



















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	NRFND 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
		NRFND 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)
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.




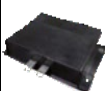




NRFND Not recommended for new design

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.

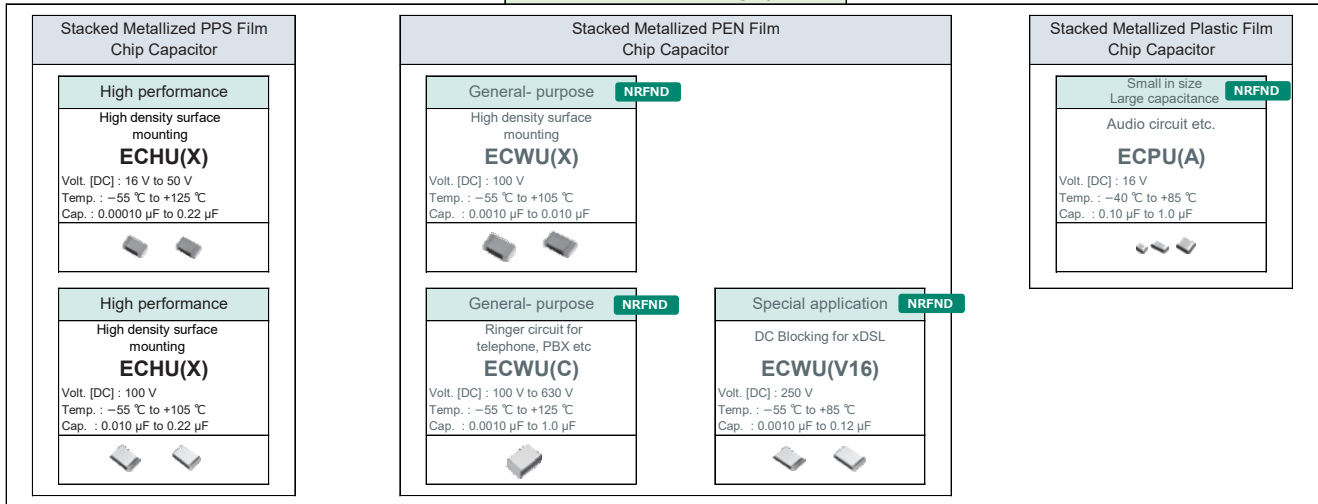
★Some part number have been designated Not Recommended for New Design.

NRFND

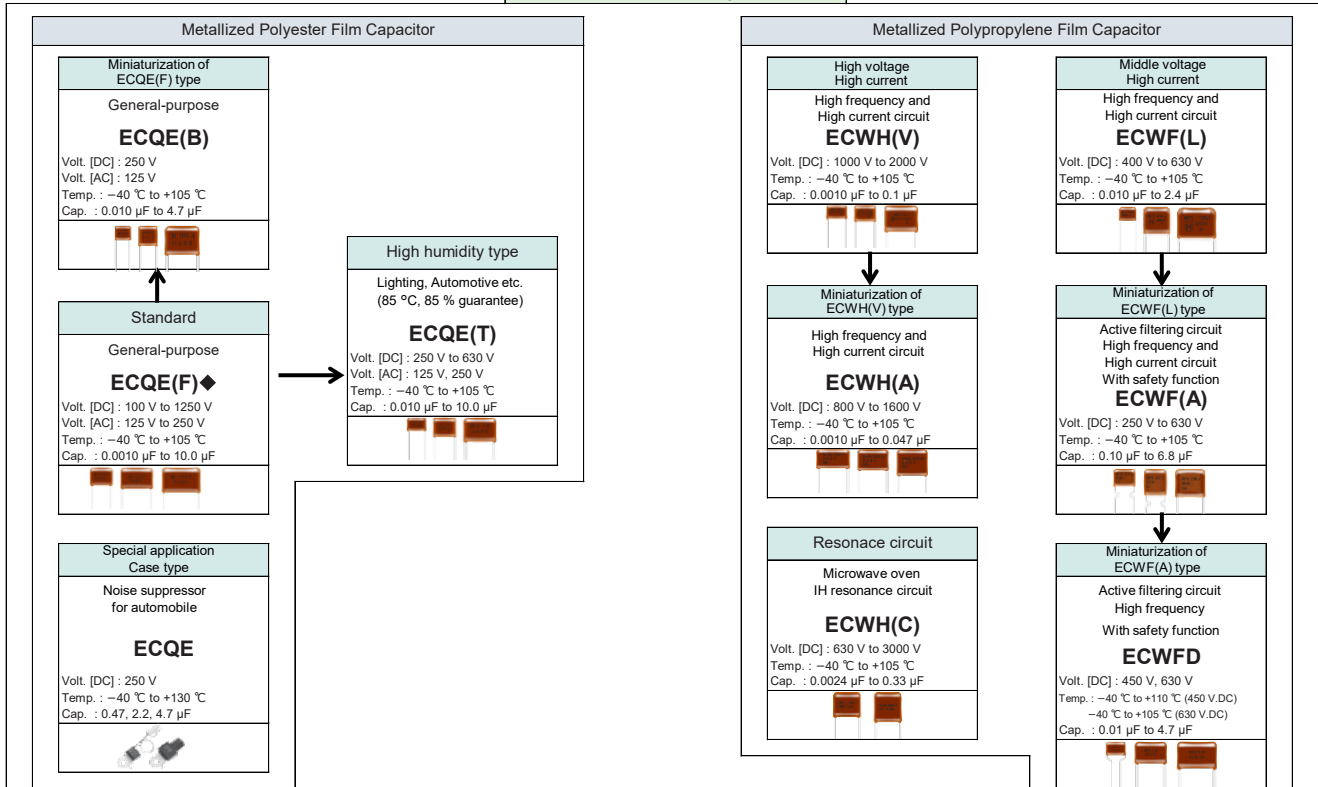
Not recommended for new design

Series flow chart

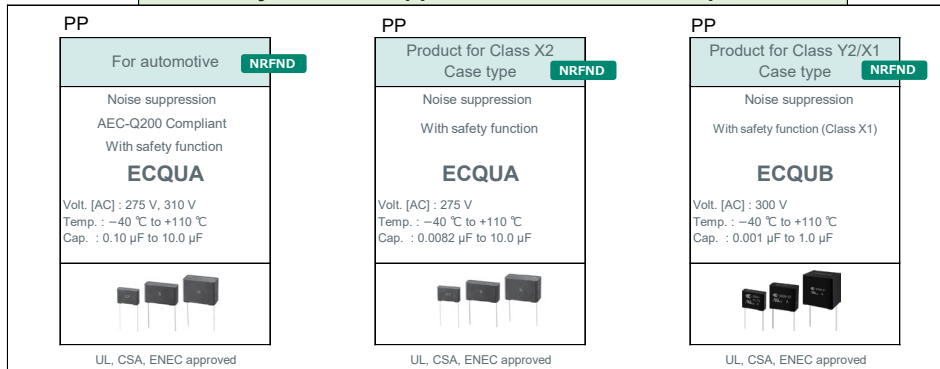
Surface mounting type



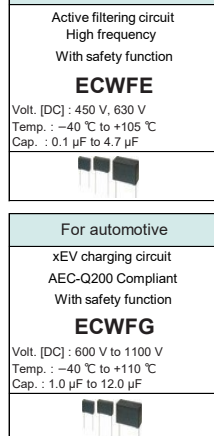
Radial lead type



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