



















Summary of Products

● Electronic Equipment Use

	Dielectric	Series	Appearance	Operating temp. *	Rating	Structure・Feature	Application
Stacked metallized film chip capacitor	Stacked metallized PPS film chip capacitor	ECHU(X)		-55 °C to +125 °C	0.00010 μF to 0.22 μF [DC] 16 V, 50 V	<ul style="list-style-type: none"> ● Non-inductive, Stacked ● Tight C-Tol. ● Reflow soldering 	● High density mounting
		ECHU(C)		-55 °C to +105 °C	0.010 μF to 0.22 μF [DC] 100 V	<ul style="list-style-type: none"> ● Non-inductive, Stacked ● Tight C-Tol. ● Reflow soldering 	<ul style="list-style-type: none"> ● High density mounting ● Resonance circuit for LCD B/L inverter unit
	Stacked metallized PEN film chip capacitor	ECWU(X)		-55 °C to +105 °C	0.0010 μF to 0.010 μF [DC] 100 V	<ul style="list-style-type: none"> ● Non-inductive ● Reflow soldering 	● High density mounting
		ECWU(C)		-55 °C to +125 °C	0.0010 μF to 1.0 μF [DC] 100 V to 630 V	<ul style="list-style-type: none"> ● Non-inductive ● Reflow soldering 	<ul style="list-style-type: none"> ● Ringer circuit telephone PBX ● DC Blocking for xDSL
	Stacked metallized Plastic film chip capacitor	NRFND ECPU(A)		-40 °C to +85 °C	0.10 μF to 1.0 μF [DC] 16 V	<ul style="list-style-type: none"> ● Non-inductive ● Reflow soldering 	<ul style="list-style-type: none"> ● Noise suppressor ● Audio circuit
Metallized type	Metallized polyester film capacitor	ECQE(F)◆		-40 °C to +105 °C	0.0010 μF to 10 μF [DC] 100 V to 1250 V [AC] 125 V, 250 V	<ul style="list-style-type: none"> ● Epoxy resin coating ● Wide capacitance range 	<ul style="list-style-type: none"> ● General purpose ● Noise suppressor
		ECQE(B)		-40 °C to +105 °C	0.010 μF to 4.7 μF [DC] 250 V [AC] 125 V	<ul style="list-style-type: none"> ● Epoxy resin coating ● Miniaturization of ECQE(F) type 	<ul style="list-style-type: none"> ● General purpose ● Noise suppressor
		ECQE(T)		-40 °C to +105 °C	0.010 μF to 10 μF [DC] 250 V to 630 V [AC] 125 V, 250 V	<ul style="list-style-type: none"> ● Epoxy resin coating ● Excellent moisture resistance 	● Electric circuit of high humidity equipment
	Metallized polypropylene film capacitor	ECWF(L)		-40 °C to +105 °C	0.010 μF to 2.4 μF [DC] 400 V, 630 V	<ul style="list-style-type: none"> ● Epoxy resin coating ● Low D.F ● Excellent moisture resistance 	● High frequency high current circuit
		ECWF(A)		-40 °C to +105 °C	0.10 μF to 6.8 μF [DC] 250 V to 630 V	<ul style="list-style-type: none"> ● High safety (with safety function) ● Miniaturization of ECWF(L) type ● Low D.F 	<ul style="list-style-type: none"> ● Active filtering circuit ● High frequency high current circuit
		ECWFD		-40 °C to +110 °C	0.1 μF to 4.7 μF [DC] 450 V	<ul style="list-style-type: none"> ● High safety (with safety function) ● Epoxy resin coating 	<ul style="list-style-type: none"> ● Active filtering circuit ● High frequency high current circuit
				-40 °C to +105 °C	0.01 μF to 4.7 μF [DC] 630 V	<ul style="list-style-type: none"> ● Low D.F ● Miniaturization of ECWF(A) type 	
		ECWFE		-40 °C to +105 °C	0.10 μF to 4.7 μF [DC] 450 V, 630 V	<ul style="list-style-type: none"> ● High safety (with safety function) ● Box type ● Low D.F 	<ul style="list-style-type: none"> ● Active filtering circuit ● High frequency high current circuit
		ECWH(V)		-40 °C to +105 °C	0.0010 μF to 0.10 μF [DC] 1000 V to 2000 V	<ul style="list-style-type: none"> ● Epoxy resin coating ● Low D.F ● Small in size 	● High frequency high current circuit
		ECWH(A)		-40 °C to +105 °C	0.0010 μF to 0.047 μF [DC] 800 V, 1600 V	<ul style="list-style-type: none"> ● Epoxy resin coating ● Low D.F ● Miniaturization of ECWH(V) type 	● General resonance circuit
	ECWH(C)		-40 °C to +105 °C (+85 °C)	0.0024 μF to 0.33 μF [DC] 630 V to 3000 V	<ul style="list-style-type: none"> ● Epoxy resin coating ● Low D.F 	<ul style="list-style-type: none"> ● General resonance circuit ● Microwave oven ● IH resonance circuit 	
	TMF		-25 °C to +85 °C	(Smoothing circuit) 1 μF to 10 μF [AC] 150 V to 220 V [DC] 350 V to 630 V (Resonance circuit) 0.01 μF to 4.0 μF [AC] 300 V to 2300 V [DC] 500 V to 1200 V	<ul style="list-style-type: none"> ● Wide voltage range up to 2300 V[AC] ● High frequency and high current capability ● Low loss/Low ESR ● Long life time / High reliability ● Flame retardant 	● General resonance and smoothing circuits for IH and Industry	
Interference suppressors (Safety standard approval capacitors)	Metallized polypropylene film capacitor	NRFND ECQUA		-40 °C to +110 °C	0.0082 μF to 10.0 μF [AC] 275 V	<ul style="list-style-type: none"> ● Box type ● UL, CSA, ENEC Approved (Class X2) 	Worldwide ● Noise suppressor for AC line
		NRFND ECQUB			0.001 μF to 1.0 μF [AC] 300 V	<ul style="list-style-type: none"> ● Box type ● UL, CSA, ENEC Approved (Class Y2/X1)(Class X1) 	

* Operating temp. : Including temperature-rise on unit surface.


◆ Some part number have been designated discontinued.

* Refer to each product page for details.




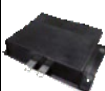




NRFND Not recommended for new design

Summary of Products

● **AC Motor Use**

Dielectric	Series	Appearance	Operating temp. *	Rating	Structure・Feature	Application
Film capacitor for AC motor	PMF		-25 °C to +70 °C	0.5 μF to 65 μF [AC] 150 V to 500 V	<ul style="list-style-type: none"> ● High safety (with safety function) ● High reliability, safety standard approval ● Small size, lightness, and low loss 	<ul style="list-style-type: none"> ● Motor and small compressor (for running)

● **Automotive, Industrial and Infrastructure Use**

Dielectric	Series	Appearance	Operating temp. *	Rating	Structure・Feature	Application
Metallized polyester Film capacitor for noise suppression of automobile	ECQE		-40 °C to +130 °C	0.47 μF, 2.2 μF, 4.7 μF [DC] 250 V	<ul style="list-style-type: none"> ● Box type 	<ul style="list-style-type: none"> ● Noise suppressor for automobile
Metallized polypropylene film capacitors	ECWFG		-40 °C to +110 °C	1.0 μF to 12.0 μF [DC] 600 V to 1100 V	<ul style="list-style-type: none"> ● AEC-Q200 compliant ● High safety (with safety function) ● Excellent moisture resistance ● High thermal shock resistance 	<ul style="list-style-type: none"> ● xEV charging circuit ● DC/DC, AC/DC converter (smoothing, PFC)
Metallized polypropylene film capacitors	NRFND ECQUA		-40 °C to +110 °C	0.1 μF to 10.0 μF [AC] 275 V, 310 V	<ul style="list-style-type: none"> ● AEC-Q200 compliant ● High safety (with safety function) ● Excellent moisture resistance ● High thermal shock resistance ● UL, CSA, ENEC Approved (Class X2) 	<ul style="list-style-type: none"> ● xEV charging circuit ● AC/DC converter (Noise suppression)
DC-Link film capacitor	NRFND Type1		-40 °C to +105 °C	581 μF [DC] 450 V	<ul style="list-style-type: none"> ● High safety, Self-healing and Self-protecting function built in. ● No catastrophic failure upon natural end of life due to inbuilt fuse function. 	<ul style="list-style-type: none"> ● Any automotive and /or other application requiring DC Linkage
Metallized polypropylene film capacitors	EZPE		-40 °C to +85 °C	10 μF to 110 μF [DC] 500 V to 1300 V	<ul style="list-style-type: none"> ● High safety (with safety function) ● Long product life, High reliability ● Low loss, Low ESR ● Flame retardant 	<ul style="list-style-type: none"> ● DC filtering ● DC link circuit
	EZPE (Low profile type)		-40 °C to +85 °C	29 μF : [DC] 450 V 66 μF : [DC] 525 V 12 μF : [DC] 575 V 10 μF : [DC] 630 V	<ul style="list-style-type: none"> ● High safety (with safety function) ● Long product life, High reliability, High moisture resistance ● Low loss, Low ESR ● Flame retardant 	<ul style="list-style-type: none"> ● Solar inverters, Micro inverters ● Wind power generation ● Industrial power supplies ● Inverter circuit in appliances (Air Conditioners etc.)
	EZPQ★		-40 °C to +85 °C	12 μF to 36 μF [AC] 250 V	<ul style="list-style-type: none"> ● High safety (with safety function) ● Long product life, High reliability ● Low loss, Low ESR ● Flame retardant ● High moisture resistance 	<ul style="list-style-type: none"> ● AC Filter ● Solar inverters ● UPS ● Industrial power supplies ● Inverter circuit in appliances
			-40 °C to +105 °C	1 μF to 35 μF [AC] 330 V, 380 V, 600 V		
	EZPV		-40 °C to +105 °C	3 μF to 110 μF [DC] 600 V to 1100 V	<ul style="list-style-type: none"> ● High Safety (with safety function) ● Long product life, High reliability ● Low loss, Low ESR ● Flame retardant (Case and sealing resin) ● AEC-Q200 compliant (For automotive Part No.) 	<ul style="list-style-type: none"> ● For DC filtering ● DC link circuit ● Solar inverters ● Wind power generation ● Industrial power supplies ● Inverter circuit in appliances ● On board charger

* Operating temp. : Including temperature-rise on unit surface.

* Refer to each product page for details.

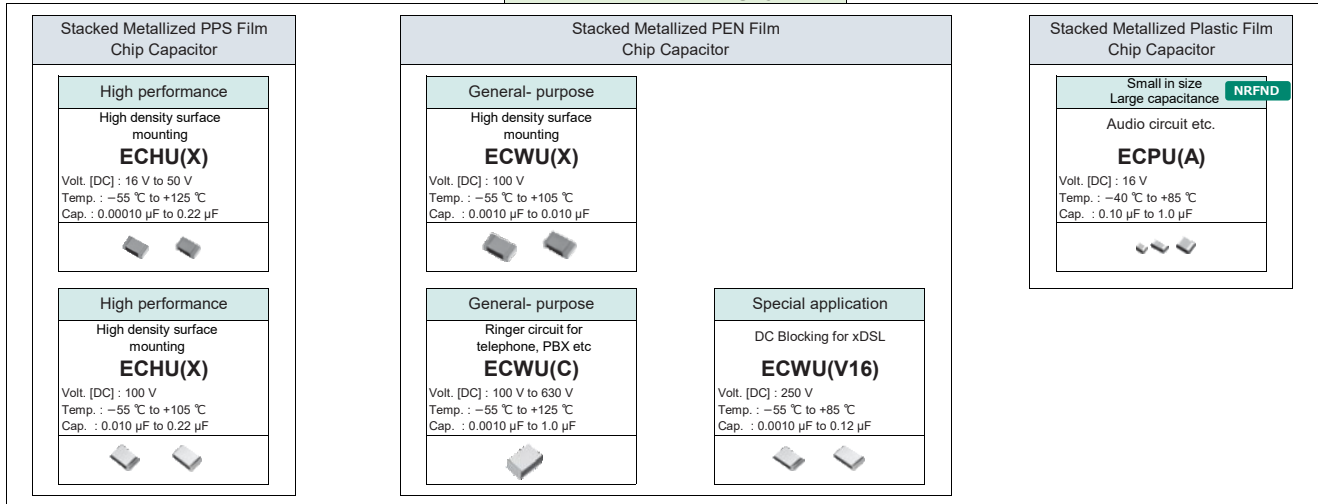
★Some part number have been designated Not Recommended for New Design.

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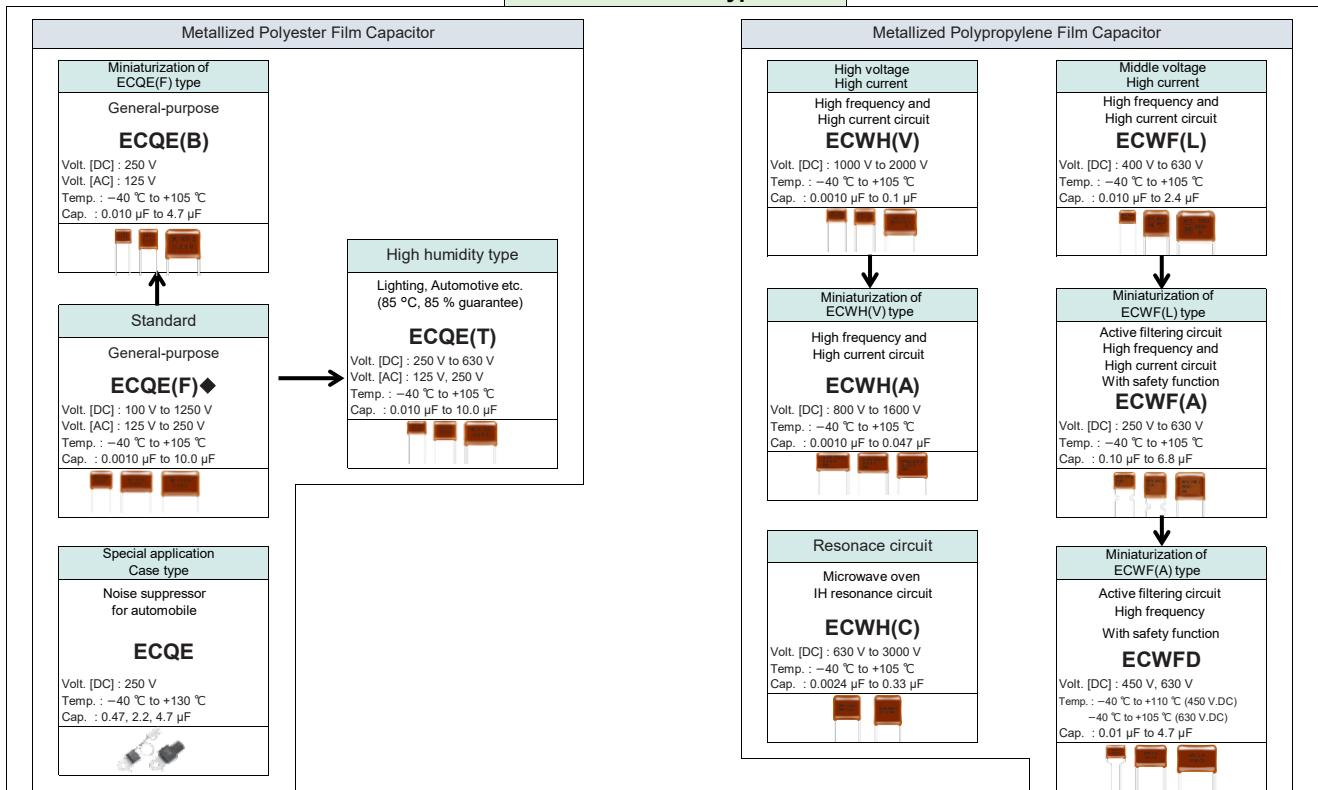
Not recommended for new design

Series flow chart

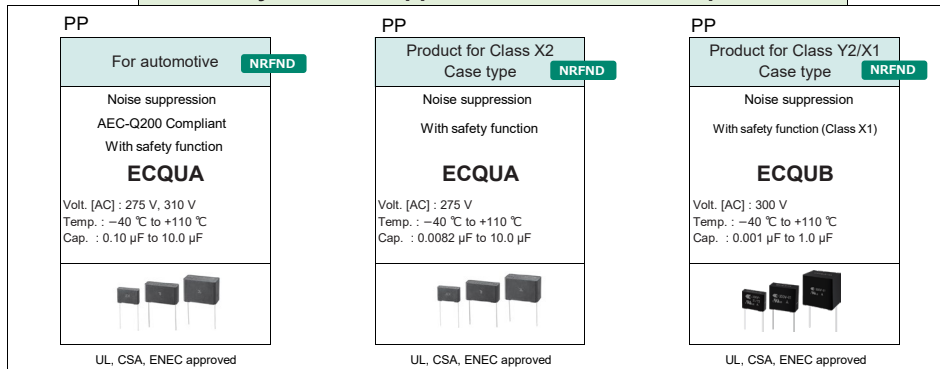
Surface mounting type



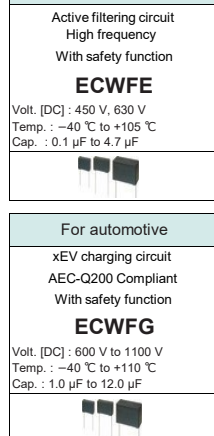
Radial lead type



Safety Standard Approval Metallized Film Capacitor



Case of ECWFD-ECWF(A) type



◆Some part number have been designated discontinued.

NRFND Not recommended for new design