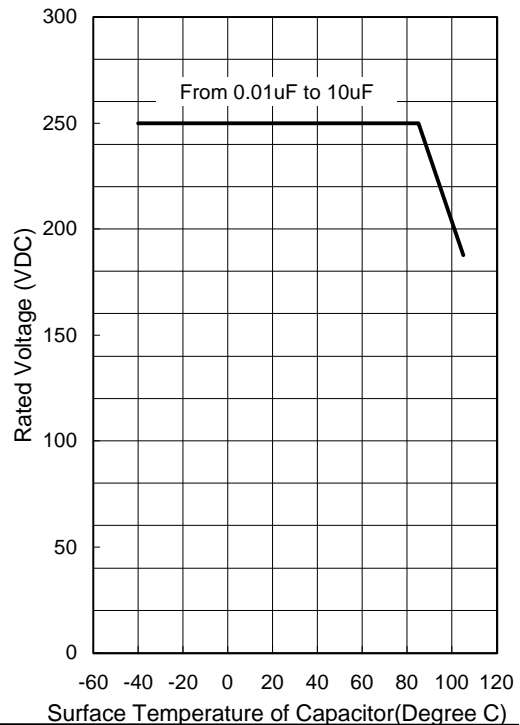


**Pulse Handling Capability (dV/dt)**

(Max 10000cycles)

Rating Voltage	Capacitance Value(uF)	Code	dV/dt(V/us)	Current(o-p) (A)
250VDC	0.010	103	48	0.48
	0.015	153		0.72
	0.022	223		1.06
	0.033	333		1.58
	0.047	473		2.26
	0.068	683		3.26
	0.100	104	33	4.80
	0.150	154		7.20
	0.220	224		7.26
	0.330	334	18	10.89
	0.470	474		8.46
	0.680	684		12.24
	1.000	105	10	18.00
	1.500	155		27.00
	2.200	225		22.00
	3.300	335	8	33.00
	4.700	475		47.00
	6.800	685		54.40
10.000	106		80.00	

**Voltage Derating by Temperature**

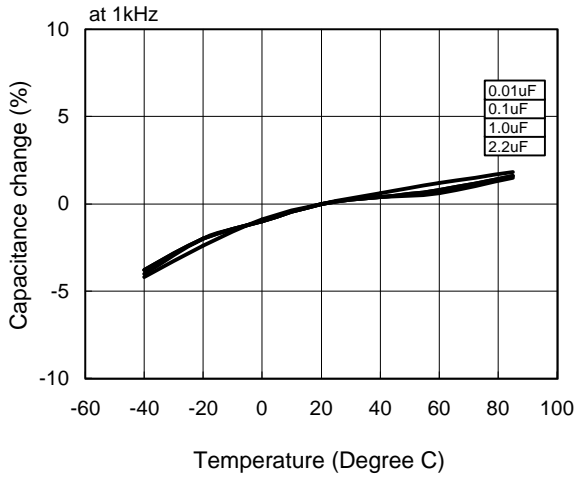


\* Please consult Panasonic if your condition exceeds the above spec.

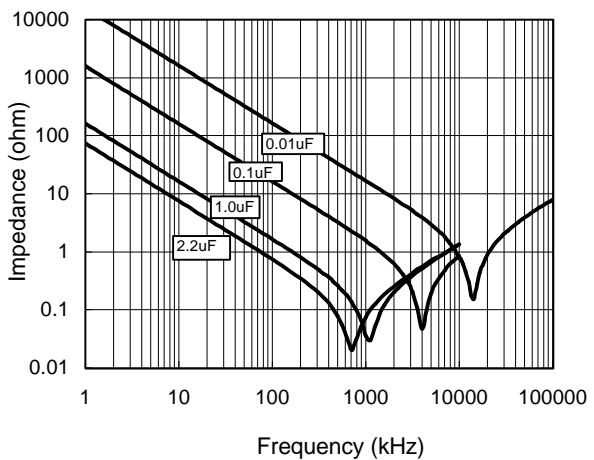
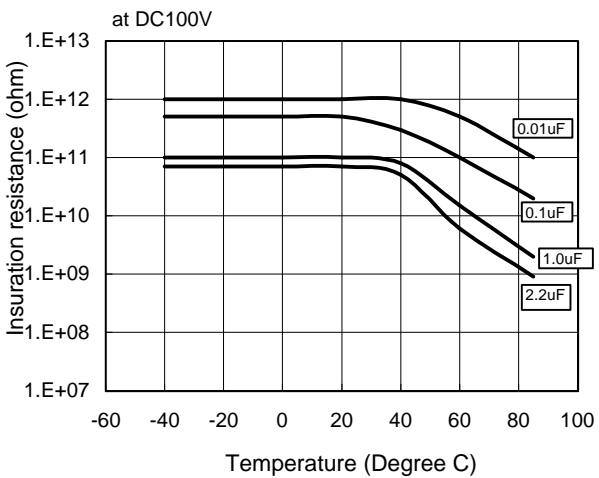
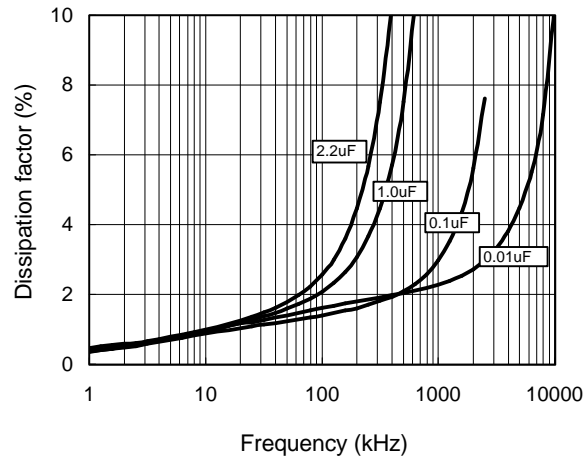
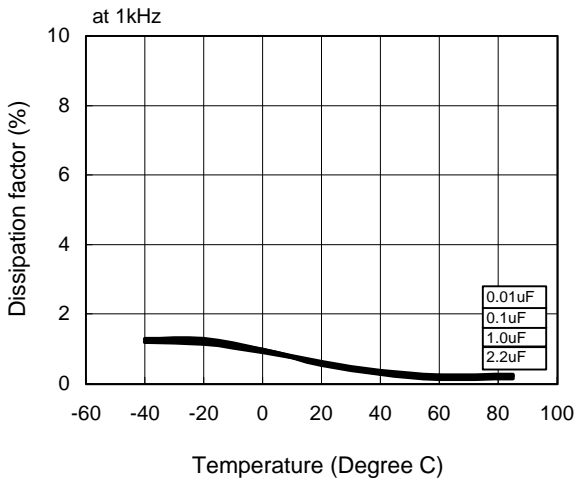
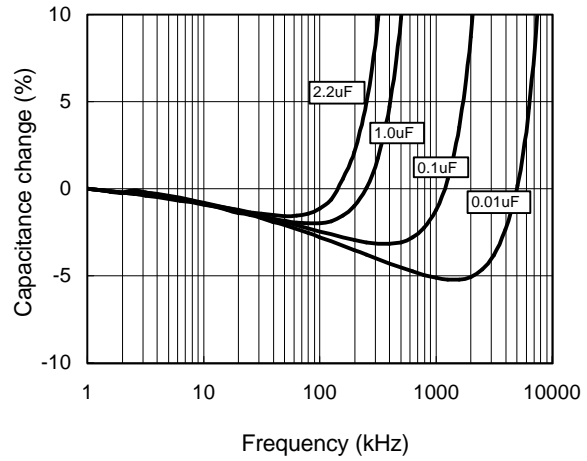
**ECQE(F) Type 400VDC Series (Metallized Polyester Film)**

**Erectrical Characteristics <Typical Data>**

**Temperature Characteristics**



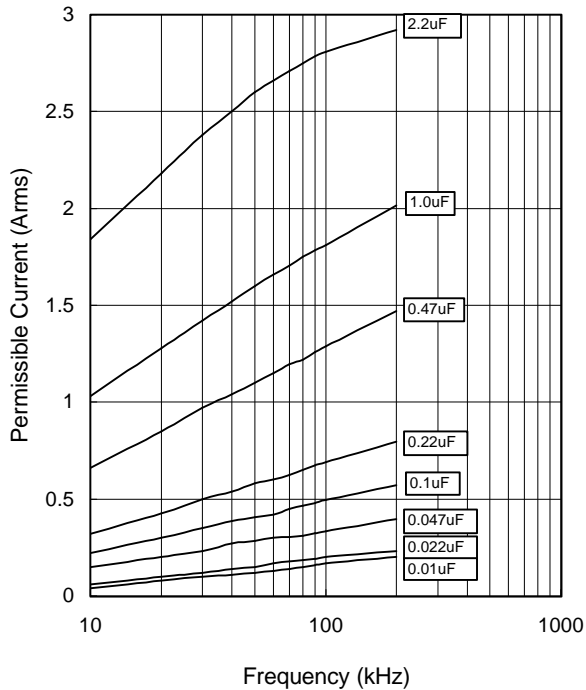
**Frequency Characteristics**



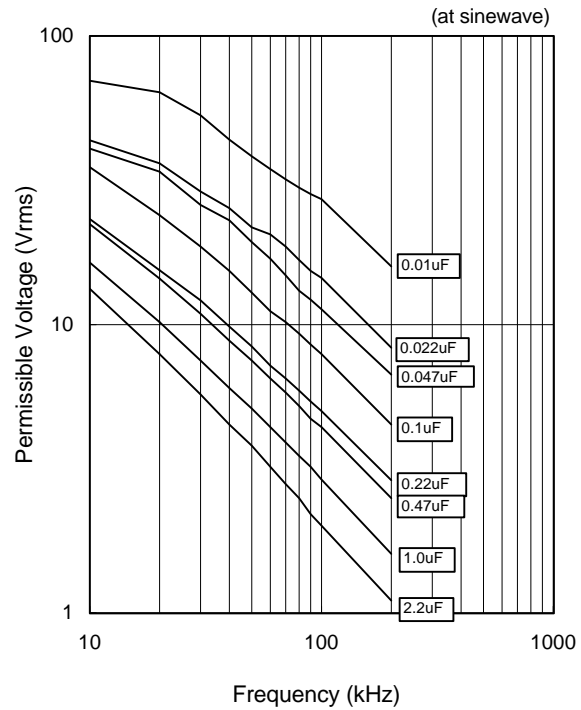
**ECQE(F) Type 400VDC Series (Metallized Polyester Film)**

**Applicable Specifications**

**Permissible Current**



**Permissible Voltage**

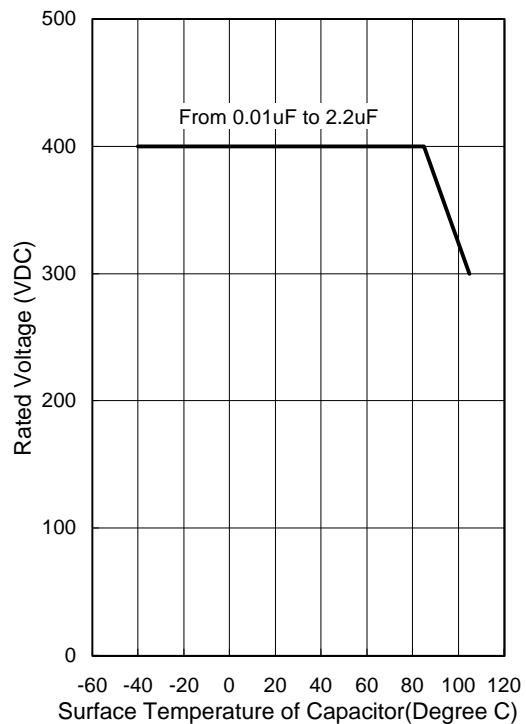


**Pulse Handling Capability (dV/dt)**

(Max 10000cycles)

Rating Voltage	Capacitance Value(uF)	Code	dV/dt(V/us)	Current(o-p) (A)
400VDC	0.010	103	131	1.31
	0.015	153		1.97
	0.022	223		2.88
	0.033	333		4.32
	0.047	473		3.67
	0.068	683	78	5.30
	0.100	104	37	7.80
	0.150	154		5.55
	0.220	224		8.14
	0.330	334	22	12.21
	0.470	474		17.39
	0.680	684	18	14.96
	1.000	105		22.00
1.200	155	27.00		
2.200	225		39.60	

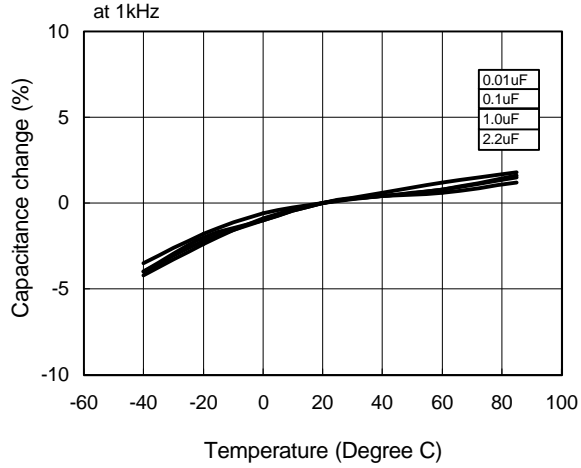
**Voltage Derating by Temperature**



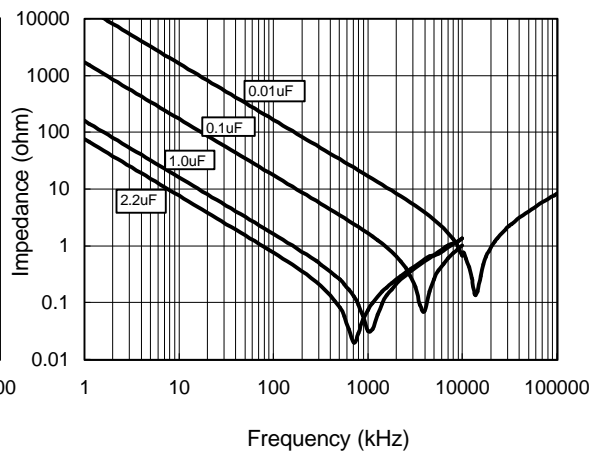
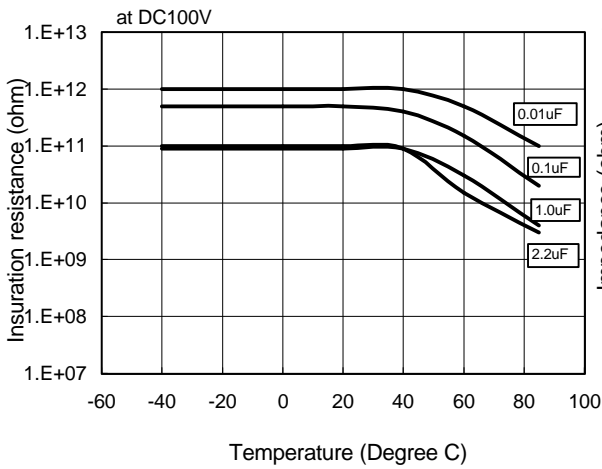
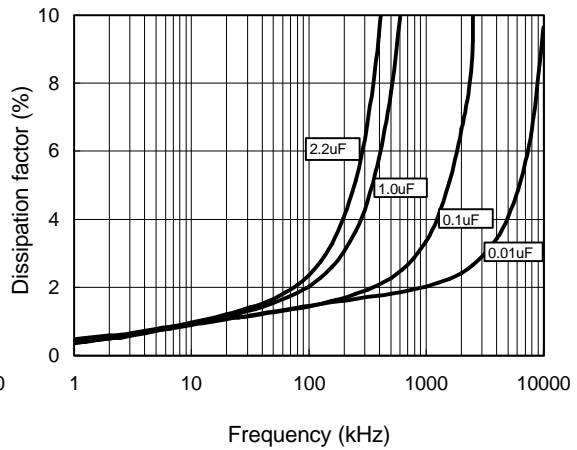
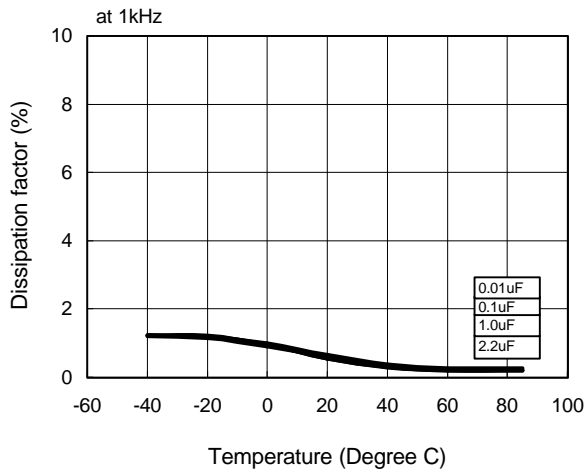
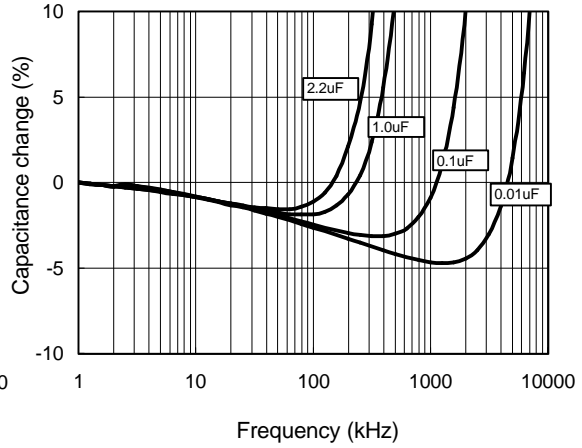
\* Please consult Panasonic if your condition exceeds the above spec.

**ECQE(F) Type 630VDC Series (Metallized Polyester Film)**  
**Erectrical Characteristics <Typical Data>**

**Temperature Characteristics**



**Frequency Characteristics**



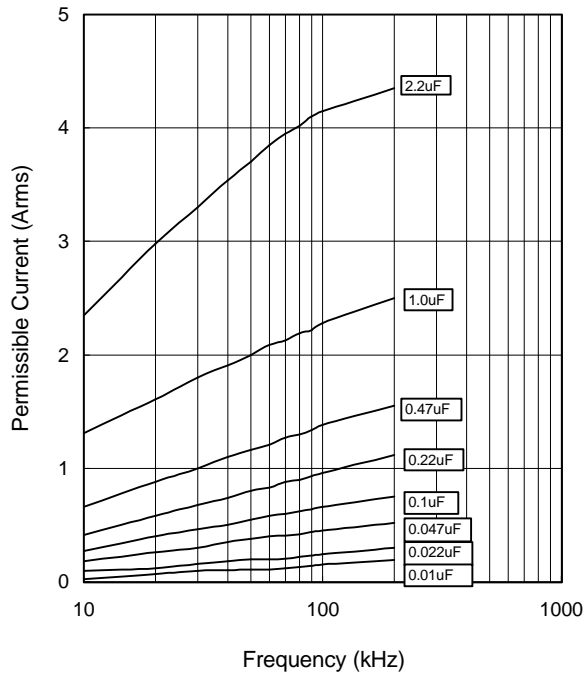




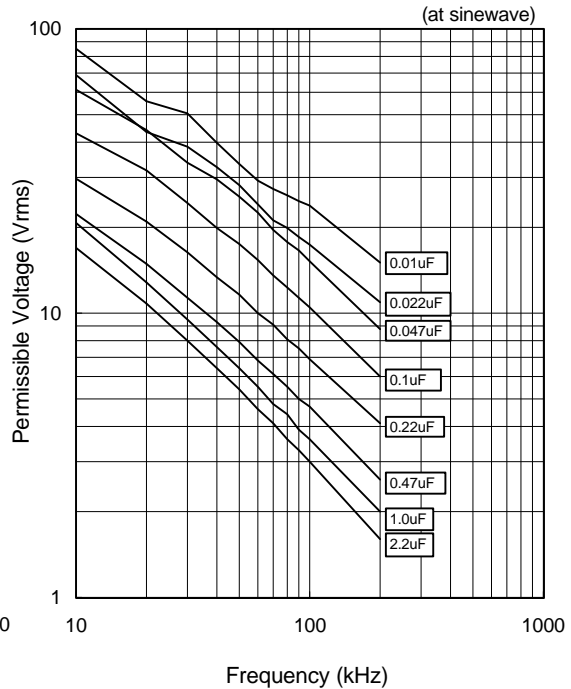
# ECQE(F) Type 630VDC Series (Metallized Polyester Film)

## Applicable Specifications

**Permissible Current**



**Permissible Voltage**

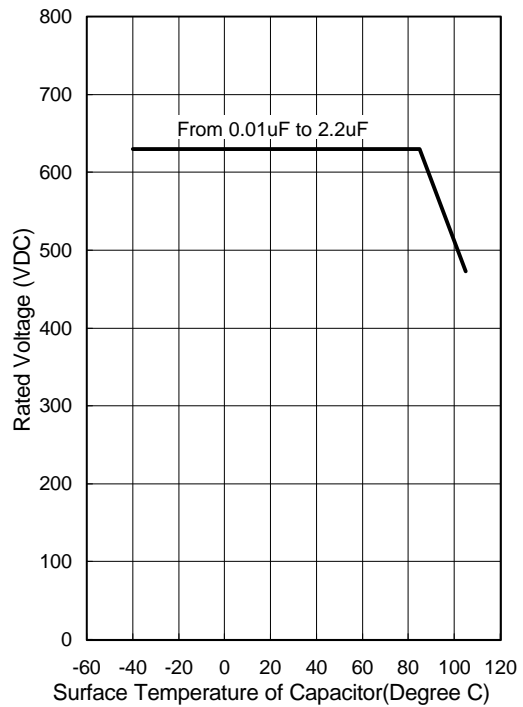


**Pulse Handling Capability (dV/dt)**

(Max 10000cycles)

Rating Voltage	Capacitance Value(uF)	Code	dV/dt(V/us)	Current(o-p) (A)
630VDC	0.010	103	273	2.73
	0.015	153		4.10
	0.022	223		6.01
	0.033	333		9.01
	0.047	473		12.83
	0.068	683	116	7.89
	0.100	104		11.60
	0.150	154		17.40
	0.220	224	63	25.52
	0.330	334		20.79
	0.470	474	48	29.61
	0.680	684		42.84
	1.000	105	48	48.00
	1.500	155		72.00
2.200	225	105.60		

**Voltage Derating by Temperature**

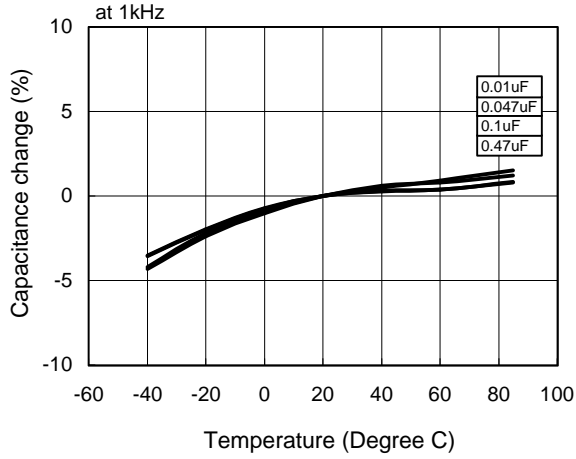


\* Please consult Panasonic if your condition exceeds the above spec.

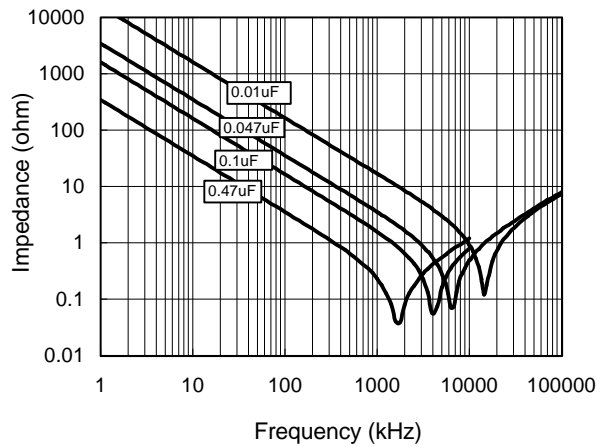
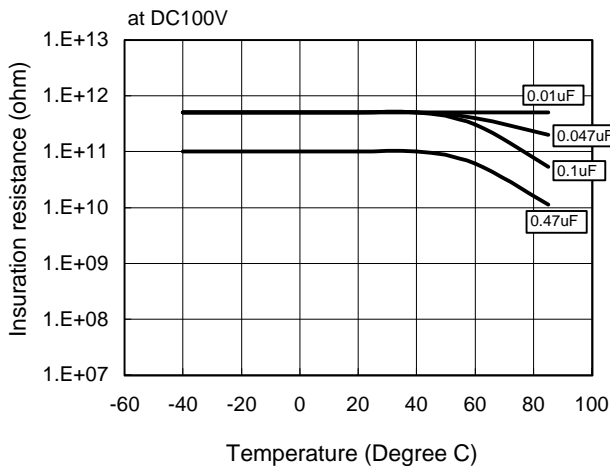
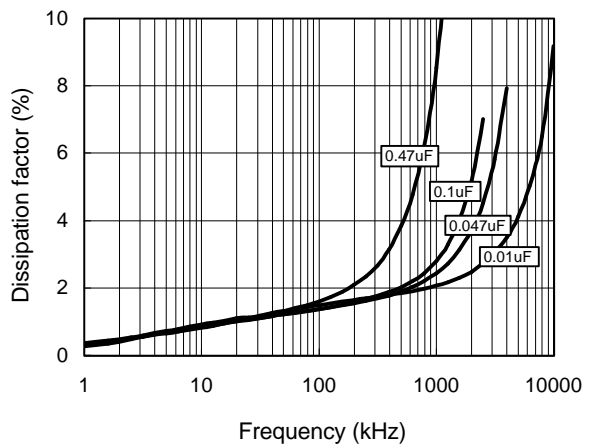
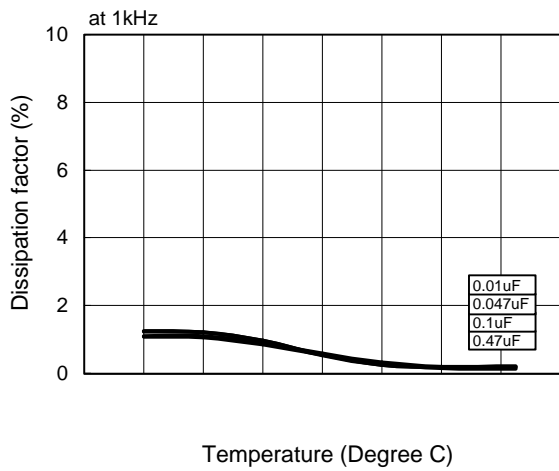
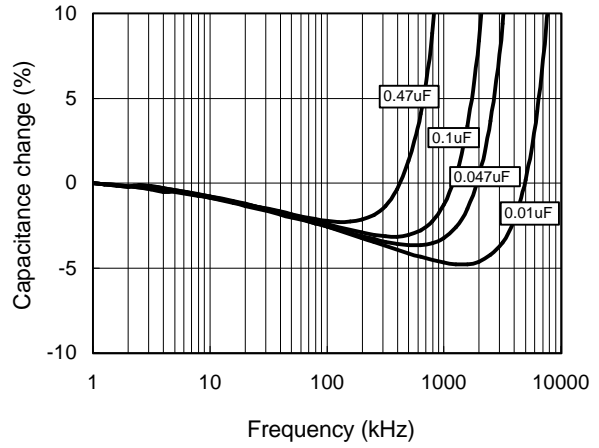
**ECQE(F) Type 125VAC Series (Metallized Polyester Film)**

**Erectrical Characteristics <Typical Data>**

**Temperature Characteristics**



**Frequency Characteristics**

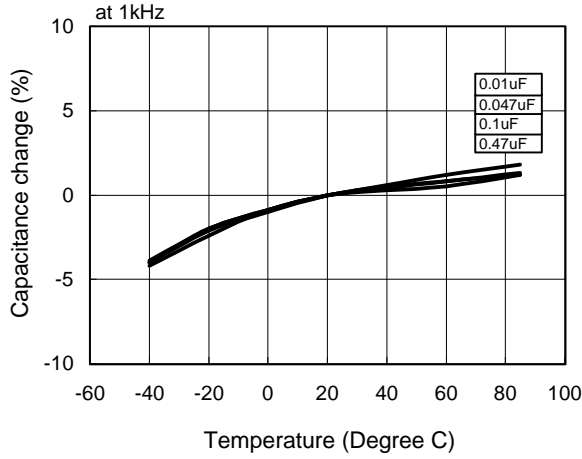




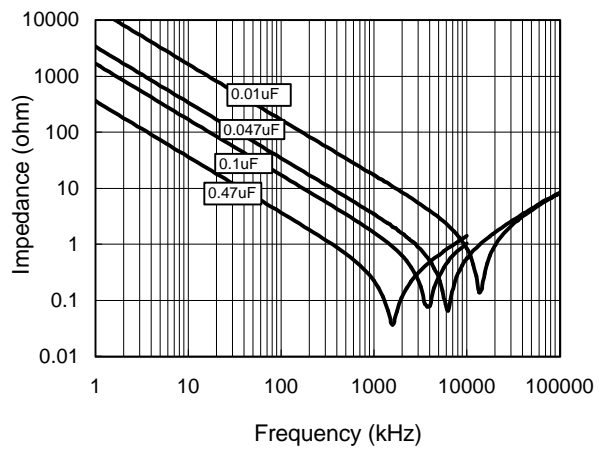
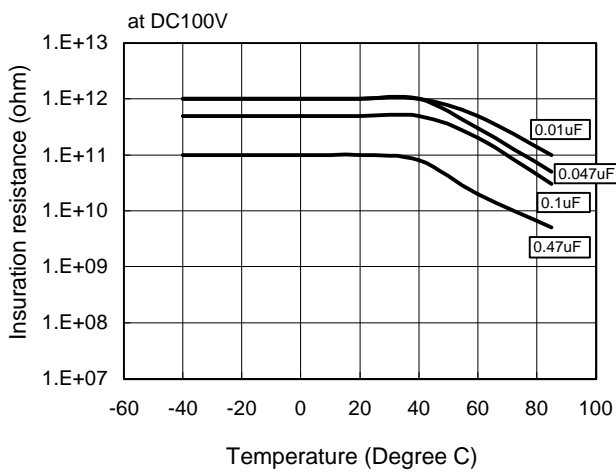
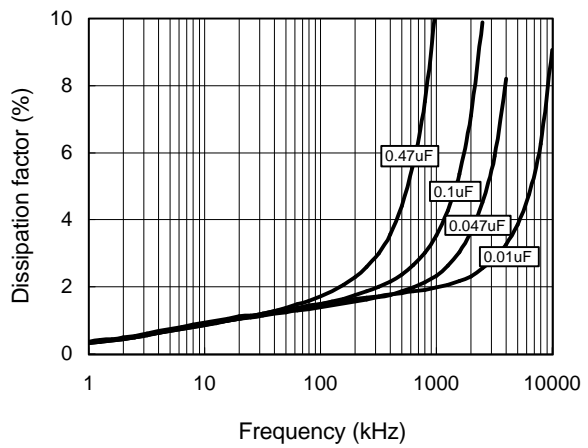
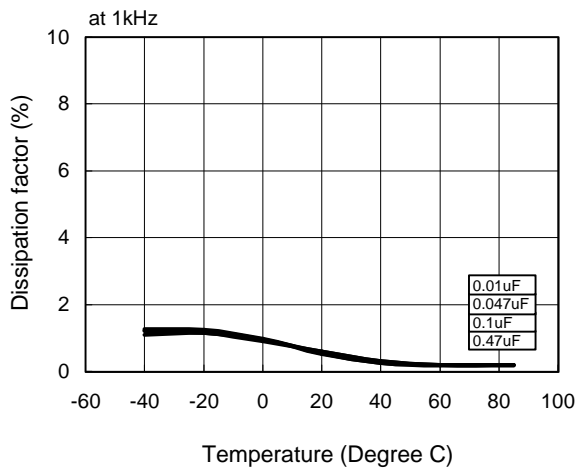
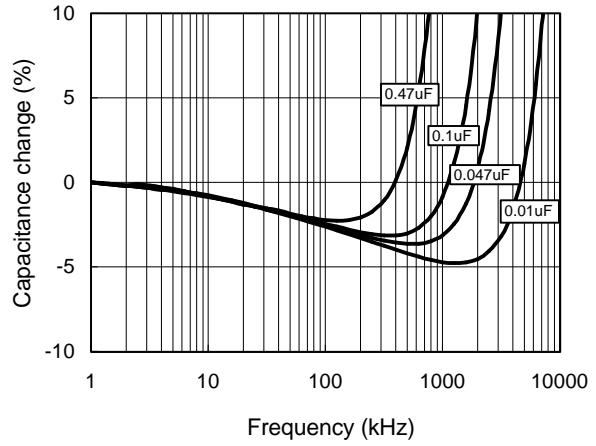
# ECQE(F) Type 250VAC Series (Metallized Polyester Film)

## Erectrical Characteristics <Typical Data>

### Temperature Characteristics



### Frequency Characteristics



## Panasonic:

[ECQ-E4223KF](#) [ECQ-E4394KF](#) [ECQ-E6103JF](#) [ECQ-E4103KF3](#) [ECQ-E4334KF](#) [ECQ-E1335JF](#) [ECQ-E6153JF](#)  
[ECQ-E1684JF](#) [ECQ-E10102KF](#) [ECQ-E2104KF3](#) [ECQ-E2124KF](#) [ECQ-E2125KF](#) [ECQ-E4824KF](#) [ECQ-E2103KF3](#)  
[ECQ-E1185KF](#) [ECQ-E2106KF](#) [ECQ-E6333JF](#) [ECQ-E1565KF](#) [ECQ-E2185KF](#) [ECQ-E2275KF](#) [ECQ-E2395KF](#) [ECQ-](#)  
[E2273KF](#) [ECQ-E6102KF](#) [ECQ-E6222KF](#) [ECQ-E6332KF](#) [ECQ-E6472KF](#) [ECQ-E4474KF3](#) [ECQ-E10822JF](#) [ECQ-](#)  
[E1105KF](#) [ECQ-E1105KF3](#) [ECQ-E1106KF](#) [ECQ-E1155JF](#) [ECQ-E12103KF](#) [ECQ-E12223JF](#) [ECQ-E1225KF](#) [ECQ-](#)  
[E1275KF](#) [ECQ-E1335KF](#) [ECQ-E1395KF](#) [ECQ-E1475KF](#) [ECQ-E1564KF](#) [ECQ-E1684KF](#) [ECQ-E1825KF](#) [ECQ-](#)  
[E2103KF](#) [ECQ-E2104KF](#) [ECQ-E2105JF](#) [ECQ-E2105KF](#) [ECQ-E2105KF3](#) [ECQ-E2105KF9](#) [ECQ-E2124JF](#) [ECQ-](#)  
[E2154KF](#) [ECQ-E2155KF](#) [ECQ-E2223KF](#) [ECQ-E2224KF](#) [ECQ-E2224KF9](#) [ECQ-E2225KF](#) [ECQ-E2274JF](#) [ECQ-](#)  
[E2333KF](#) [ECQ-E2334KF](#) [ECQ-E2335KF](#) [ECQ-E2394KF](#) [ECQ-E2473KF](#) [ECQ-E2474JF](#) [ECQ-E2474KF](#) [ECQ-](#)  
[E2474KF3](#) [ECQ-E2475KF](#) [ECQ-E2505KF](#) [ECQ-E2564KF](#) [ECQ-E2684KF](#) [ECQ-E2825KF](#) [ECQ-E4103KF](#) [ECQ-](#)  
[E4104KF](#) [ECQ-E4105KF](#) [ECQ-E4123KF](#) [ECQ-E4124JF](#) [ECQ-E4124KF](#) [ECQ-E4125KF](#) [ECQ-E4153JF](#) [ECQ-](#)  
[E4155KF](#) [ECQ-E4183KF](#) [ECQ-E4184KF](#) [ECQ-E4185KF](#) [ECQ-E4224KF](#) [ECQ-E4225KF](#) [ECQ-E4273KF](#) [ECQ-](#)  
[E4274EJF](#) [ECQ-E4333JF](#) [ECQ-E4333JF9](#) [ECQ-E4333KF](#) [ECQ-E4393KF](#) [ECQ-E4473KF](#) [ECQ-E4474KF](#) [ECQ-](#)  
[E4563KF](#) [ECQ-E4564KF](#) [ECQ-E4683KF9](#) [ECQ-E4684KF](#) [ECQ-E4823KF](#) [ECQ-E6103KF](#) [ECQ-E6104KF](#) [ECQ-](#)  
[E6105KF](#) [ECQ-E6125KF](#)