

Metallized Polypropylene Film Capacitor

Type: **ECWF(L)**

Designed for high frequency and current applications.

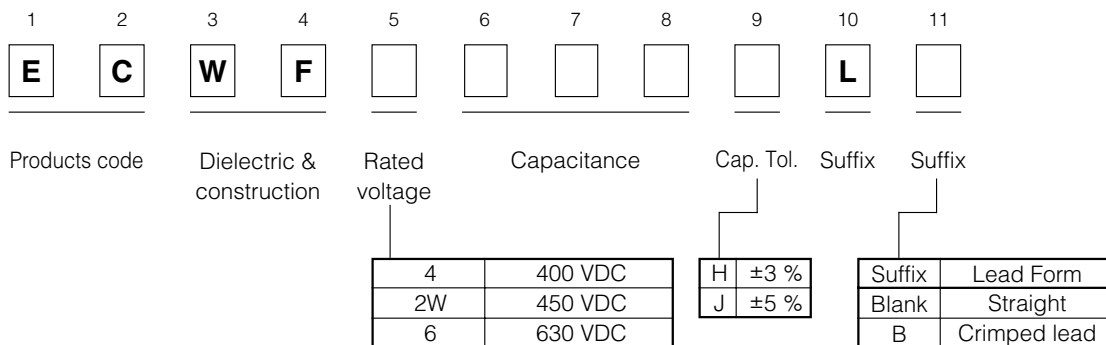
■Features

- Small size
- Excellent frequency characteristics
- Low loss
- 85 °C, 85 % RH, W.V.×1.0 for 500 hours
- RoHS directive compliant

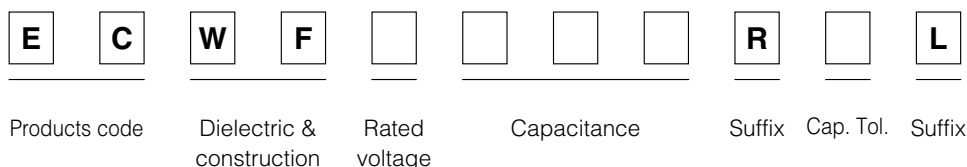
■Recommended Applications

- Lighting
- High frequency and high current circuits
(TVs, Monitors, Power Supplies, etc.)

■Explanation of Part Numbers



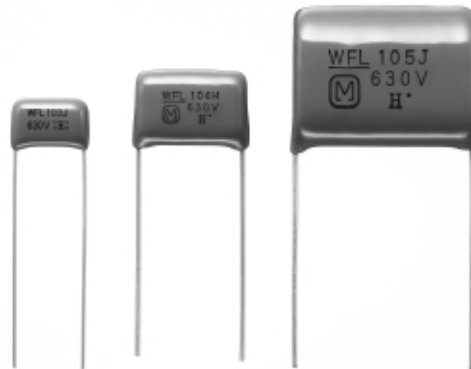
●Explanation of Part Numbers for Odd Size Taping



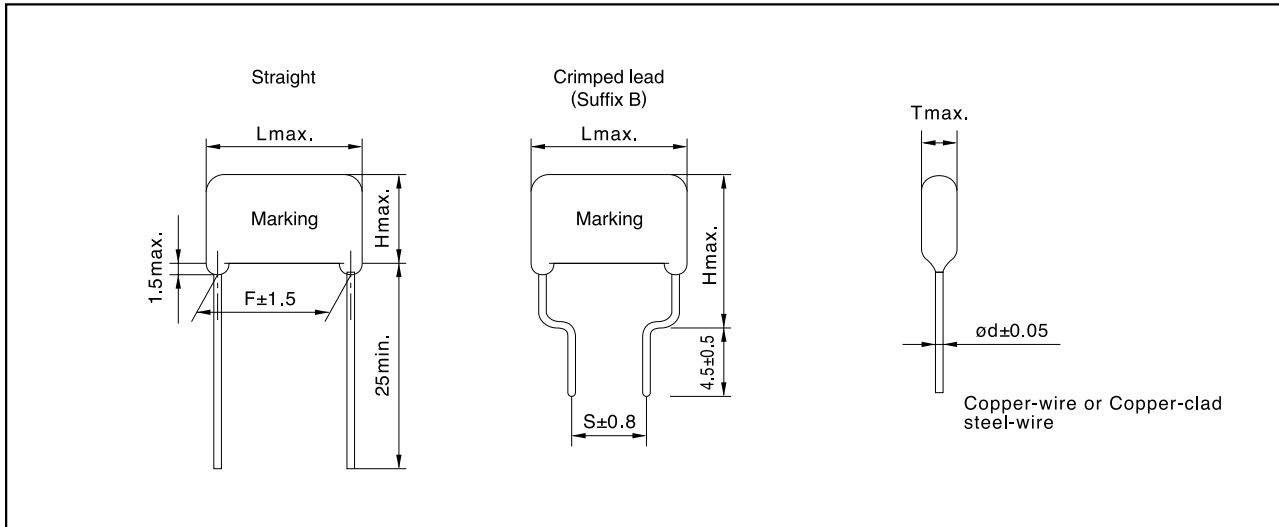
■Specifications

Category temp. range (Including temperature-rise on unit surface)	-40 °C to +105 °C (450 VDC, 1.1 uF or more -40 °C to +85 °C)	
Rated voltage	400 VDC, 450 VDC, 630 VDC	
Capacitance range	400 VDC	0.022 uF to 2.4 uF
	450 VDC	0.022 uF to 2.4 uF
	630 VDC	0.010 uF to 1.3 uF
Capacitance tolerance	±3 % (H), ±5 % (J)	
Withstand voltage	Between terminals : Rated voltage(VDC)×150 % 60 s	
Dissipation factor (tan δ)	tan δ ≤ 0.05% (20 °C, 1kHz)	
	tan δ ≤ 0.20% (20 °C, 10kHz)	
Insulation resistance (IR)	C ≤ 0.33 uF : IR ≥ 9000 MΩ (20 °C, 100 VDC, 60 s for 400 VDC, 450 VDC)	
	C > 0.33 uF : IR ≥ 3000 MΩ · uF (20 °C, 500 VDC, 60 s for 630 VDC)	

* 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".



■Dimensions in mm (not to scale)

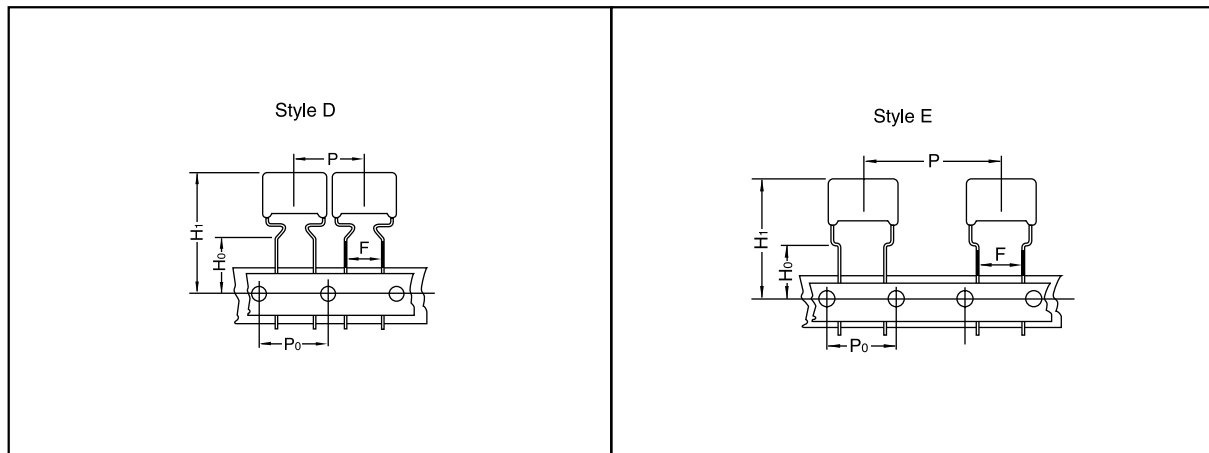


■Packaging Specification for Bulk Package

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	B	C	D		
ECWF(L)	400 VDC	0.022 to 0.091					○		R()L
	450 VDC	0.10 to 1.0					○		R()L
	630 VDC	0.010 to 0.043					○		R()L
		0.047 to 0.43					○		R()L

●Lead Spacing

Style	Lead Spacing
D	7.5 mm
E	7.5 mm

■ Rating, Dimensions & Quantity/Ammo Box

● Type ECWF(L) Rated voltage : 400 VDC

Part No.	Cap. (μ F)	Dimensions (mm)							Quantity
		L _{max}	T _{max}	H _{max}		F		S	Ammo 7.5 mm
				Straight	Crimped lead	Straight	Crimped lead	ϕ d	
ECWF4223□L()	0.022	12.5	5.8	8.6	13.6	10.0	7.5	0.6	1100
ECWF4243□L()	0.024	12.5	6.0	8.8	13.8	10.0	7.5	0.6	
ECWF4273□L()	0.027	12.5	6.2	9.0	14.0	10.0	7.5	0.6	
ECWF4303□L()	0.030	12.5	6.4	9.3	14.3	10.0	7.5	0.6	1000
ECWF4333□L()	0.033	12.5	6.7	9.5	14.5	10.0	7.5	0.6	
ECWF4363□L()	0.036	12.5	5.7	8.4	13.4	10.0	7.5	0.6	900
ECWF4393□L()	0.039	12.5	5.8	8.6	13.6	10.0	7.5	0.6	
ECWF4433□L()	0.043	12.5	6.0	8.8	13.8	10.0	7.5	0.6	
ECWF4473□L()	0.047	12.5	6.2	9.0	14.0	10.0	7.5	0.6	1100
ECWF4513□L()	0.051	12.5	6.4	9.2	14.2	10.0	7.5	0.6	
ECWF4563□L()	0.056	12.5	6.6	9.4	14.4	10.0	7.5	0.6	
ECWF4623□L()	0.062	13.0	6.8	9.6	14.6	10.0	7.5	0.8	900
ECWF4683□L()	0.068	13.0	7.0	9.9	14.9	10.0	7.5	0.8	
ECWF4753□L()	0.075	13.0	7.3	10.1	15.1	10.0	7.5	0.8	
ECWF4823□L()	0.082	13.0	7.5	10.4	15.4	10.0	7.5	0.8	800
ECWF4913□L()	0.091	13.0	7.8	10.7	15.7	10.0	7.5	0.8	
ECWF4104□L()	0.10	15.5	6.5	11.0	16.0	12.5	7.5	0.8	
ECWF4114□L()	0.11	15.5	6.8	11.3	16.3	12.5	7.5	0.8	
ECWF4124□L()	0.12	15.5	7.0	11.5	16.5	12.5	7.5	0.8	400
ECWF4134□L()	0.13	15.5	7.2	11.8	16.8	12.5	7.5	0.8	
ECWF4154□L()	0.15	15.5	7.6	12.2	17.2	12.5	7.5	0.8	
ECWF4164□L()	0.16	15.5	7.8	12.4	17.4	12.5	7.5	0.8	
ECWF4184□L()	0.18	15.5	8.2	12.8	17.8	12.5	7.5	0.8	
ECWF4204□L()	0.20	15.5	8.6	13.3	18.3	12.5	7.5	0.8	
ECWF4224□L()	0.22	15.5	9.0	13.6	18.6	12.5	7.5	0.8	
ECWF4244□L()	0.24	18.0	8.3	13.0	18.0	15.0	10.0	0.8	300
ECWF4274□L()	0.27	18.0	8.8	13.4	18.4	15.0	10.0	0.8	
ECWF4304□L()	0.30	18.0	9.2	13.9	18.9	15.0	10.0	0.8	
ECWF4334□L()	0.33	18.0	9.6	14.3	19.3	15.0	10.0	0.8	
ECWF4364□L()	0.36	18.0	9.9	14.7	19.7	15.0	10.0	0.8	
ECWF4394□L()	0.39	18.0	10.3	15.1	20.1	15.0	10.0	0.8	
ECWF4434□L()	0.43	18.0	10.7	15.6	20.6	15.0	10.0	0.8	
ECWF4474□L()	0.47	18.0	11.2	16.1	21.1	15.0	10.0	0.8	200
ECWF4514□L()	0.51	20.5	10.3	16.8	21.8	17.5	12.5	0.8	300
ECWF4564□L()	0.56	20.5	10.7	17.3	22.3	17.5	12.5	0.8	
ECWF4624□L()	0.62	20.5	11.3	17.9	22.9	17.5	12.5	0.8	200
ECWF4684□L()	0.68	20.5	11.8	18.5	23.5	17.5	12.5	0.8	
ECWF4754□L()	0.75	20.5	12.3	19.1	24.1	17.5	12.5	0.8	
ECWF4824□L()	0.82	23.0	11.8	18.5	23.5	20.0	12.5	0.8	
ECWF4914□L()	0.91	23.0	12.4	19.2	24.2	20.0	12.5	0.8	
ECWF4105□L()	1.0	23.0	13.0	19.8	24.8	20.0	12.5	0.8	
ECWF4115□L()	1.1	23.0	13.6	20.5	25.5	20.0	12.5	0.8	
ECWF4125□L()	1.2	28.0	12.3	19.1	24.1	25.0	17.5	0.8	—
ECWF4135□L()	1.3	28.0	12.8	19.6	24.6	25.0	17.5	0.8	
ECWF4155□L()	1.5	28.0	13.7	20.7	25.7	25.0	17.5	0.8	
ECWF4165□L()	1.6	28.0	14.2	21.2	26.2	25.0	17.5	0.8	
ECWF4185□L()	1.8	28.0	15.2	22.2	27.2	25.0	17.5	0.8	
ECWF4205□L()	2.0	28.0	16.0	23.1	28.1	25.0	17.5	0.8	
ECWF4225□L()	2.2	28.0	16.8	24.0	29.0	25.0	17.5	0.8	
ECWF4245□L()	2.4	28.0	17.5	24.8	29.8	25.0	17.5	0.8	

Suffix for lead crimped
 Capacitance tolerance code

■ Rating, Dimensions & Quantity/Ammo Box

● Type ECWF(L) Rated voltage : 450 VDC

Part No.	Cap. (μ F)	Dimensions (mm)							Quantity Ammo 7.5 mm	
		L _{max}	T _{max}	H _{max}		F		S		ϕ d
				Straight	Crimped lead	Straight	Crimped lead			
ECWF2W223□L()	0.022	12.5	5.8	8.6	13.6	10.0	7.5	0.6	1100	
ECWF2W243□L()	0.024	12.5	6.0	8.8	13.8	10.0	7.5	0.6		
ECWF2W273□L()	0.027	12.5	6.2	9.0	14.0	10.0	7.5	0.6		
ECWF2W303□L()	0.030	12.5	6.4	9.3	14.3	10.0	7.5	0.6	1000	
ECWF2W333□L()	0.033	12.5	6.7	9.5	14.5	10.0	7.5	0.6		
ECWF2W363□L()	0.036	12.5	5.7	8.4	13.4	10.0	7.5	0.6	900	
ECWF2W393□L()	0.039	12.5	5.8	8.6	13.6	10.0	7.5	0.6		
ECWF2W433□L()	0.043	12.5	6.0	8.8	13.8	10.0	7.5	0.6		
ECWF2W473□L()	0.047	12.5	6.2	9.0	14.0	10.0	7.5	0.6	1100	
ECWF2W513□L()	0.051	12.5	6.4	9.2	14.2	10.0	7.5	0.6		
ECWF2W563□L()	0.056	12.5	6.6	9.4	14.4	10.0	7.5	0.6	1000	
ECWF2W623□L()	0.062	13.0	6.8	9.6	14.6	10.0	7.5	0.8		
ECWF2W683□L()	0.068	13.0	7.0	9.9	14.9	10.0	7.5	0.8		
ECWF2W753□L()	0.075	13.0	7.3	10.1	15.1	10.0	7.5	0.8	900	
ECWF2W823□L()	0.082	13.0	7.5	10.4	15.4	10.0	7.5	0.8		
ECWF2W913□L()	0.091	13.0	7.8	10.7	15.7	10.0	7.5	0.8	800	
ECWF2W104□L()	0.10	15.5	6.5	11.0	16.0	12.5	7.5	0.8		
ECWF2W114□L()	0.11	15.5	6.8	11.3	16.3	12.5	7.5	0.8		
ECWF2W124□L()	0.12	15.5	7.0	11.5	16.5	12.5	7.5	0.8	400	
ECWF2W134□L()	0.13	15.5	7.2	11.8	16.8	12.5	7.5	0.8		
ECWF2W154□L()	0.15	15.5	7.6	12.2	17.2	12.5	7.5	0.8		
ECWF2W164□L()	0.16	15.5	7.8	12.4	17.4	12.5	7.5	0.8		
ECWF2W184□L()	0.18	15.5	8.2	12.8	17.8	12.5	7.5	0.8		
ECWF2W204□L()	0.20	15.5	8.6	13.3	18.3	12.5	7.5	0.8		
ECWF2W224□L()	0.22	15.5	9.0	13.6	18.6	12.5	7.5	0.8	300	
ECWF2W244□L()	0.24	18.0	8.3	13.0	18.0	15.0	10.0	0.8		
ECWF2W274□L()	0.27	18.0	8.8	13.4	18.4	15.0	10.0	0.8		
ECWF2W304□L()	0.30	18.0	9.2	13.9	18.9	15.0	10.0	0.8		
ECWF2W334□L()	0.33	18.0	9.6	14.3	19.3	15.0	10.0	0.8		
ECWF2W364□L()	0.36	18.0	9.9	14.7	19.7	15.0	10.0	0.8		
ECWF2W394□L()	0.39	18.0	10.3	15.1	20.1	15.0	10.0	0.8	200	
ECWF2W434□L()	0.43	18.0	10.7	15.6	20.6	15.0	10.0	0.8		
ECWF2W474□L()	0.47	18.0	11.2	16.1	21.1	15.0	10.0	0.8	300	
ECWF2W514□L()	0.51	20.5	10.3	16.8	21.8	17.5	12.5	0.8		
ECWF2W564□L()	0.56	20.5	10.7	17.3	22.3	17.5	12.5	0.8		
ECWF2W624□L()	0.62	20.5	11.3	17.9	22.9	17.5	12.5	0.8	200	
ECWF2W684□L()	0.68	20.5	11.8	18.5	23.5	17.5	12.5	0.8		
ECWF2W754□L()	0.75	20.5	12.3	19.1	24.1	17.5	12.5	0.8		
ECWF2W824□L()	0.82	23.0	11.8	18.5	23.5	20.0	12.5	0.8		
ECWF2W914□L()	0.91	23.0	12.4	19.2	24.2	20.0	12.5	0.8	—	
ECWF2W105□L()	1.0	23.0	13.0	19.8	24.8	20.0	12.5	0.8		
ECWF2W115□L()	1.1	23.0	13.6	20.5	25.5	20.0	12.5	0.8		
ECWF2W125□L()	1.2	28.0	12.3	19.1	24.1	25.0	17.5	0.8		
ECWF2W135□L()	1.3	28.0	12.8	19.6	24.6	25.0	17.5	0.8		
ECWF2W155□L()	1.5	28.0	13.7	20.7	25.7	25.0	17.5	0.8		
ECWF2W165□L()	1.6	28.0	14.2	21.2	26.2	25.0	17.5	0.8		
ECWF2W185□L()	1.8	28.0	15.2	22.2	27.2	25.0	17.5	0.8	—	
ECWF2W205□L()	2.0	28.0	16.0	23.1	28.1	25.0	17.5	0.8		
ECWF2W225□L()	2.2	28.0	16.8	24.0	29.0	25.0	17.5	0.8		
ECWF2W245□L()	2.4	28.0	17.5	24.8	29.8	25.0	17.5	0.8		

Suffix for lead crimped
 Capacitance tolerance code

■ Rating, Dimensions & Quantity/Ammo Box

● Type ECWF(L) Rated voltage : 630 VDC

Part No.	Cap. (μ F)	Dimensions (mm)							Quantity
		L _{max}	T _{max}	H _{max}		F		S	Ammo 7.5 mm
				Straight	Crimped lead	Straight	Crimped lead	ϕ d	
ECWF6103□L()	0.010	12.5	5.2	8.0	13.0	10.0	7.5	0.6	1200
ECWF6113□L()	0.011	12.5	5.4	8.2	13.2	10.0	7.5	0.6	
ECWF6123□L()	0.012	12.5	5.5	8.3	13.3	10.0	7.5	0.6	
ECWF6133□L()	0.013	12.5	5.6	8.5	13.5	10.0	7.5	0.6	1100
ECWF6153□L()	0.015	12.5	5.9	8.7	13.7	10.0	7.5	0.6	
ECWF6163□L()	0.016	12.5	6.0	8.9	13.9	10.0	7.5	0.6	
ECWF6183□L()	0.018	12.5	6.2	9.1	14.1	10.0	7.5	0.6	1000
ECWF6203□L()	0.020	12.5	6.5	9.3	14.3	10.0	7.5	0.6	
ECWF6223□L()	0.022	12.5	6.2	9.0	14.0	10.0	7.5	0.6	
ECWF6243□L()	0.024	12.5	6.4	9.2	14.2	10.0	7.5	0.6	900
ECWF6273□L()	0.027	13.0	6.6	9.5	14.5	10.0	7.5	0.8	
ECWF6303□L()	0.030	13.0	6.9	9.7	14.7	10.0	7.5	0.8	
ECWF6333□L()	0.033	13.0	7.1	10.0	15.0	10.0	7.5	0.8	800
ECWF6363□L()	0.036	13.0	7.3	10.2	15.2	10.0	7.5	0.8	
ECWF6393□L()	0.039	13.0	7.6	10.4	15.4	10.0	7.5	0.8	
ECWF6433□L()	0.043	13.0	7.9	10.7	15.7	10.0	7.5	0.8	500
ECWF6473□L()	0.047	15.5	6.4	10.8	15.8	12.5	7.5	0.8	
ECWF6513□L()	0.051	15.5	6.6	11.0	16.0	12.5	7.5	0.8	
ECWF6563□L()	0.056	15.5	6.8	11.2	16.2	12.5	7.5	0.8	400
ECWF6623□L()	0.062	15.5	7.1	11.5	16.5	12.5	7.5	0.8	
ECWF6683□L()	0.068	15.5	7.4	11.8	16.8	12.5	7.5	0.8	
ECWF6753□L()	0.075	15.5	7.7	12.1	17.1	12.5	7.5	0.8	300
ECWF6823□L()	0.082	15.5	8.0	12.4	17.4	12.5	7.5	0.8	
ECWF6913□L()	0.091	15.5	8.3	12.7	17.7	12.5	7.5	0.8	
ECWF6104□L()	0.10	18.0	7.7	12.1	17.1	15.0	10.0	0.8	200
ECWF6114□L()	0.11	18.0	8.0	12.4	17.4	15.0	10.0	0.8	
ECWF6124□L()	0.12	18.0	8.3	12.7	17.7	15.0	10.0	0.8	
ECWF6134□L()	0.13	18.0	8.5	13.0	18.0	15.0	10.0	0.8	300
ECWF6154□L()	0.15	18.0	9.1	13.5	18.5	15.0	10.0	0.8	
ECWF6164□L()	0.16	18.0	9.3	13.8	18.8	15.0	10.0	0.8	
ECWF6184□L()	0.18	18.0	9.8	14.2	19.1	15.0	10.0	0.8	200
ECWF6204□L()	0.20	18.0	10.3	14.7	19.7	15.0	10.0	0.8	
ECWF6224□L()	0.22	18.0	10.8	15.5	20.5	15.0	10.0	0.8	
ECWF6244□L()	0.24	18.0	11.2	15.9	20.9	15.0	10.0	0.8	300
ECWF6274□L()	0.27	20.5	10.4	16.7	21.7	17.5	12.5	0.8	
ECWF6304□L()	0.30	20.5	10.9	17.2	22.2	17.5	12.5	0.8	
ECWF6334□L()	0.33	20.5	11.4	17.7	22.7	17.5	12.5	0.8	200
ECWF6364□L()	0.36	20.5	11.9	18.5	23.5	17.5	12.5	0.8	
ECWF6394□L()	0.39	20.5	12.4	19.0	24.0	17.5	12.5	0.8	
ECWF6434□L()	0.43	20.5	13.0	19.5	24.5	17.5	12.5	0.8	—
ECWF6474□L()	0.47	20.5	13.5	20.1	25.1	17.5	12.5	0.8	
ECWF6514□L()	0.51	28.0	11.1	17.3	22.3	25.0	17.5	0.8	
ECWF6564□L()	0.56	28.0	11.6	17.8	22.8	25.0	17.5	0.8	—
ECWF6624□L()	0.62	28.0	12.1	18.7	23.7	25.0	17.5	0.8	
ECWF6684□L()	0.68	28.0	12.7	19.3	24.3	25.0	17.5	0.8	
ECWF6754□L()	0.75	28.0	13.3	19.9	24.9	25.0	17.5	0.8	—
ECWF6824□L()	0.82	28.0	13.9	20.5	25.5	25.0	17.5	0.8	
ECWF6914□L()	0.91	28.0	14.6	21.2	26.2	25.0	17.5	0.8	
ECWF6105□L()	1.0	28.0	15.5	22.3	27.3	25.0	17.5	0.8	—
ECWF6115□L()	1.1	28.0	16.3	23.0	28.0	25.0	17.5	0.8	
ECWF6125□L()	1.2	28.0	17.0	23.7	28.7	25.0	17.5	0.8	
ECWF6135□L()	1.3	28.0	17.6	24.4	29.4	25.0	17.5	0.8	

Suffix for lead crimped
 Capacitance tolerance code