

**UPGRADE**

## Metallized Polypropylene Film Capacitor (For Automotive)

**ECWFG** series

**Non-inductive construction using metallized polypropylene film with flame retardant plastic case.**



### Features

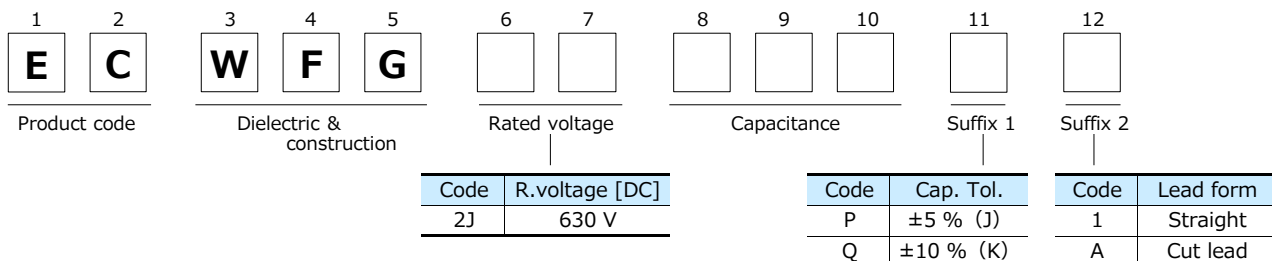
- High safety (with safety function)
- High moisture resistance (85°C, 85%)
  - 630 V : 500 V, 1000 h
  - 700 V : 500 V, 1000 h
  - 800 V : 560 V, 500 h
  - 1100 V : 700 V, 500 h (C < 2.0 μF) / 770 V, 500 h (C ≥ 2.0 μF)
- High thermal shock resistance (630 to 1100 V : -55°C ⇔ 85°C, 1000 cycles)
- High temperature load test (125°C)
  - 630 V : 450 V, 1000 h
  - 700 V : 450 V, 1000 h
  - 800 V : 480 V, 1000 h
  - 1100 V : 660 V, 1000 h
- Flame-retardant plastic case and non-combustible resin
- AEC-Q200 compliant
- RoHS compliant

### Recommended applications

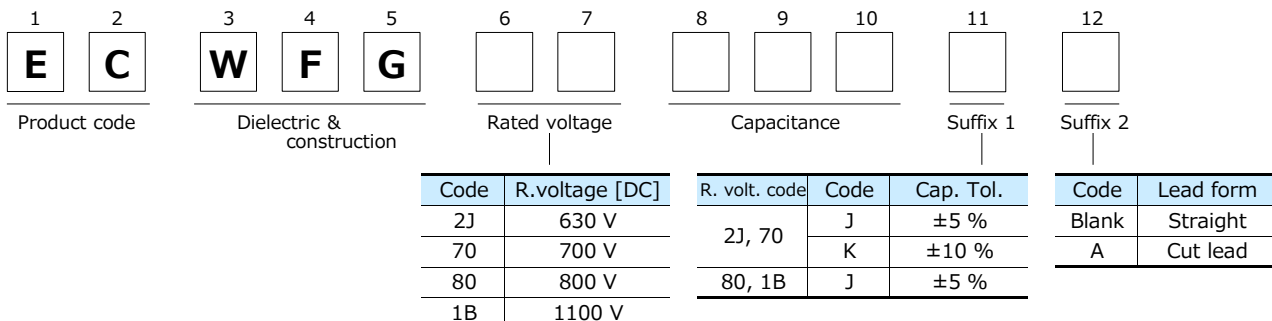
- DC/DC, AC/DC converter circuit in xEV
- High frequency and high current circuits

### Explanation of part number

#### ■ Lead pitch : 22.5 mm



#### ■ Lead pitch : 27.5 mm

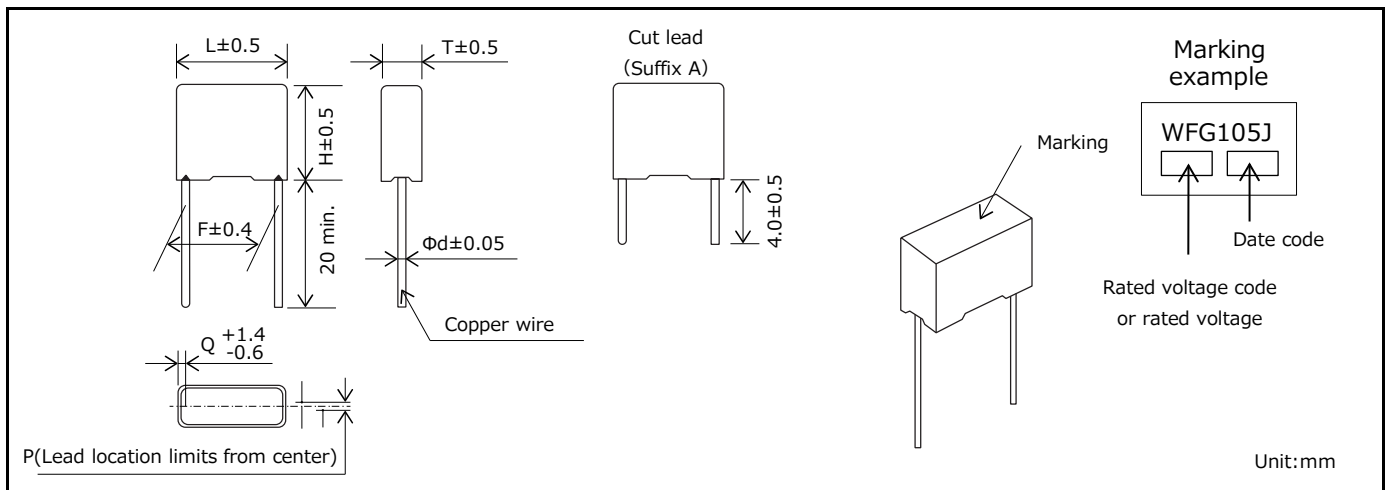


**Specifications**

Category temp. range (Including temperature-rise on unit surface)	-40 °C to +110 °C		
Rated voltage [DC]	630 V to 1100 V ( Derating of rated voltage by 1.0 % / °C at more than 85 °C)		
Capacitance range	630 V	Lead pitch : 22.5 mm	1.0 μF to 3.0 μF
		Lead pitch : 27.5 mm	1.0 μF to 4.7 μF
	700 V	Lead pitch : 27.5 mm	1.0 μF to 4.7 μF
	800 V	Lead pitch : 27.5 mm	2.0 μF to 8.0 μF
	1100 V	Lead pitch : 27.5 mm	1.0 μF to 5.0 μF
Capacitance tolerance	±5% (J), ±10 % (K)		
Dissipation factor (tan δ)	tan δ ≤ 0.1 % (20 °C, 1 kHz)		
Withstand voltage	Between terminals : Rated voltage (V) × 150 % 60 s		
Insulation resistance (IR)	IR ≥ 3,000 MΩ·μF (20 °C, 500 V [DC], 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".

**Dimensions**



**Rating · Dimensions · Quantity**

■ Rated voltage [DC] : 630 V, Capacitance tolerance : ±5 % (J), ±10 % (K)  
 [ Lead pitch : 22.5 mm ]

Part No	Cap. (μF)	Dimensions (mm)							Min. order Q'ty (PCS)	
		L	T	H	F	Φd	P	Q	Straight	Cut lead
ECWFG2J105P( )	1.0	27.0	10.5	19.0	22.5	1.0	0±0.8	2.25	400	350
ECWFG2J105Q( )										
ECWFG2J155P( )	1.5	27.0	12.0	21.0	22.5	1.0	0±0.8	2.25	300	300
ECWFG2J155Q( )										
ECWFG2J225P( )	2.2	27.0	15.5	24.0	22.5	1.0	0±0.8	2.25	200	250
ECWFG2J225Q( )										
ECWFG2J305P( )	3.0	27.0	17.5	26.5	22.5	1.0	0±0.8	2.25	150	150
ECWFG2J305Q( )										

\* ( ) : Suffix for lead crimped

[ Lead pitch : 27.5 mm ]

Part No	Cap. (μF)	Dimensions (mm)							Min. order Q'ty (PCS)	
		L	T	H	F	Φd	P	Q	Straight	Cut lead
ECWFG2J105□( )	1.0	31.5	9.5	18.0	27.5	1.0	0±0.8	2.0	400	350
ECWFG2J155□( )	1.5	31.5	10.5	21.0	27.5	1.0	0±0.8	2.0	300	300
ECWFG2J225□( )	2.2	31.5	12.0	24.5	27.5	1.0	0±0.8	2.0	200	250
ECWFG2J305□( )	3.0	31.5	13.5	28.5	27.5	1.0	0±0.8	2.0	150	150
ECWFG2J475□( )	4.7	31.5	17.5	32.5	27.5	1.0	0±0.8	2.0	100	100

\* □ : Capacitance tolerance code

\* ( ) : Suffix for lead crimped

## Rating · Dimensions · Quantity

■ Rated voltage [DC] : 700 V, Capacitance tolerance :  $\pm 5\%$ (J),  $\pm 10\%$ (K)

NEW Part No	Cap. ( $\mu$ F)	Dimensions (mm)							Min. order Q'ty (PCS)	
		L	T	H	F	$\Phi$ d	P	Q	Straight	Cut lead
		ECWFG70105□( )	1.0	31.5	9.5	18.0	27.5	1.0		
ECWFG70155□( )	1.5	31.5	10.5	21.0	27.5	1.0	0 $\pm$ 0.8	2.0	300	300
ECWFG70205□( )	2.0	31.5	12.0	24.5	27.5	1.0	0 $\pm$ 0.8	2.0	200	250
ECWFG70225□( )	2.2	31.5	12.0	24.5	27.5	1.0	0 $\pm$ 0.8	2.0	200	250
ECWFG70305□( )	3.0	31.5	13.5	28.5	27.5	1.0	0 $\pm$ 0.8	2.0	150	150
ECWFG70395□( )	3.9	31.5	17.5	32.5	27.5	1.0	0 $\pm$ 0.8	2.0	100	100
ECWFG70475□( )	4.7	31.5	17.5	32.5	27.5	1.0	0 $\pm$ 0.8	2.0	100	100

\* □ : Capacitance tolerance code

\* ( ) : Suffix for lead crimped

■ Rated voltage [DC] : 800 V, Capacitance tolerance :  $\pm 5\%$ (J)

NEW Part No	Cap. ( $\mu$ F)	Dimensions (mm)							Min. order Q'ty (PCS)	
		L	T	H	F	$\Phi$ d	P	Q	Straight	Cut lead
		ECWFG80205J( )	2.0	31.5	10.5	21.0	27.5	0.8		
ECWFG80225J( )	2.2	31.5	10.5	21.0	27.5	0.8	0 $\pm$ 1.0	2.0	300	300
ECWFG80275J( )	2.7	31.5	12.0	24.5	27.5	0.8	0 $\pm$ 1.0	2.0	200	250
ECWFG80305J( )	3.0	31.5	12.0	24.5	27.5	0.8	0 $\pm$ 1.0	2.0	200	250
ECWFG80335J( )	3.3	31.5	12.0	24.5	27.5	0.8	0 $\pm$ 1.0	2.0	200	250
ECWFG80355J( )	3.5	31.5	13.5	28.5	27.5	0.8	0 $\pm$ 1.0	2.0	150	150
ECWFG80395J( )	3.9	31.5	13.5	28.5	27.5	0.8	0 $\pm$ 1.0	2.0	150	150
ECWFG80405J( )	4.0	31.5	13.5	28.5	27.5	0.8	0 $\pm$ 1.0	2.0	150	150
ECWFG80475J( )	4.7	31.5	13.5	28.5	27.5	0.8	0 $\pm$ 1.0	2.0	150	150
ECWFG80505J( )	5.0	31.5	16.0	29.5	27.5	0.8	0 $\pm$ 1.0	2.0	150	100
ECWFG80565J( )	5.6	31.5	16.0	29.5	27.5	0.8	0 $\pm$ 1.0	2.0	150	100
ECWFG80605J( )	6.0	31.5	16.0	29.5	27.5	0.8	0 $\pm$ 1.0	2.0	150	100
ECWFG80685J( )	6.8	31.5	17.5	32.5	27.5	0.8	0 $\pm$ 1.0	2.0	150	100
ECWFG80705J( )	7.0	31.5	17.5	32.5	27.5	0.8	0 $\pm$ 1.0	2.0	150	100
ECWFG80755J( )	7.5	31.5	17.5	32.5	27.5	0.8	0 $\pm$ 1.0	2.0	150	100
ECWFG80805J( )	8.0	31.5	17.5	32.5	27.5	0.8	0 $\pm$ 1.0	2.0	150	100

\* ( ) : Suffix for lead crimped

■ Rated voltage [DC] : 1100 V, Capacitance tolerance :  $\pm 5\%$ (J)

NEW Part No	Cap. ( $\mu$ F)	Dimensions (mm)							Min. order Q'ty (PCS)	
		L	T	H	F	$\Phi$ d	P	Q	Straight	Cut lead
		ECWFG1B105J( )	1.0	31.5	10.5	21.0	27.5	0.8		
ECWFG1B155J( )	1.5	31.5	12.0	24.5	27.5	0.8	0 $\pm$ 1.0	2.0	200	250
ECWFG1B205J( )	2.0	31.5	12.0	24.5	27.5	0.8	0 $\pm$ 1.0	2.0		
ECWFG1B225J( )	2.2	31.5	13.5	28.5	27.5	0.8	0 $\pm$ 1.0	2.0	150	150
ECWFG1B305J( )	3.0	31.5	16.0	29.5	27.5	0.8	0 $\pm$ 1.0	2.0		
ECWFG1B335J( )	3.3	31.5	16.0	29.5	27.5	0.8	0 $\pm$ 1.0	2.0		
ECWFG1B405J( )	4.0	31.5	17.5	32.5	27.5	0.8	0 $\pm$ 1.0	2.0	100	100
ECWFG1B475J( )	4.7	31.5	18.5	35.0	27.5	0.8	0 $\pm$ 1.0	2.0		
ECWFG1B505J( )	5.0	31.5	18.5	35.0	27.5	0.8	0 $\pm$ 1.0	2.0		

\* ( ) : Suffix for lead crimped

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