

Metallized Polypropylene Film Capacitor (For Automotive)

ECQUA series [Class X2]



In accordance with UL/CSA and European safety regulation class X2
Equipped with a safety mechanism

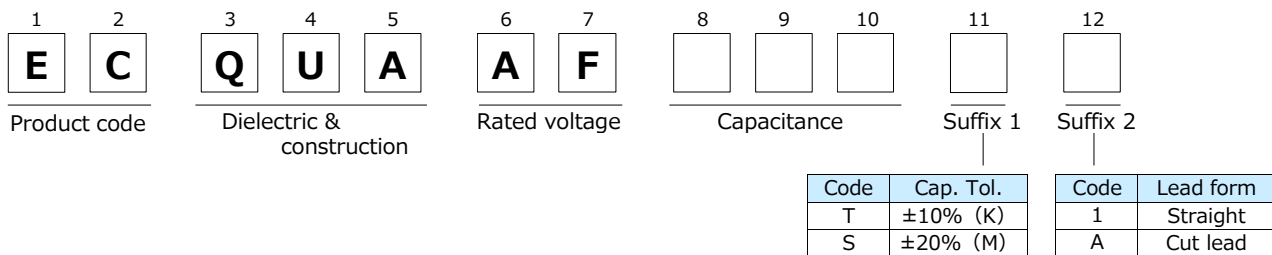
Features

- High safety (safety function installed)
- High humidity resistance (THB test : 85 °C, 85 %, 240 V.AC, 1000 h)
- High Thermal shock resistance (-40 ⇔ 85°C, 1000 cycles)
- Flame-retardant plastic case and non-combustible resin
- AEC-Q200 compliant
- RoHS compliant

Recommended applications

- Interference suppressors for automotive

Explanation of part number



Applicable standard

* It is certified as type ECQUA in the following approval.

Approval		Class	Certification
UL	UL60384-14	Class X2	UL
CSA	CAN/CSA E60384-14	Class X2	
Europe	EN60384-14	Class X2	VDE
International	IEC60384-14	Class X2	

* When applying this capacitor to European and American safety standards, please use type designation and rating such as ECQUA, 0.1 μF.
* Approval number (File No.) of safety regulations are subject to revision without notice. Ask factory for a copy of the latest file No.

Specifications

Category temp. range	-40 °C to +110 °C
Rated voltage	275 V.AC
Capacitance range	0.10 μF to 4.7 μF
Capacitance tolerance	±10 % (K), ±20 % (M)
Dissipation factor (tan δ)	C ≤ 1.0 μF : tan δ ≤ 0.1 % (20 °C, 1 kHz) C > 1.0 μF : tan δ ≤ 0.2 % (20 °C, 1 kHz)
Withstand voltage	Between terminals : 633 V.AC, 1183 V.DC, 60 s Between terminals to enclosure : 2050 V.AC, 60 s
Insulation resistance (IR)	C ≤ 0.33 μF : IR ≥ 15,000 MΩ (20 °C, 100 V.DC, 60 s) C > 0.33 μF : IR ≥ 5,000 MΩ · μF (20 °C, 100 V.DC, 60 s) C ≤ 0.47 μF : IR ≥ 2,000 MΩ (20 °C, 500 V.DC, 60 s)
Maximum AC voltage * *	310 V.AC

* Use of this capacitor is limited to AC voltage (50 Hz or 60 Hz sine wave).

* A faint corona discharge may occur inside of the capacitor element at rated voltage, however there is no influence on the reliability of the capacitor.

* * Maximum AC voltage including line voltage fluctuation is 310 V.AC.

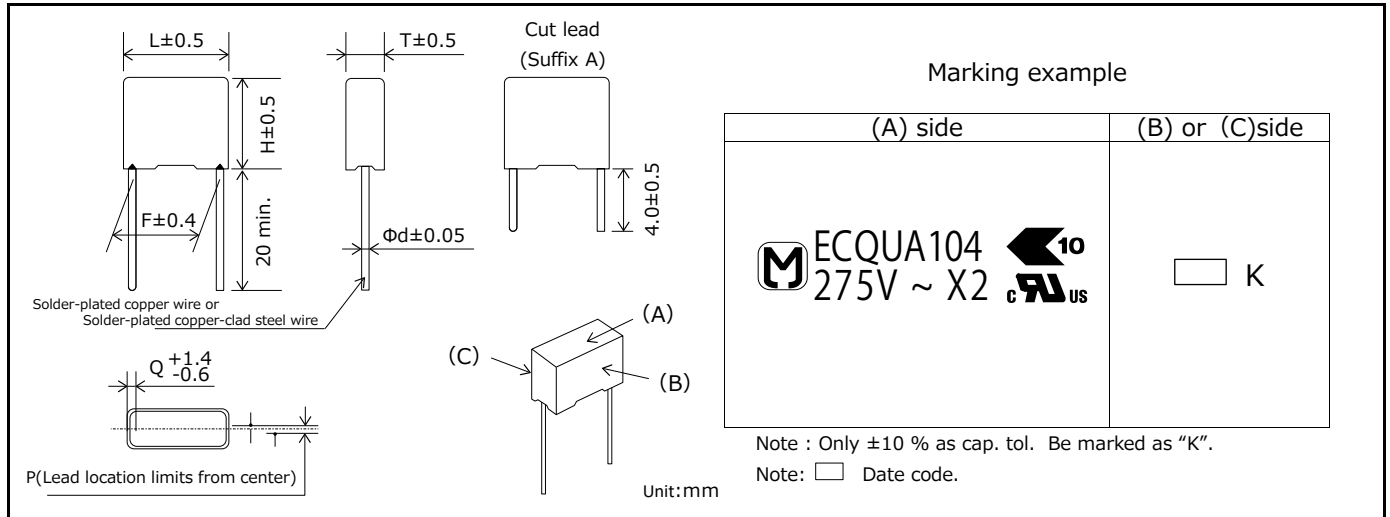
310 V.AC is not nominal continuous applied voltage, but only indicates maximum value including in the voltage of the power supply.

Basic nominal voltage is considered as 240 V.AC.

This maximum AC voltage is specified in only ECQUA type, not specified in other types.

Please refer to individual product specification, and contact us for further questions regarding design life.

Dimensions



Rating · Dimensions · Quantity

Part No.	Cap. (μF)	Dimensions (mm)							Min. order Q'ty			
		L	T	H	F	Φd	P	Q	Straight	Cut lead		
ECQUAAF104T () ECQUAAF104S ()	0.10	17.5	5.0	12.0	15.0	0.6	0 ± 0.8	1.3	1000	1000		
ECQUAAF154T () ECQUAAF154S ()	0.15	17.5	6.0	13.0	15.0	0.6	0 ± 0.8	1.3				
ECQUAAF224T () ECQUAAF224S ()	0.22	17.5	7.5	14.0	15.0	0.6	0 ± 0.8	1.3				
ECQUAAF334T () ECQUAAF334S ()	0.33	17.5	9.0	16.0	15.0	0.6	0 ± 0.8	1.3				
ECQUAAF474T () ECQUAAF474S ()	0.47	26.0	8.5	15.0	22.5	0.8	0 ± 0.8	1.8			600	800
ECQUAAF684T () ECQUAAF684S ()	0.68	26.0	10.0	17.0	22.5	0.8	0 ± 0.8	1.8			500	
ECQUAAF105T () ECQUAAF105S ()	1.0	26.0	12.0	19.0	22.5	0.8	0 ± 0.8	1.8	300	300		
ECQUAAF155T () ECQUAAF155S ()	1.5	31.0	12.0	22.0	27.5	0.8	0 ± 0.8	1.8	200	200		
ECQUAAF225T () ECQUAAF225S ()	2.2	31.0	14.5	24.5	27.5	0.8	0 ± 0.8	1.8				
ECQUAAF335T () ECQUAAF335S ()	3.3	31.0	19.0	29.0	27.5	0.8	0 ± 0.8	1.8	150	150		
ECQUAAF475T () ECQUAAF475S ()	4.7	31.0	23.0	33.0	27.5	0.8	0 ± 0.8	1.8	100	100		

* () : Suffix for lead crimped

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