Metallized Polypropylene Film Capacitors

Type:**ECWH(A)**

Designed for high frequency and current applications.

■Features

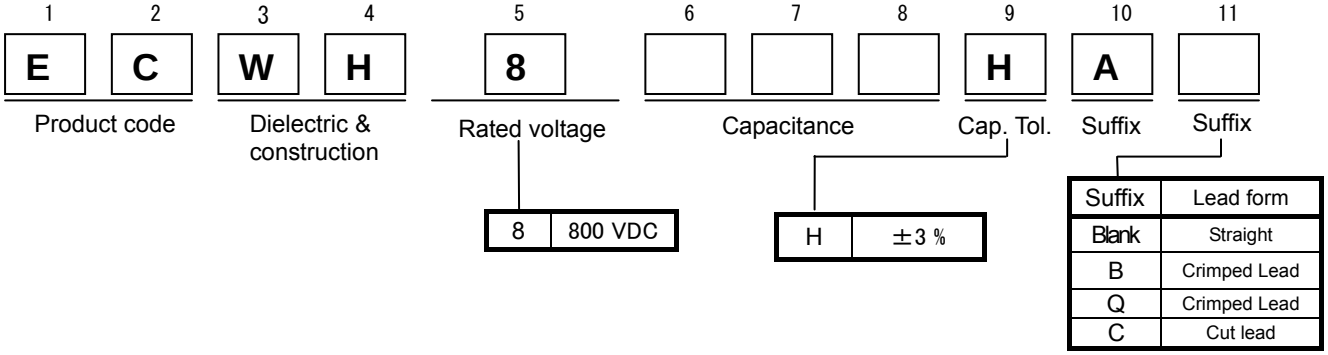
- ●Small size
- ●Excellent frequency characteristics
- ●Low loss
- ●Low Hum Sound Noise
- ●RoHS directive compliant

■Recommended Applications

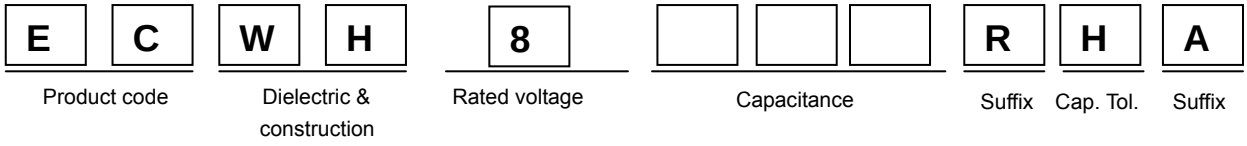
- ●Resonance circuit for power supply

■ Explanation of Part Numbers

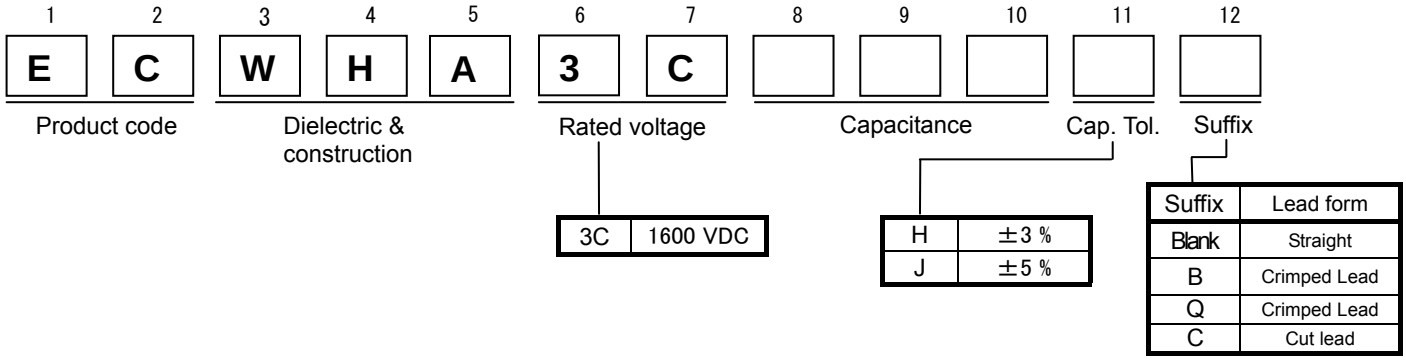
●Explanation of Part Numbers (Rated voltage 800 VDC)



● Explanation of Part Numbers for Odd Size Taping (Rated voltage 800 VDC)



●Explanation of Part Numbers (Rated voltage 1600 VDC)

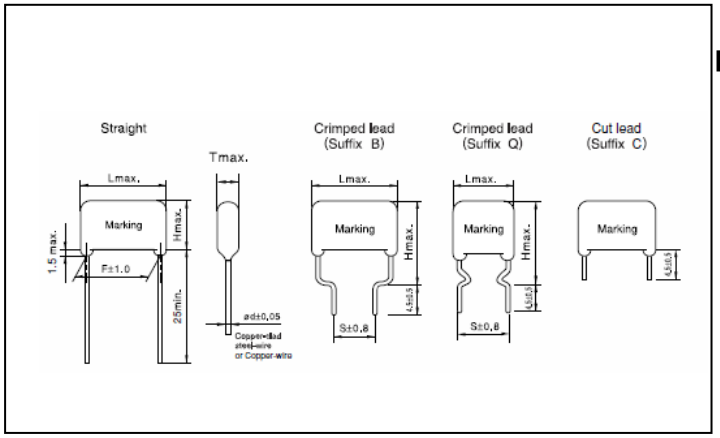


■Specifications

Category temp. range (Including temperature-rise on unit surface)	−40 ℃ to +105 ℃	
Rated voltage	800 VDC	1600 VDC
Capacitance range	0.01 uF to 0.047 uF	0.0010 to 0.047 uF
Capacitance tolerance	±3% (H)	±3% (H), ±5% (J)
Withstand voltage	Between terminals : Rated voltage(VDC) × 150 % 60 s	
Dissipation factor (tan δ)	tan δ ≦0.1 % (20 ℃,1 kHz)	
Insulation resistance (IR)	IR≧30000 MΩ (20 ℃, 500 VDC, 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 in mm (not to scale)

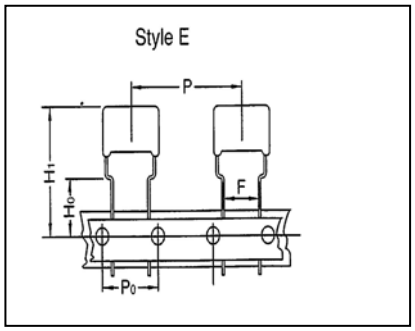


■ Packaing Specifications for Bulk Package

Packing quantity: 100 pcs./bag

■ Taping Specifications for Automatic Insertion

● **Taping style**



※Refer to the page of taping specifications.

●Packaging Specifications

Type	Rated voltage	Cap. Range (uF)	Taping Style						Packing	Suffix
			AD	AS	B	C	D	E		
ECWH(A)	800 VDC	0.010 to 0.047						○	Ammo	RHA
ECWHA	1600 VDC	0.0010 to 0.047						○	Ammo	( )4

●Lead Spacing

Style	Lead spacing
E	7.5 mm

■Rating, Dimension & Quantity / Ammo Box

●Rated voltage : 800 VDC, Capacitance tolerance : ±3 % (H)

Part No.	Capacitance (μF)	Dimensions (mm)									Min. order Q'ty
		L^{max}	T^{max}	H^{max}			F	S		Φd	Ammo 7.5mm
				Straight	Crimped lead (Suffix B)	Crimped lead (Suffix Q)	Straight	Crimped lead (Suffix B)	Crimped lead (Suffix Q)		
ECWH8103HA( )	0.010	15.4	5.4	9.8	14.8	14.8	12.5	7.5	12.5	0.6	
ECWH8123HA( )	0.012	15.4	5.8	10.2	15.2	15.2	12.5	7.5	12.5	0.6	
ECWH8153HA( )	0.015	15.4	6.2	10.6	15.6	15.6	12.5	7.5	12.5	0.6	500
ECWH8183HA( )	0.018	15.7	6.6	11.0	16.0	18.0	12.5	7.5	12.5	0.8	
ECWH8223HA( )	0.022	15.7	7.1	11.5	16.5	18.5	12.5	7.5	12.5	0.8	400
ECWH8273HA( )	0.027	15.7	7.6	12.0	17.0	19.0	12.5	7.5	12.5	0.8	
ECWH8333HA( )	0.033	15.7	8.4	12.8	17.8	19.8	12.5	7.5	12.5	0.8	
ECWH8393HA( )	0.039	15.7	8.9	13.3	18.3	20.3	12.5	7.5	12.5	0.8	300
ECWH8473HA( )	0.047	15.7	9.7	14.1	19.1	21.1	12.5	7.5	12.5	0.8	

Suffix for lead crimped

Capacitance tolerance code

■Rating, Dimension & Quantity / Ammo Box

●Rated voltage：1600 VDC, Capacitance tolerance：±3 % (H), ±5 % (J)

Part No.	Capacitance (μF)	Dimensions (mm)									Min. order Q'ty
		L^{max}	T^{max}	H^{max}			F	S		Φd	Ammo 7.5mm
				Straight	Crimped lead (Suffix B)	Crimped lead (Suffix Q)		Crimped lead (Suffix B)	Crimped lead (Suffix Q)		
ECWHA3C102( )( )	0.0010	17.8	5.2	--	13.0	13.0	--	10.0	15.0	0.6	600
ECWHA3C112( )( )	0.0011	17.8	5.4	--	13.1	13.1	--	10.0	15.0	0.6	
ECWHA3C122( )( )	0.0012	17.8	5.5	--	13.2	13.2	--	10.0	15.0	0.6	500
ECWHA3C132( )( )	0.0013	17.8	5.7	--	13.4	13.4	--	10.0	15.0	0.6	
ECWHA3C152( )( )	0.0015	17.8	5.9	--	13.7	13.7	--	10.0	15.0	0.6	
ECWHA3C162( )( )	0.0016	17.8	6.1	--	13.9	13.9	--	10.0	15.0	0.6	
ECWHA3C182( )( )	0.0018	17.8	6.4	--	14.1	14.1	--	10.0	15.0	0.6	
ECWHA3C202( )( )	0.0020	17.8	6.6	--	14.3	14.3	--	10.0	15.0	0.6	400
ECWHA3C222( )( )	0.0022	17.8	6.7	--	14.5	14.5	--	10.0	15.0	0.6	
ECWHA3C242( )( )	0.0024	17.8	7.0	--	14.7	14.7	--	10.0	15.0	0.6	
ECWHA3C272( )( )	0.0027	17.8	5.2	--	13.0	13.0	--	10.0	15.0	0.6	600
ECWHA3C302( )( )	0.0030	17.8	5.5	--	13.2	13.2	--	10.0	15.0	0.6	500
ECWHA3C332( )( )	0.0033	17.8	5.6	--	13.4	13.4	--	10.0	15.0	0.6	
ECWHA3C362( )( )	0.0036	17.8	5.7	--	13.5	13.5	--	10.0	15.0	0.6	
ECWHA3C392( )( )	0.0039	17.8	6.0	--	13.8	13.8	--	10.0	15.0	0.6	
ECWHA3C432( )( )	0.0043	17.8	6.2	--	13.9	13.9	--	10.0	15.0	0.6	
ECWHA3C472( )( )	0.0047	17.8	6.4	9.1	14.1	14.1	15.0	10.0	15.0	0.6	
ECWHA3C512( )( )	0.0051	17.8	6.6	9.4	14.4	14.4	15.0	10.0	15.0	0.6	400
ECWHA3C562( )( )	0.0056	17.8	6.8	9.6	14.6	14.6	15.0	10.0	15.0	0.6	
ECWHA3C622( )( )	0.0062	17.8	7.1	9.8	14.8	14.8	15.0	10.0	15.0	0.6	
ECWHA3C682( )( )	0.0068	17.8	6.1	12.1	17.1	17.1	15.0	10.0	15.0	0.6	500
ECWHA3C752( )( )	0.0075	17.8	6.5	12.4	17.4	17.4	15.0	10.0	15.0	0.6	400
ECWHA3C822( )( )	0.0082	17.8	6.8	12.7	17.7	17.7	15.0	10.0	15.0	0.6	
ECWHA3C912( )( )	0.0091	17.8	7.1	13.0	18.0	18.0	15.0	10.0	15.0	0.6	
ECWHA3C103( )( )	0.010	20.3	6.4	12.3	17.3	17.3	17.5	10.0	17.5	0.6	500
ECWHA3C113( )( )	0.011	20.3	6.6	12.5	17.5	17.5	17.5	10.0	17.5	0.6	400
ECWHA3C123( )( )	0.012	20.3	6.8	12.8	17.8	17.8	17.5	10.0	17.5	0.6	
ECWHA3C133( )( )	0.013	20.3	7.1	13.0	18.0	18.0	17.5	10.0	17.5	0.6	
ECWHA3C153( )( )	0.015	20.3	7.6	13.5	18.5	18.5	17.5	10.0	17.5	0.6	
ECWHA3C163( )( )	0.016	20.3	7.9	13.8	18.8	18.8	17.5	10.0	17.5	0.6	
ECWHA3C183( )( )	0.018	20.6	8.2	14.1	19.1	21.1	17.5	10.0	17.5	0.8	300
ECWHA3C203( )( )	0.020	20.6	8.7	14.6	19.6	21.6	17.5	10.0	17.5	0.8	
ECWHA3C223( )( )	0.022	20.6	9.1	15.0	20.0	22.0	17.5	10.0	17.5	0.8	
ECWHA3C243( )( )	0.024	20.6	9.6	15.4	20.4	22.4	17.5	10.0	17.5	0.8	
ECWHA3C273( )( )	0.027	20.6	10.0	15.9	20.9	22.9	17.5	10.0	17.5	0.8	
ECWHA3C303( )( )	0.030	20.6	10.7	16.5	21.5	23.5	17.5	10.0	17.5	0.8	200
ECWHA3C333( )( )	0.033	20.6	11.2	17.0	22.0	24.0	17.5	10.0	17.5	0.8	
ECWHA3C363( )( )	0.036	20.6	11.7	17.5	22.5	24.5	17.5	10.0	17.5	0.8	
ECWHA3C393( )( )	0.039	20.6	12.1	18.0	23.0	25.0	17.5	10.0	17.5	0.8	
ECWHA3C433( )( )	0.043	20.6	12.8	18.6	23.6	25.6	17.5	10.0	17.5	0.8	
ECWHA3C473( )( )	0.047	20.6	13.4	19.2	24.2	26.2	17.5	10.0	17.5	0.8	

Suffix for lead crimped

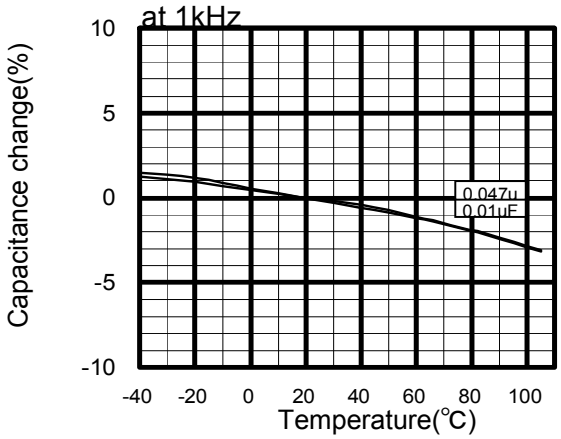
Capacitance tolerance code

Panasonic

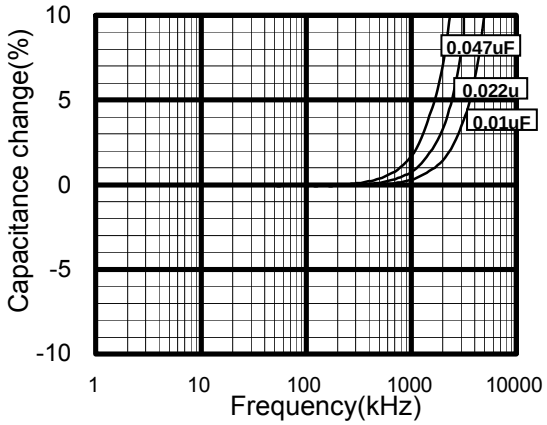
ECWH (A) Type DC800V series (Metallized Polypropylene Film)

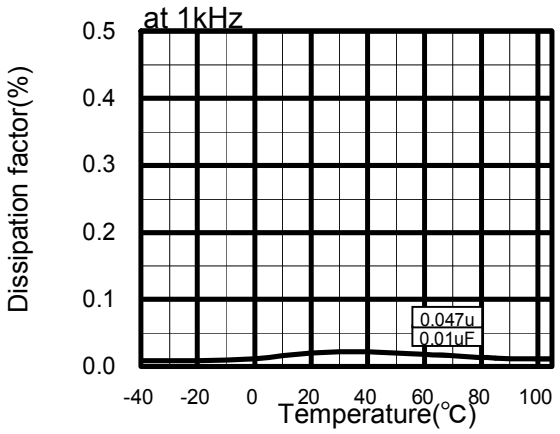
Electrical Characteristics <Typical Data >

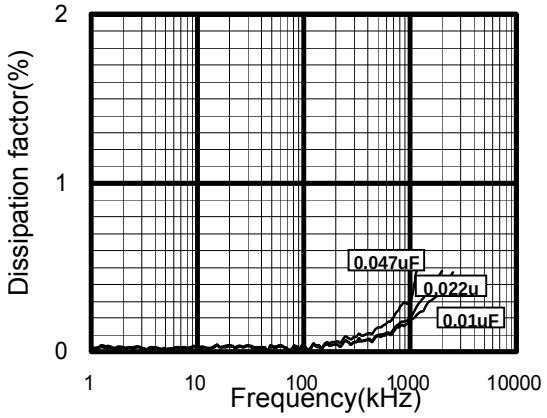
Temperature Characteristics

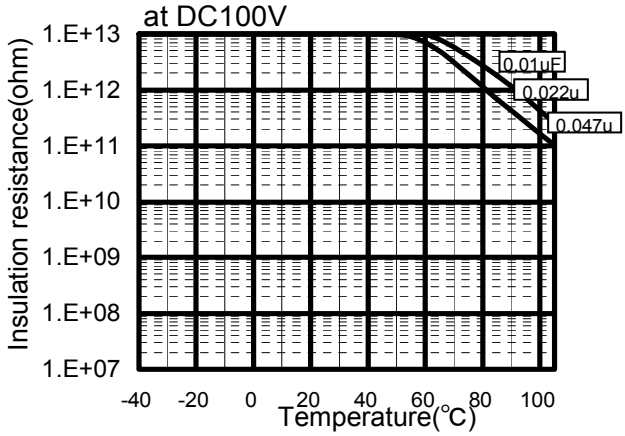


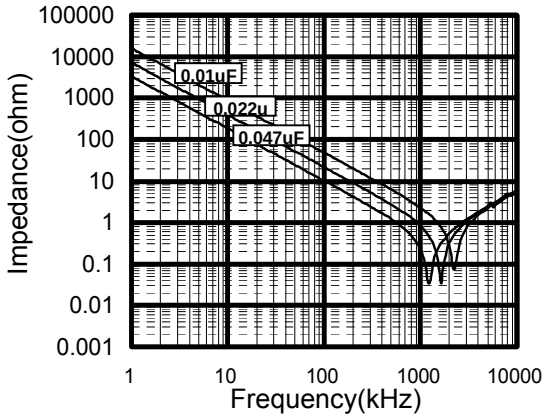
Frequency Characteristics









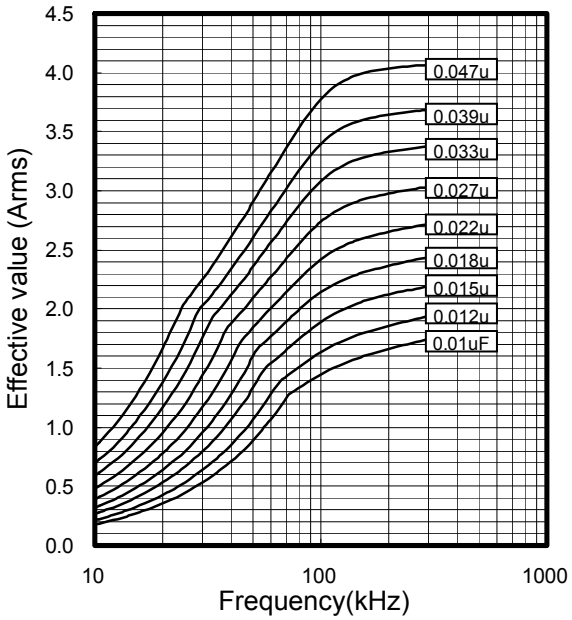


Panasonic

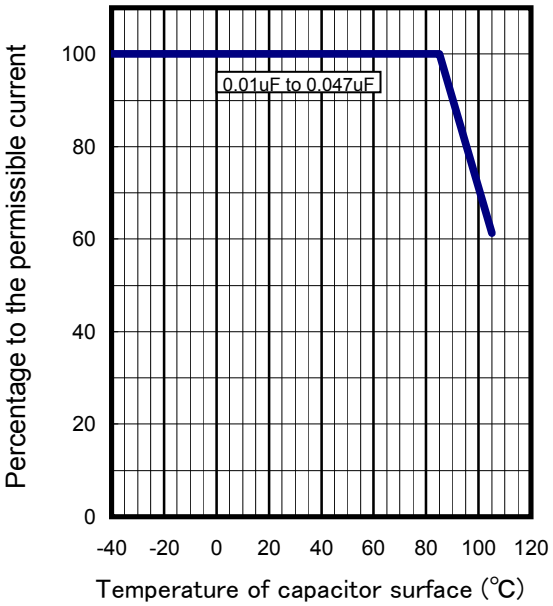
ECWH (A) Type DC800V series (Metallized Polypropylene Film)

Applicable Specifications

Permissible Current



Permissible Current Derating by Temperature

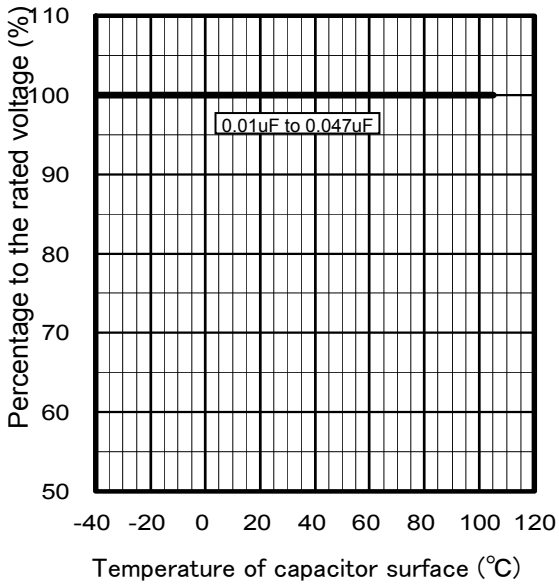


Pulse Handling Capability (dv/dt)

(Max 10000cycles)

Rated Voltage	Capacitance (μF)	Code	dV/dt (V/μs)	Current (A0-P)
DC 800V	0.010	103	500	5.0
	0.012	123		6.0
	0.015	153		7.5
	0.018	183		9.0
	0.022	223	1000	22.0
	0.027	273		27.0
	0.033	333		33.0
	0.039	393		39.0
	0.047	473		47.0

Voltage Derating by Temperature



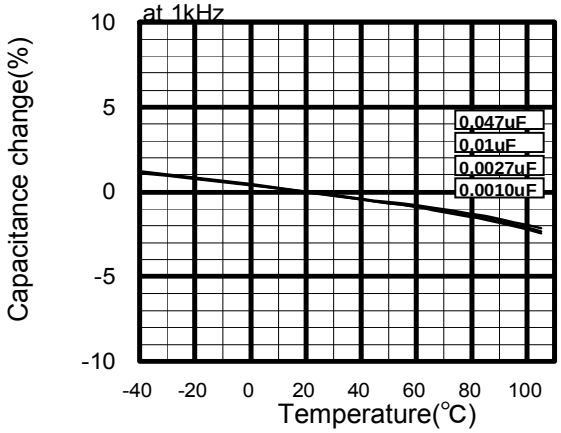
*Please consult Panasonic if your condition exceeds the above
*P When you use this product, peak voltage must not exceed DC rated voltage.
*The current(0-P) value is calculated using nominal capacitance.

Panasonic

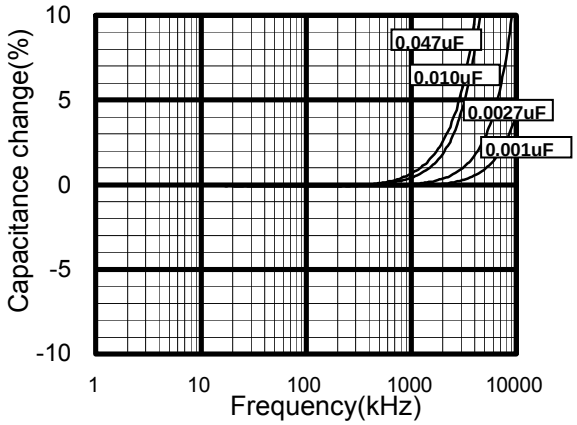
ECWHA Type DC1600V series (Metallized Polypropylene Film)

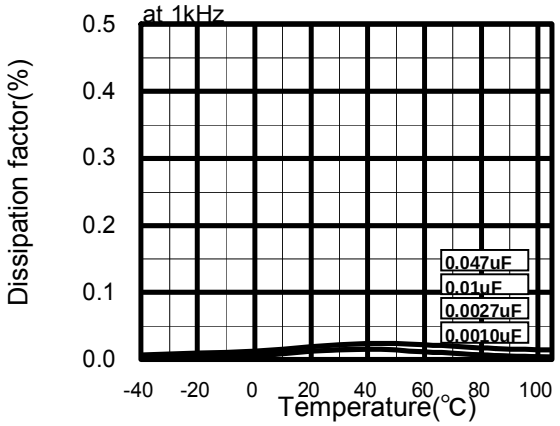
Electrical Characteristics <Typical Data >

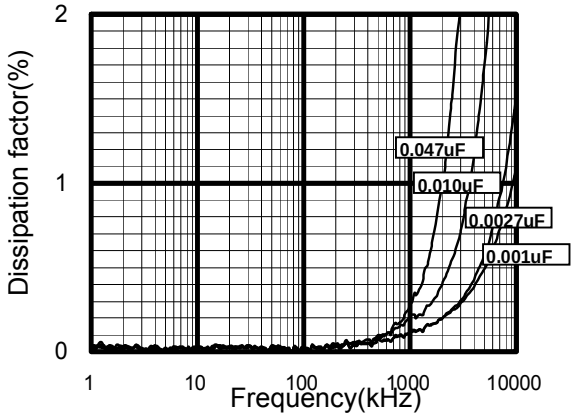
Temperature Characteristics

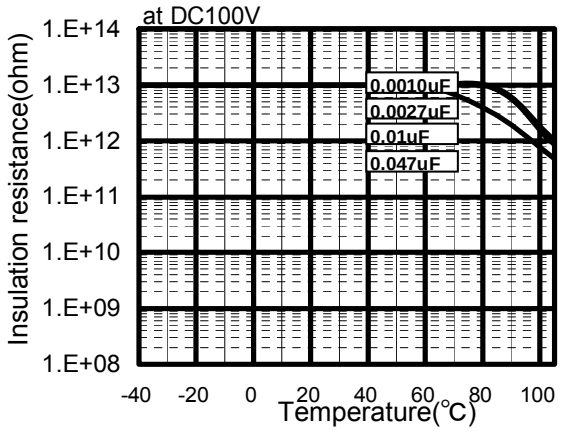


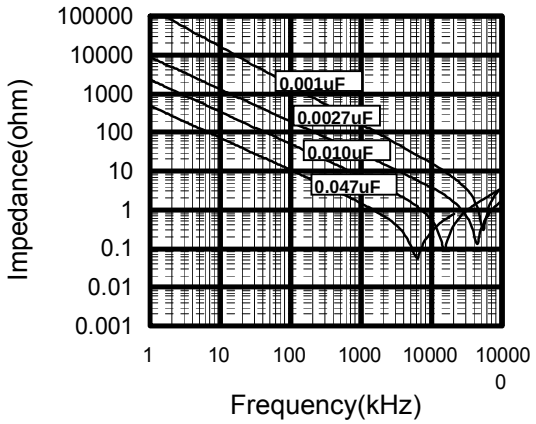
Frequency Characteristics









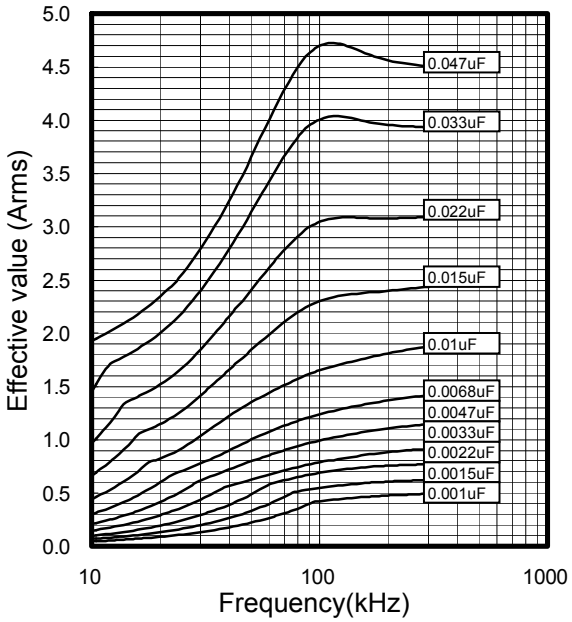


Panasonic

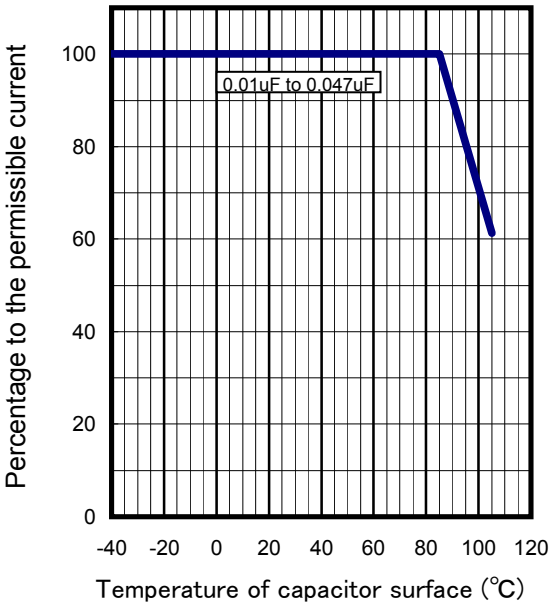
ECWHA Type DC1600V series (Metallized Polypropylene Film)

Applicable Specifications

Permissible Current



Permissible Current Derating by Temperature

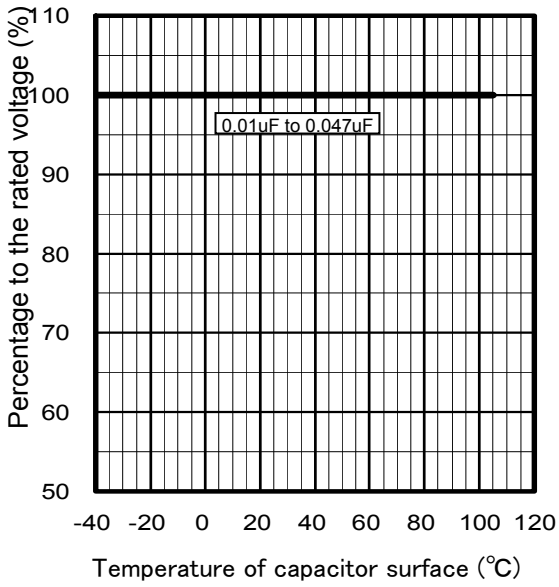


Pulse Handling Capability (dv/dt)

(Max 10000cycles)

Rated Voltage	Capacitance (μF)	Code	dV/dt (V/μs)	Current (A0-P)
DC 1600V	0.0010	102	2000	2.0
	0.0015	152		3.0
	0.0022	222		4.4
	0.0033	332		6.6
	0.0047	472		9.4
	0.0068	682		13.6
	0.0100	103		20.0
	0.0150	153		30.0
	0.0220	223		44.0
	0.0330	333		66.0
	0.0470	473		94.0

Voltage Derating by Temperature



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*P When you use this product, peak voltage must not exceed DC rated voltage.
*The current(0-P) value is calculated using nominal capacitance.