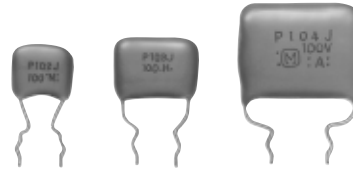


Polypropylene Film Capacitor

Type: **ECQP(Z)**

Non-inductive construction using Polypropylene film with epoxy resin coating



■Features

- Excellent temperature and frequency characteristics
- Excellent long term stability
- RoHS directive compliant

■Recommended Applications

- Dolby circuits
- Oscillation circuits

■Explanation of Part Numbers

1	2	3	4	5	6	7	8	9	10	11	12																	
E	C	Q	P							Z																		
Product code		Dielectric & construction		Rated voltage		Capacitance			Cap. Tol.	Suffix	Suffix																	
<table><tr><td>50 VDC</td><td>100 VDC</td></tr><tr><td>1H</td><td>1</td></tr></table>		50 VDC	100 VDC	1H	1	<table><tr><td>± 1 %</td><td>± 2 %</td><td>± 5 %</td></tr><tr><td>F</td><td>G</td><td>J</td></tr></table>		± 1 %	± 2 %	± 5 %	F	G	J	<table><tr><td>Crimped taping</td><td colspan="2">Crimped lead</td></tr><tr><td>Ammo</td><td>style N</td><td>style T</td></tr><tr><td>3</td><td colspan="2">W</td></tr></table>			Crimped taping	Crimped lead		Ammo	style N	style T	3	W				
50 VDC	100 VDC																											
1H	1																											
± 1 %	± 2 %	± 5 %																										
F	G	J																										
Crimped taping	Crimped lead																											
Ammo	style N	style T																										
3	W																											

●Explanation of Part Number for Odd Size Taping

1	2	3	4	5	6	7	8	9	10	11	12
E	C	Q	P						R		Z
Product code	Dielectric & construction		Rated voltage		Capacitance			7.5 mm Crimped lead	Cap. Tol.	Suffix	

■Specifications

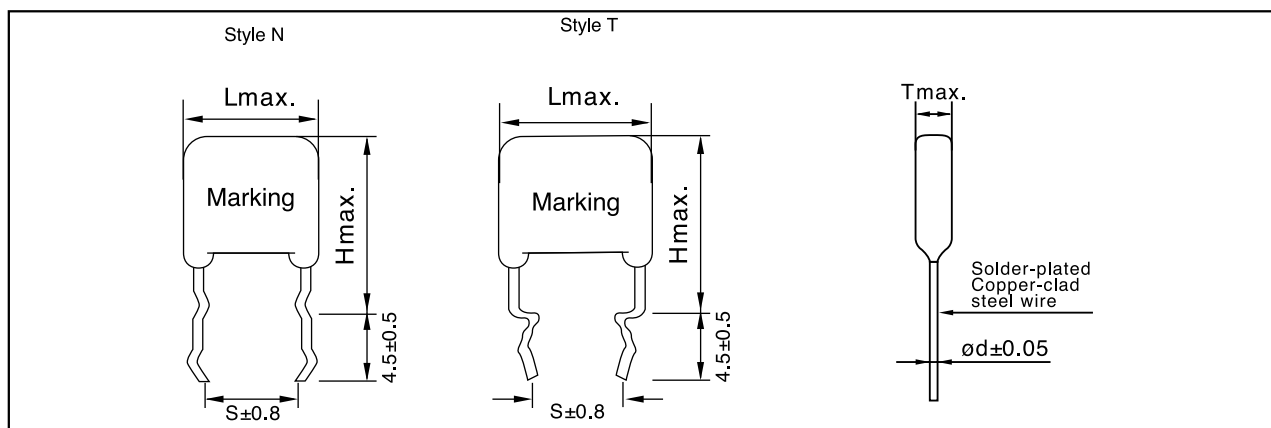
Category temp. range (Including temperature-rise on unit surface)	−40 °C to +85 °C
Rated voltage	50 VDC, 100 VDC (Derating of rated voltage by 2.0 %/°C at more than 70 °C) (Derating is required according to cap. value.) (* Refer to the table on the next page.)
Capacitance range	0.00010 μF to 0.47 μF
Capacitance tolerance	± 1 % (F), ± 2 % (G), ± 5 % (J) 50 VDC : For cap. value 0.00010 μF to 0.00030 μF, ± 5 % (J) only 50 VDC : For cap. value 0.00033 μF to 0.00091 μF, ± 2 % (G), ± 5 % (J) only 100 VDC : For cap. value 0.00010 μF to 0.00043 μF, ± 5 % (J) only 100 VDC : For cap. value 0.00047 μF to 0.00091 μF, ± 2 % (G), ± 5 % (J) only
Dissipation factor (tan δ)	tan δ ≤ 0.1% (20 °C, 1 kHz)
Withstand voltage	Between terminals: Rated volt. (VDC) × 250 % 1 s to 5 s
Insulation resistance (IR)	C ≤ 0.33 μF : IR ≥ 45000 MΩ C > 0.33 μF : IR ≥ 15000 MΩ · μF (20 °C, Rated volt., 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”.

※ Derating of rated voltage to capacitance value

Cap. value (μF)	Rated volt.	
	50 VDC	100 VDC
0.11—0.12	49V	98V
0.13—0.15	47V	95V
0.16—0.18	46V	93V
0.20—0.22	45V	90V
0.24—0.27	44V	88V
0.30—0.33	42V	85V
0.36—0.39	41V	83V
0.43—0.47	40V	80V

■ Dimensions in mm (not to scale)

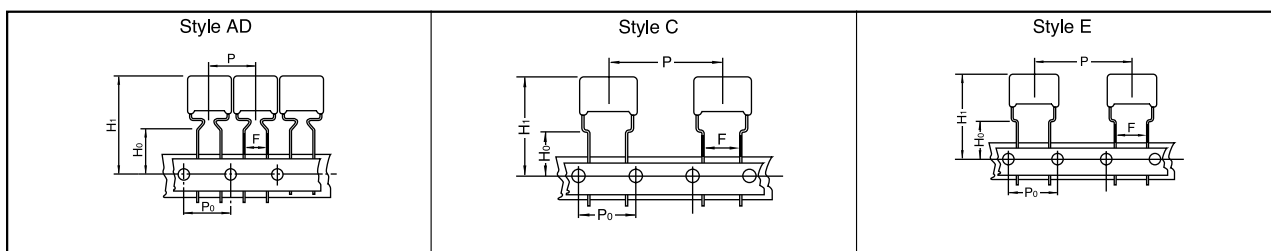


■ Packaging Specifications for Bulk Package

- Packing quantity: 100 pcs./bag

■ Taping Specifications for Automatic Insertion

- Taping style



※Cap. Tol. $\pm 1\%$ (F) is not available for taping

※Refer to the page of taping specifications.

● Packaging Specifications

Type	Rated volt.	Cap. range (μF)	Taping style						Packing
			AD	AS	B	C	D	E	
ECQP	50 VDC	0.00010 to 0.033	O						Ammo
		0.036 to 0.13				O			Ammo
		0.10 to 0.33						O	Ammo
	100 VDC	0.00010 to 0.018	O						Ammo
		0.020 to 0.16				O			Ammo
		0.22						O	Ammo

● Lead Spacing

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

※ See the column “Rating, Dimensions & Quantity Box” for packing quantity.

■ Rating, Dimensions & Quantity/Ammo Box

● Rated voltage : 50VDC, Capacitance tolerance : $\pm 1\%$ (F), $\pm 2\%$ (G), $\pm 5\%$ (J)Only $\pm 5\%$ (J) is available from 0.00010 μF to 0.00030 μF , Only $\pm 2\%$ (G), $\pm 5\%$ (J) is available from 0.00033 μF to 0.00091 μF

Part No.	Cap. (μF)	Dimensions (mm)					Quantity
		L _{max.}	T _{max.}	H _{max.}	S	ød	Ammo
ECQP1H101JZ()	0.00010	8.5	4.5	12.5	5.0	0.50	1000
ECQP1H111JZ()	0.00011	8.5	4.5	12.5	5.0	0.50	
ECQP1H121JZ()	0.00012	8.5	4.5	12.5	5.0	0.50	
ECQP1H131JZ()	0.00013	8.5	4.5	12.5	5.0	0.50	
ECQP1H151JZ()	0.00015	8.5	4.5	12.5	5.0	0.50	
ECQP1H161JZ()	0.00016	8.5	4.5	12.5	5.0	0.50	
ECQP1H181JZ()	0.00018	8.5	4.5	12.5	5.0	0.50	
ECQP1H201JZ()	0.00020	8.5	4.5	12.5	5.0	0.50	
ECQP1H221JZ()	0.00022	8.5	4.5	12.5	5.0	0.50	
ECQP1H241JZ()	0.00024	8.5	4.5	12.5	5.0	0.50	
ECQP1H271JZ()	0.00027	8.5	4.5	12.5	5.0	0.50	
ECQP1H301JZ()	0.00030	8.5	4.5	12.5	5.0	0.50	
ECQP1H331□Z()	0.00033	8.5	4.5	12.5	5.0	0.50	
ECQP1H361□Z()	0.00036	8.5	4.5	12.5	5.0	0.50	
ECQP1H391□Z()	0.00039	8.5	4.5	12.5	5.0	0.50	
ECQP1H431□Z()	0.00043	8.5	4.5	12.5	5.0	0.50	
ECQP1H471□Z()	0.00047	8.5	4.5	12.5	5.0	0.50	
ECQP1H511□Z()	0.00051	8.5	4.5	12.5	5.0	0.50	
ECQP1H561□Z()	0.00056	8.5	4.5	12.5	5.0	0.50	
ECQP1H621□Z()	0.00062	8.5	4.5	12.5	5.0	0.50	
ECQP1H681□Z()	0.00068	8.5	4.5	12.5	5.0	0.50	
ECQP1H751□Z()	0.00075	8.5	4.5	12.5	5.0	0.50	
ECQP1H821□Z()	0.00082	8.5	4.5	12.5	5.0	0.50	
ECQP1H911□Z()	0.00091	8.5	4.5	12.5	5.0	0.50	
ECQP1H102□Z()	0.0010	8.5	4.5	12.5	5.0	0.50	
ECQP1H112□Z()	0.0011	8.5	4.5	12.5	5.0	0.50	
ECQP1H122□Z()	0.0012	8.5	4.5	12.5	5.0	0.50	
ECQP1H132□Z()	0.0013	8.5	4.5	12.5	5.0	0.50	
ECQP1H152□Z()	0.0015	8.5	4.5	12.5	5.0	0.50	
ECQP1H162□Z()	0.0016	8.5	4.5	12.5	5.0	0.50	
ECQP1H182□Z()	0.0018	8.5	4.5	12.5	5.0	0.50	
ECQP1H202□Z()	0.0020	8.5	4.5	12.5	5.0	0.50	
ECQP1H222□Z()	0.0022	8.5	4.5	12.5	5.0	0.50	
ECQP1H242□Z()	0.0024	8.5	4.5	12.5	5.0	0.50	
ECQP1H272□Z()	0.0027	8.5	4.5	12.5	5.0	0.50	
ECQP1H302□Z()	0.0030	8.5	4.5	12.5	5.0	0.50	
ECQP1H332□Z()	0.0033	8.5	4.5	12.5	5.0	0.50	
ECQP1H362□Z()	0.0036	8.5	4.5	12.5	5.0	0.50	
ECQP1H392□Z()	0.0039	8.5	4.5	12.5	5.0	0.50	
ECQP1H432□Z()	0.0043	8.5	4.5	12.5	5.0	0.50	
ECQP1H472□Z()	0.0047	8.5	4.5	12.5	5.0	0.50	
ECQP1H512□Z()	0.0051	8.5	4.5	13.0	5.0	0.50	
ECQP1H562□Z()	0.0056	8.5	4.5	13.0	5.0	0.50	
ECQP1H622□Z()	0.0062	8.5	5.0	13.0	5.0	0.50	
ECQP1H682□Z()	0.0068	8.5	5.0	13.0	5.0	0.50	

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

Style N: 0.00010 μF to 0.0068 μF

■ Rating, Dimensions & Quantity/Ammo Box

● Rated voltage : 50 VDC, Capacitance tolerance : $\pm 1\%$ (F), $\pm 2\%$ (G), $\pm 5\%$ (J)

Part No.	Cap. (μ F)	Dimensions (mm)					Quantity
		L _{max.}	T _{max.}	H _{max.}	S	ϕ d	Ammo
ECQP1H752 □Z()	0.0075	12.0	5.0	14.0	5.0	0.60	1000
ECQP1H822 □Z()	0.0082	12.0	5.5	14.0	5.0	0.60	
ECQP1H912 □Z()	0.0091	12.0	5.0	13.5	5.0	0.60	
ECQP1H103 □Z()	0.010	12.0	5.0	13.5	5.0	0.60	
ECQP1H113 □Z()	0.011	12.0	5.0	14.0	5.0	0.60	
ECQP1H123 □Z()	0.012	12.0	5.5	14.0	5.0	0.60	
ECQP1H133 □Z()	0.013	12.0	5.0	14.0	5.0	0.60	
ECQP1H153 □Z()	0.015	12.0	5.0	14.0	5.0	0.60	
ECQP1H163 □Z()	0.016	12.0	5.5	14.0	5.0	0.60	
ECQP1H183 □Z()	0.018	12.0	5.5	14.5	5.0	0.60	
ECQP1H203 □Z()	0.020	12.0	5.5	14.5	5.0	0.60	
ECQP1H223 □Z()	0.022	12.0	5.5	15.5	5.0	0.60	
ECQP1H243 □Z()	0.024	12.0	6.0	15.5	5.0	0.60	500
ECQP1H273 □Z()	0.027	12.0	6.0	16.0	5.0	0.60	
ECQP1H303 □Z()	0.030	12.0	6.5	16.0	5.0	0.60	
ECQP1H333 □Z()	0.033	12.0	6.5	16.5	5.0	0.60	
ECQP1H363 □Z()	0.036	14.5	5.5	17.0	5.0	0.60	
ECQP1H393 □Z()	0.039	14.5	5.5	17.0	5.0	0.60	
ECQP1H433 □Z()	0.043	14.5	6.0	17.0	5.0	0.60	
ECQP1H473 □Z()	0.047	14.5	6.0	17.5	5.0	0.60	
ECQP1H513 □Z()	0.051	14.5	6.5	18.5	5.0	0.60	
ECQP1H563 □Z()	0.056	14.5	6.5	18.5	5.0	0.60	
ECQP1H623 □Z()	0.062	14.5	7.0	19.0	5.0	0.60	
ECQP1H683 □Z()	0.068	14.5	7.0	19.0	5.0	0.60	
ECQP1H753 □Z()	0.075	17.0	6.5	18.5	7.5	0.60	
ECQP1H823 □Z()	0.082	17.0	7.0	19.0	7.5	0.60	
ECQP1H913 □Z()	0.091	17.0	7.0	19.0	7.5	0.60	
ECQP1H104 □Z()	0.10	17.0	7.5	19.5	7.5	0.60	
ECQP1H114 □Z()	0.11	17.0	8.0	20.5	7.5	0.60	400
ECQP1H124 □Z()	0.12	17.0	8.5	20.5	7.5	0.60	
ECQP1H134 □Z()	0.13	17.0	8.5	21.0	7.5	0.60	
ECQP1H154 □Z()	0.15	20.0	8.0	20.5	10.0	0.60	
ECQP1H164 □Z()	0.16	20.0	8.5	20.5	10.0	0.60	
ECQP1H184 □Z()	0.18	20.0	9.0	21.0	10.0	0.60	
ECQP1H204 □Z()	0.20	20.0	9.5	21.5	10.0	0.60	300
ECQP1H224 □Z()	0.22	20.0	9.5	22.0	10.0	0.60	
ECQP1H244 □Z()	0.24	20.0	10.0	22.5	10.0	0.60	
ECQP1H274 □Z()	0.27	20.0	10.5	23.0	10.0	0.60	
ECQP1H304 □Z()	0.30	22.5	9.5	24.0	12.5	0.80	
ECQP1H334 □Z()	0.33	22.5	10.0	24.5	12.5	0.80	
ECQP1H364 □Z()	0.36	22.5	10.5	25.0	12.5	0.80	—
ECQP1H394 □Z()	0.39	22.5	11.0	25.0	12.5	0.80	
ECQP1H434 □Z()	0.43	22.5	11.5	25.5	12.5	0.80	
ECQP1H474 □Z()	0.47	22.5	12.0	26.0	12.5	0.80	


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

Style T: 0.0075 μ F to 0.47 μ F

■ Rating, Dimensions & Quantity/Ammo Box

● Rated voltage : 100 VDC, Capacitance tolerance : $\pm 1\%$ (F), $\pm 2\%$ (G), $\pm 5\%$ (J)

Only $\pm 5\%$ (J) is available from 0.00010 μF to 0.00043 μF , Only $\pm 2\%$ (G), $\pm 5\%$ (J) is available from 0.00047 μF to 0.00091 μF

Part No.	Cap. (μF)	Dimensions (mm)					Quantity
		L _{max.}	T _{max.}	H _{max.}	S	ϕd	Ammo
ECQP1101JZ()	0.00010	10.0	5.0	13.0	5.0	0.60	1000
ECQP1111JZ()	0.00011	10.0	5.0	13.0	5.0	0.60	
ECQP1121JZ()	0.00012	10.0	5.0	13.0	5.0	0.60	
ECQP1131JZ()	0.00013	10.0	5.0	13.0	5.0	0.60	
ECQP1151JZ()	0.00015	10.0	5.0	13.0	5.0	0.60	
ECQP1161JZ()	0.00016	10.0	5.0	13.0	5.0	0.60	
ECQP1181JZ()	0.00018	10.0	5.0	13.0	5.0	0.60	
ECQP1201JZ()	0.00020	10.0	5.0	13.0	5.0	0.60	
ECQP1221JZ()	0.00022	10.0	5.0	13.0	5.0	0.60	
ECQP1241JZ()	0.00024	10.0	5.0	13.0	5.0	0.60	
ECQP1271JZ()	0.00027	10.0	5.0	13.0	5.0	0.60	
ECQP1301JZ()	0.00030	10.0	5.0	13.0	5.0	0.60	
ECQP1331JZ()	0.00033	10.0	5.0	13.0	5.0	0.60	
ECQP1361JZ()	0.00036	10.0	5.0	13.0	5.0	0.60	
ECQP1391JZ()	0.00039	10.0	5.0	13.0	5.0	0.60	
ECQP1431JZ()	0.00043	10.0	5.0	13.0	5.0	0.60	
ECQP1471□Z()	0.00047	10.0	5.0	13.0	5.0	0.60	
ECQP1511□Z()	0.00051	10.0	5.0	13.0	5.0	0.60	
ECQP1561□Z()	0.00056	10.0	5.0	13.0	5.0	0.60	
ECQP1621□Z()	0.00062	10.0	5.0	13.0	5.0	0.60	
ECQP1681□Z()	0.00068	10.0	5.0	13.0	5.0	0.60	
ECQP1751□Z()	0.00075	10.0	5.0	13.0	5.0	0.60	
ECQP1821□Z()	0.00082	10.0	5.0	13.0	5.0	0.60	
ECQP1911□Z()	0.00091	10.0	5.0	13.0	5.0	0.60	
ECQP1102□Z()	0.0010	10.0	5.0	13.0	5.0	0.60	
ECQP1112□Z()	0.0011	10.0	5.0	13.0	5.0	0.60	
ECQP1122□Z()	0.0012	10.0	5.0	13.0	5.0	0.60	
ECQP1132□Z()	0.0013	10.0	5.0	13.0	5.0	0.60	
ECQP1152□Z()	0.0015	10.0	5.0	13.0	5.0	0.60	
ECQP1162□Z()	0.0016	10.0	5.0	13.0	5.0	0.60	
ECQP1182□Z()	0.0018	10.0	5.0	13.0	5.0	0.60	
ECQP1202□Z()	0.0020	10.0	5.0	13.0	5.0	0.60	
ECQP1222□Z()	0.0022	10.0	5.0	13.0	5.0	0.60	
ECQP1242□Z()	0.0024	10.0	5.0	13.0	5.0	0.60	
ECQP1272□Z()	0.0027	10.0	5.0	13.0	5.0	0.60	
ECQP1302□Z()	0.0030	10.0	5.0	13.0	5.0	0.60	
ECQP1332□Z()	0.0033	10.0	5.0	13.0	5.0	0.60	
ECQP1362□Z()	0.0036	10.0	5.0	13.0	5.0	0.60	
ECQP1392□Z()	0.0039	10.0	5.0	13.0	5.0	0.60	
ECQP1432□Z()	0.0043	10.0	5.0	13.0	5.0	0.60	
ECQP1472□Z()	0.0047	10.0	5.0	13.0	5.0	0.60	
ECQP1512□Z()	0.0051	10.0	5.0	13.0	5.0	0.60	
ECQP1562□Z()	0.0056	10.0	5.0	13.0	5.0	0.60	
ECQP1622□Z()	0.0062	10.0	5.5	13.0	5.0	0.60	
ECQP1682□Z()	0.0068	10.0	5.5	13.0	5.0	0.60	

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

Style N: 0.00010 μF to 0.0068 μF

■ Rating, Dimensions & Quantity/Ammo Box

● Rated voltage : 100 VDC, Capacitance tolerance : $\pm 1\%$ (F), $\pm 2\%$ (G), $\pm 5\%$ (J)

Part No.	Cap. (μ F)	Dimensions (mm)					Quantity
		L max.	T max.	H max.	S	ϕ d	Ammo
ECQP1752□Z()	0.0075	13.0	5.5	14.0	5.0	0.60	1000
ECQP1822□Z()	0.0082	13.0	5.5	14.0	5.0	0.60	
ECQP1912□Z()	0.0091	13.0	5.0	13.0	5.0	0.60	
ECQP1103□Z()	0.010	13.0	5.0	13.5	5.0	0.60	
ECQP1113□Z()	0.011	13.0	5.0	13.5	5.0	0.60	
ECQP1123□Z()	0.012	13.0	5.0	13.5	5.0	0.60	
ECQP1133□Z()	0.013	13.0	5.0	13.5	5.0	0.60	
ECQP1153□Z()	0.015	13.0	5.5	14.0	5.0	0.60	
ECQP1163□Z()	0.016	13.0	5.5	14.0	5.0	0.60	
ECQP1183□Z()	0.018	13.0	6.0	15.0	5.0	0.60	
ECQP1203□Z()	0.020	16.0	5.5	15.0	5.0	0.60	500
ECQP1223□Z()	0.022	16.0	5.5	15.0	5.0	0.60	
ECQP1243□Z()	0.024	16.0	5.5	15.0	5.0	0.60	
ECQP1273□Z()	0.027	16.0	6.0	15.0	5.0	0.60	
ECQP1303□Z()	0.030	16.0	6.0	15.5	5.0	0.60	
ECQP1333□Z()	0.033	16.0	6.5	15.5	5.0	0.60	
ECQP1363□Z()	0.036	16.0	6.5	15.5	5.0	0.60	
ECQP1393□Z()	0.039	16.0	7.0	16.0	5.0	0.60	
ECQP1433□Z()	0.043	16.0	7.5	16.0	5.0	0.60	
ECQP1473□Z()	0.047	16.0	7.5	16.5	5.0	0.60	
ECQP1513□Z()	0.051	18.0	6.5	17.0	7.5	0.60	
ECQP1563□Z()	0.056	18.0	6.5	17.0	7.5	0.60	
ECQP1623□Z()	0.062	18.0	7.0	17.5	7.5	0.60	
ECQP1683□Z()	0.068	18.0	7.0	17.5	7.5	0.60	
ECQP1753□Z()	0.075	18.0	7.0	18.0	7.5	0.60	
ECQP1823□Z()	0.082	18.0	7.0	18.5	7.5	0.60	
ECQP1913□Z()	0.091	18.0	7.5	18.5	7.5	0.60	
ECQP1104□Z()	0.10	18.5	7.5	19.0	7.5	0.60	
ECQP1114□Z()	0.11	18.5	7.5	19.0	10.0	0.60	
ECQP1124□Z()	0.12	18.5	8.5	19.5	10.0	0.60	
ECQP1134□Z()	0.13	18.5	9.0	20.0	10.0	0.60	
ECQP1154□Z()	0.15	18.5	9.5	20.5	10.0	0.60	
ECQP1164□Z()	0.16	18.5	9.5	20.5	12.5	0.60	
ECQP1184□Z()	0.18	19.0	10.0	21.0	12.5	0.60	—
ECQP1204□Z()	0.20	19.0	10.5	21.5	12.5	0.60	
ECQP1224□Z()	0.22	19.0	11.0	22.0	12.5	0.60	300
ECQP1244□Z()	0.24	25.0	9.0	21.5	12.5	0.80	—
ECQP1274□Z()	0.27	25.0	9.5	22.0	12.5	0.80	
ECQP1304□Z()	0.30	25.0	10.0	22.5	12.5	0.80	
ECQP1334□Z()	0.33	25.0	10.0	23.0	12.5	0.80	
ECQP1364□Z()	0.36	25.0	10.5	23.5	12.5	0.80	
ECQP1394□Z()	0.39	25.0	11.0	24.0	12.5	0.80	
ECQP1434□Z()	0.43	25.0	11.5	24.5	12.5	0.80	
ECQP1474□Z()	0.47	25.0	12.0	25.0	12.5	0.80	

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

Style T: 0.0075 μ F to 0.15 μ F, 0.24 μ F to 0.47 μ F
 Style N: 0.16 μ F to 0.22 μ F

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