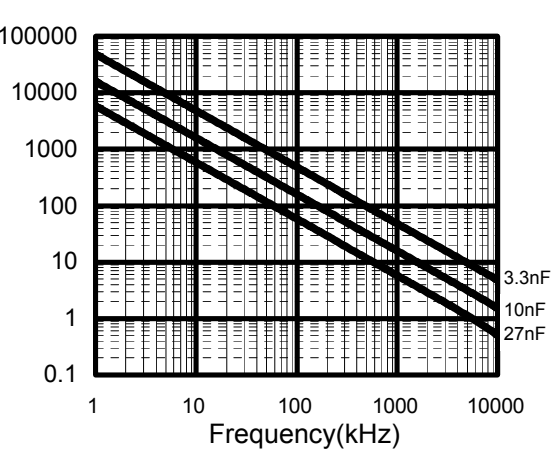
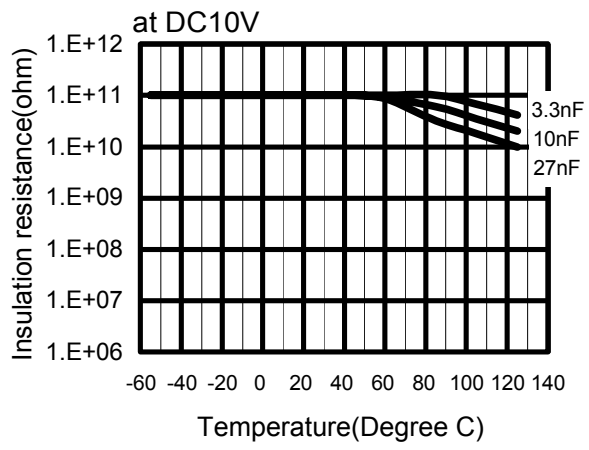
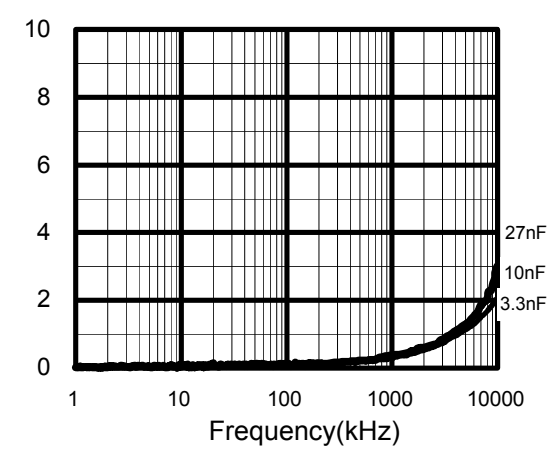
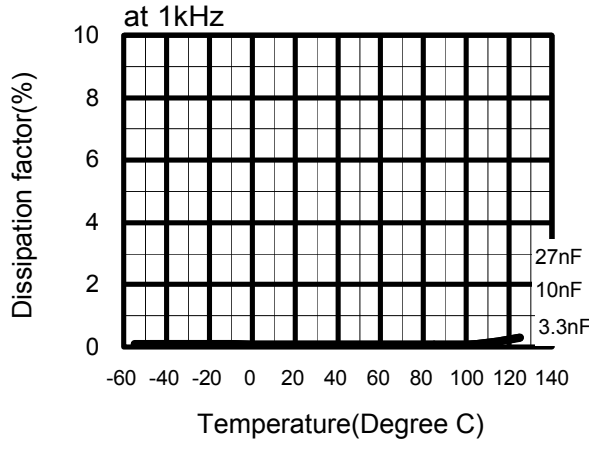
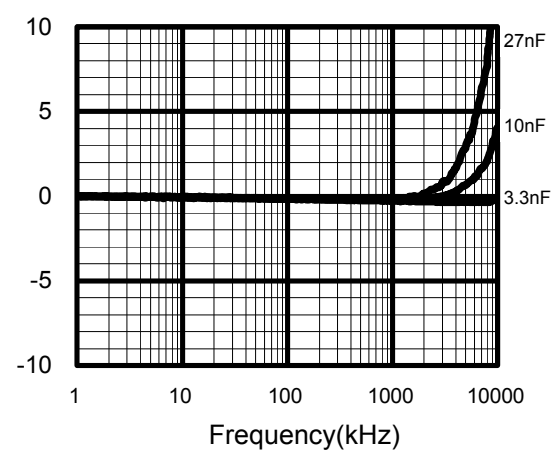
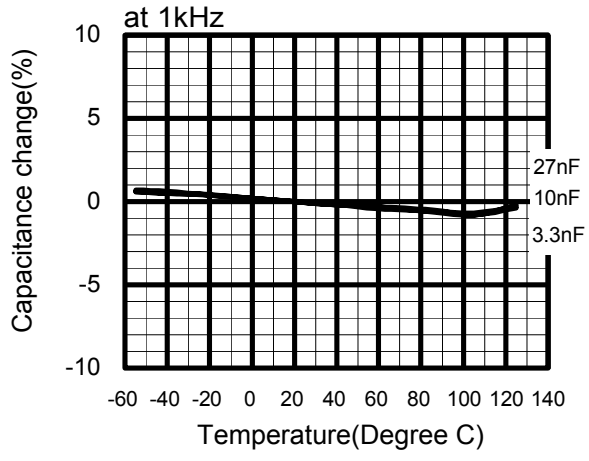


**ECHU (X) Type DC10V series (Stacked Metallized Film)**  
**Electrical Characteristics <Typical Data >**

**Temperature Characteristics**

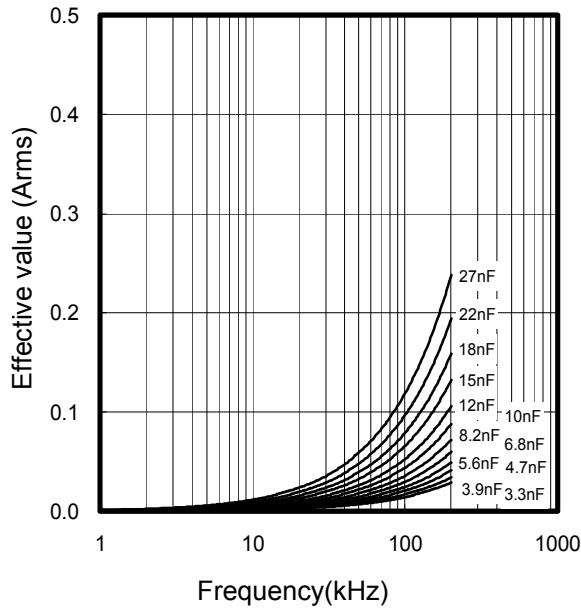
**Frequency Characteristics**



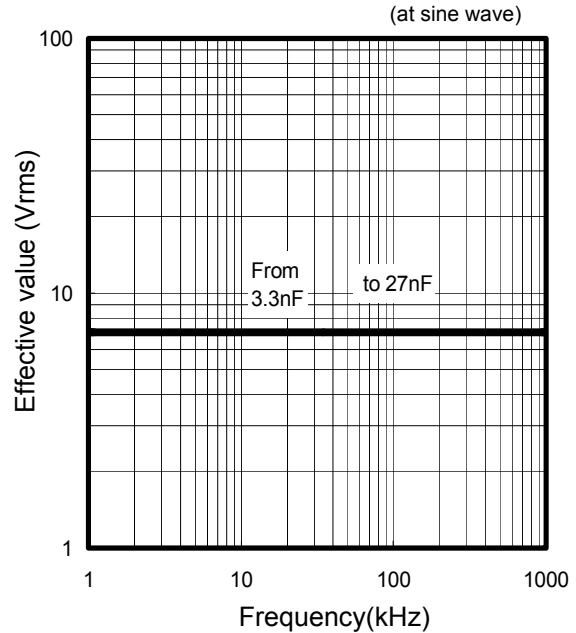
**ECHU (X) Type DC10V series (Stacked Metallized Film)**

**Applicable Specifications**

**Permissible Current**



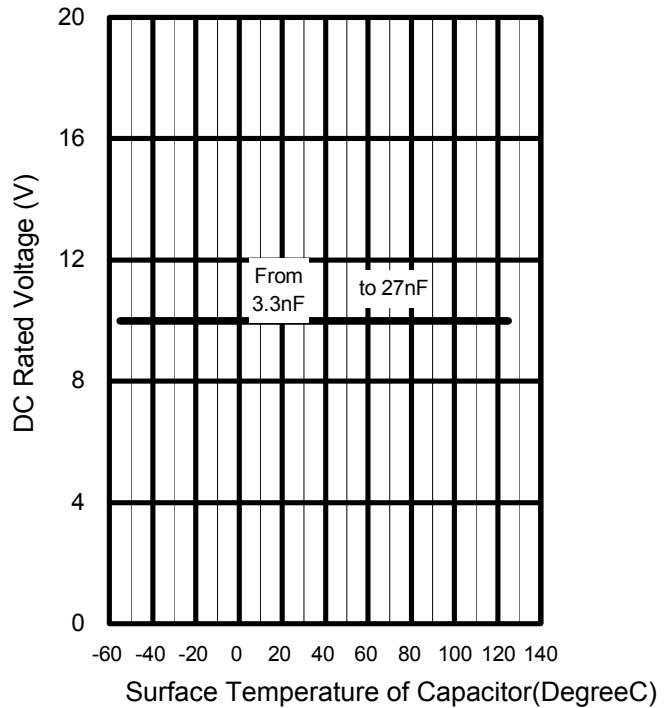
**Permissible Voltage**



**Pulse Handling Capability (dv/dt)**  
(Max 10000cycles)

Rating Voltage	Capacitance Value(uF)	code	dV/dt (V/us)	Current(0-P) (A)
DC 10V	0.0033	332	47	0.16
	0.0039	392	44	0.17
	0.0047	472	40	0.19
	0.0056	562	37	0.21
	0.0068	682	34	0.23
	0.0082	822	31	0.25
	0.01	103	28	0.28
	0.012	123	26	0.31
	0.015	153	24	0.36
	0.018	183	22	0.40
	0.022	223	20	0.44
0.027	273	18	0.49	

**Voltage Derating by Temperature**



\* Please consult Panasonic if your condition exceeds the above

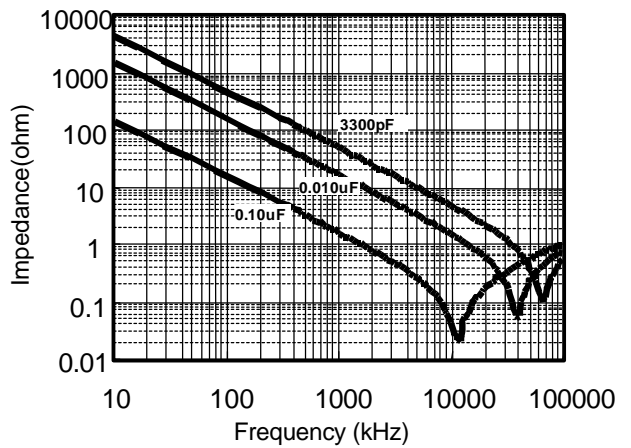
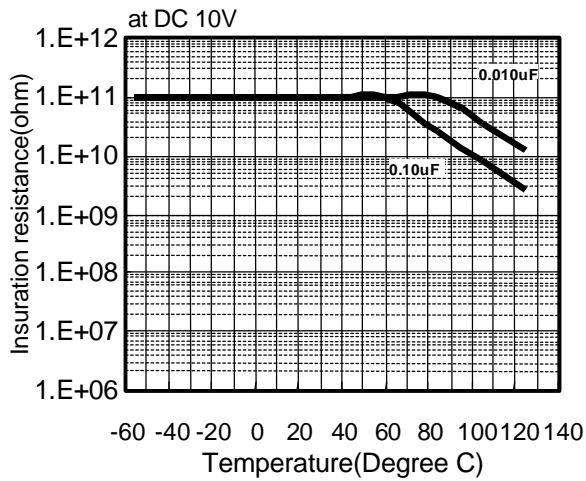
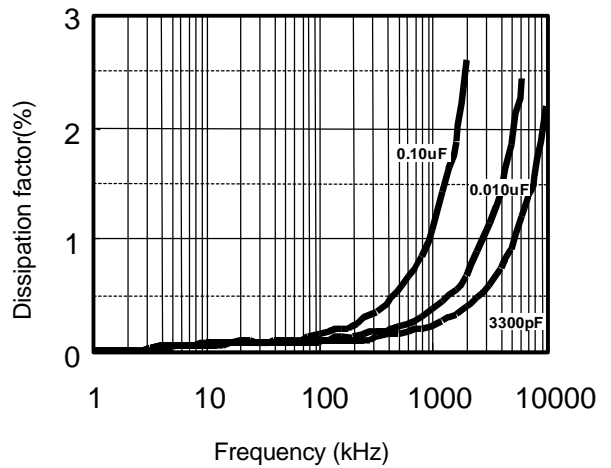
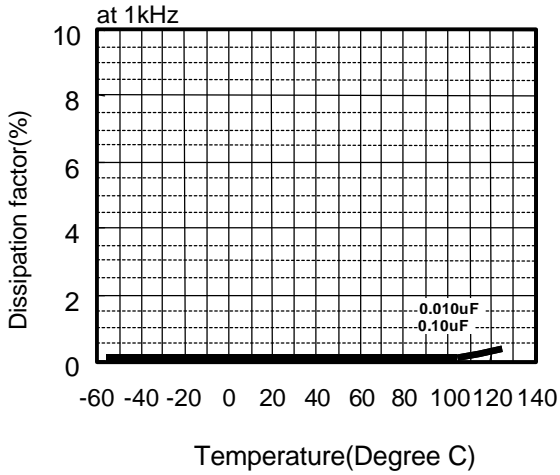
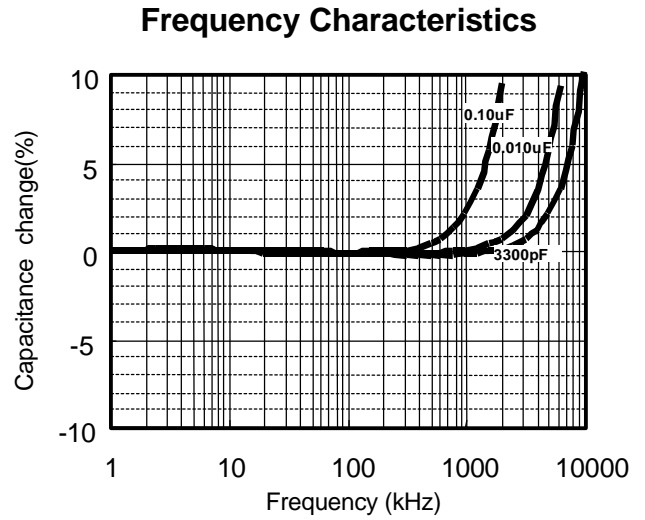
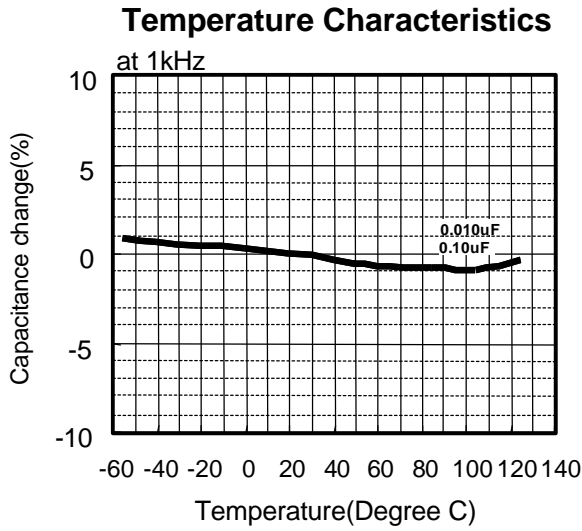
\*Permissible voltage graph is the case of sine waveform. When you use this product, peak voltage must not exceed DC rated voltage.

\*The current(0-P) value is calculated using nominal capacitance.



# ECHU (X) Type DC16V series (Stacked Metallized Film)

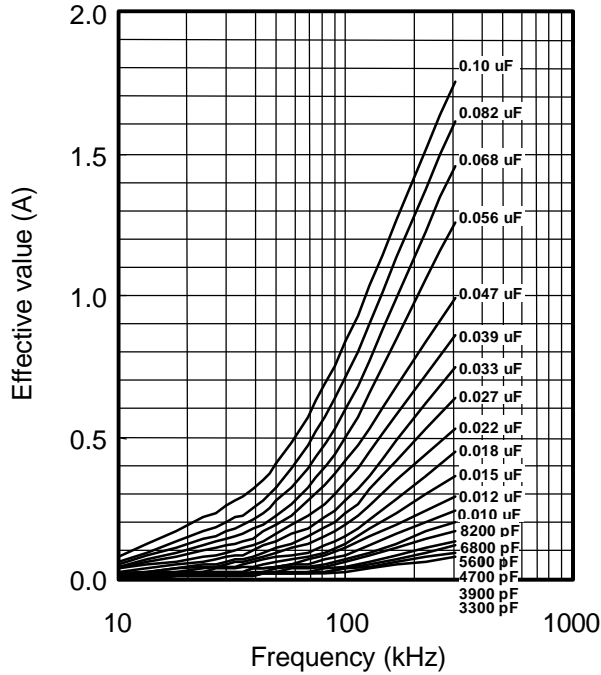
## Electrical Characteristics < Typical Data >



**ECHU (X) Type DC16V series (Stacked Metallized Film)**

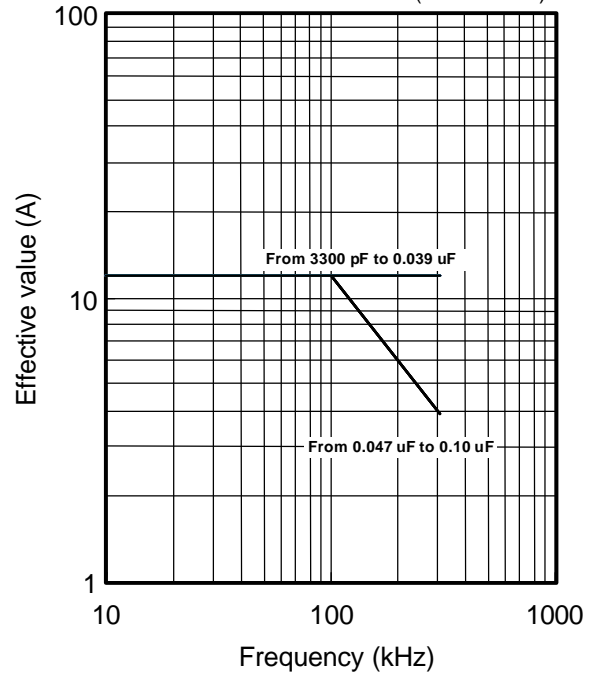
**Applicable Specifications**

**Permissible Current**



**Permissible Voltage**

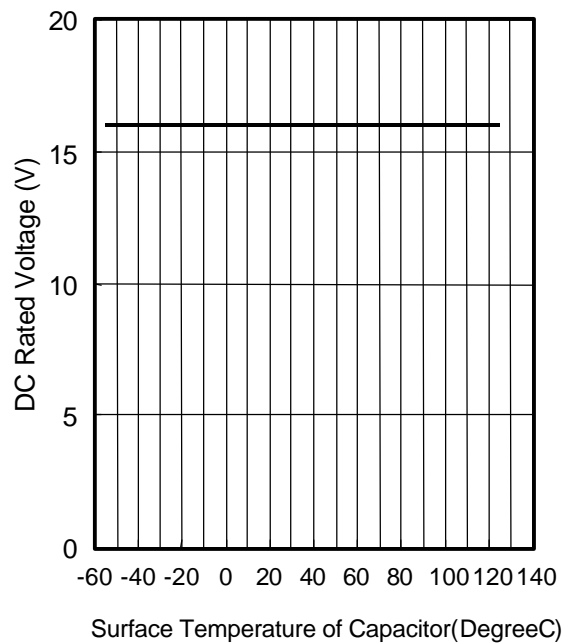
(at sine wave)



**Pulse Handling Capability (dv/dt)  
(Max 10000cycles)**

Rating Voltage	Capacitance Value(uF)	Code	dv/dt(V/us)	Current(I <sub>o-p</sub> ) (A)
DC 16V	0.0033	332	86	0.28
	0.0039	392	80	0.31
	0.0047	472	74	0.35
	0.0056	562	68	0.38
	0.0068	682	62	0.42
	0.0082	822	58	0.48
	0.010	103	52	0.52
	0.012	123	48	0.58
	0.015	153	43	0.65
	0.018	183	40	0.72
	0.022	223	37	0.81
	0.027	273	33	0.89
	0.033	333	31	1.02
	0.039	393	28	1.09
	0.047	473	26	1.22
	0.056	563	24	1.34
0.068	683	22	1.50	
0.082	823	20	1.64	
0.10	104	19	1.90	

**Voltage Derating by Temperature**



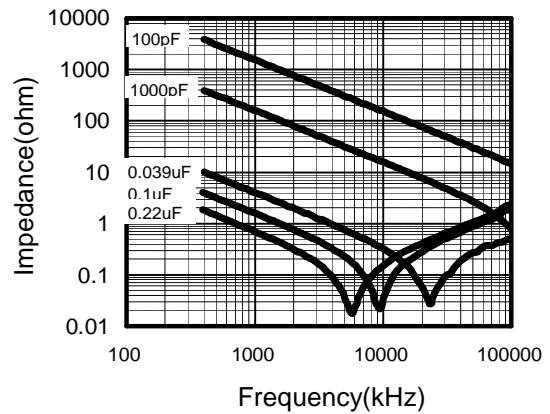
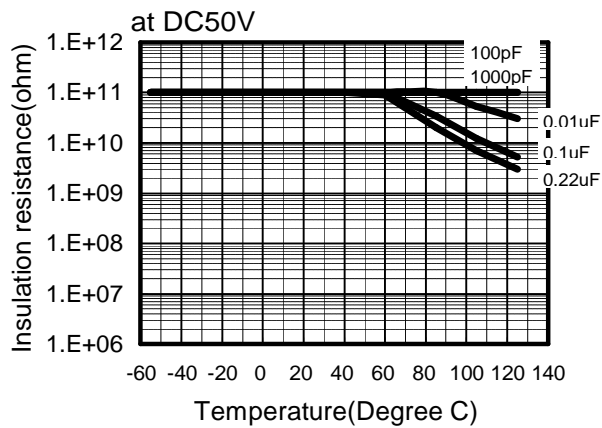
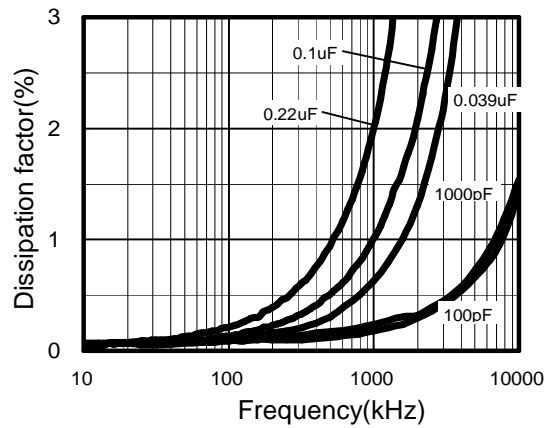
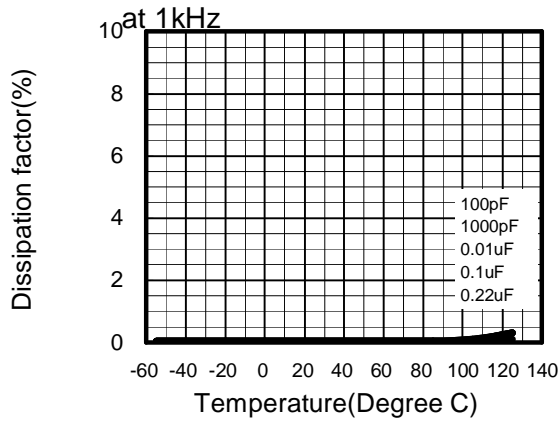
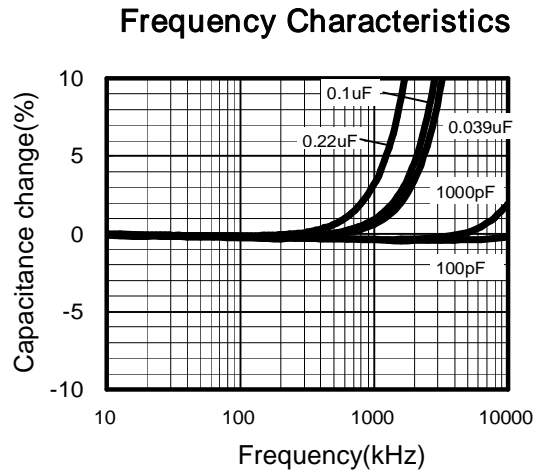
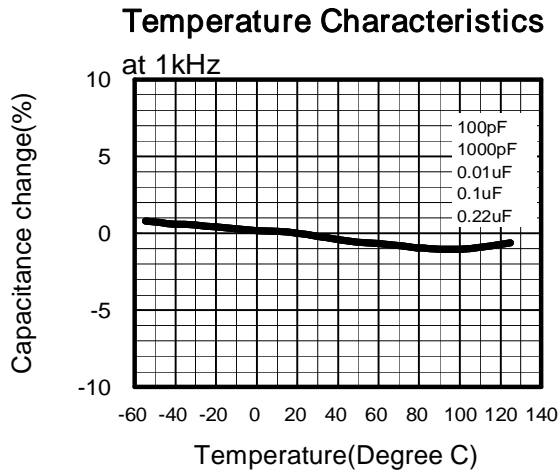
\* Please consult Panasonic if your condition exceeds the above spec.

\*Permissible voltage graph is the case of sine waveform. When you use this product, peak voltage must not exceed DC rated voltage.

\*The current(I<sub>o-p</sub>) value is calculated using nominal capacitance.

**ECHU (X) Type DC50V series (Stacked Metallized Film)**

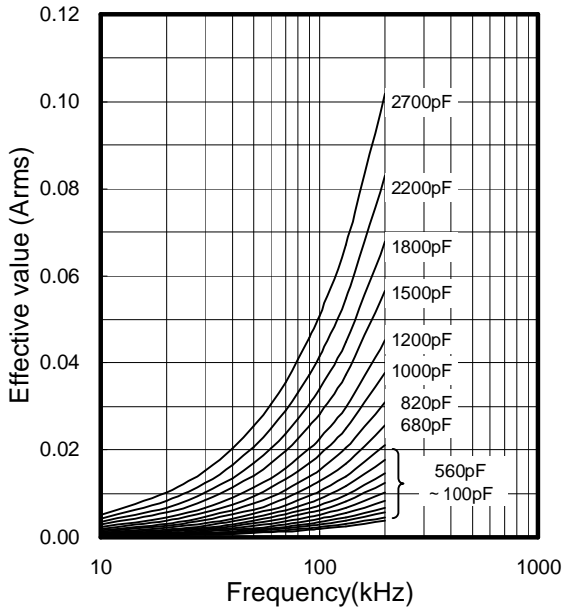
**Electrical Characteristics <Typical Data >**



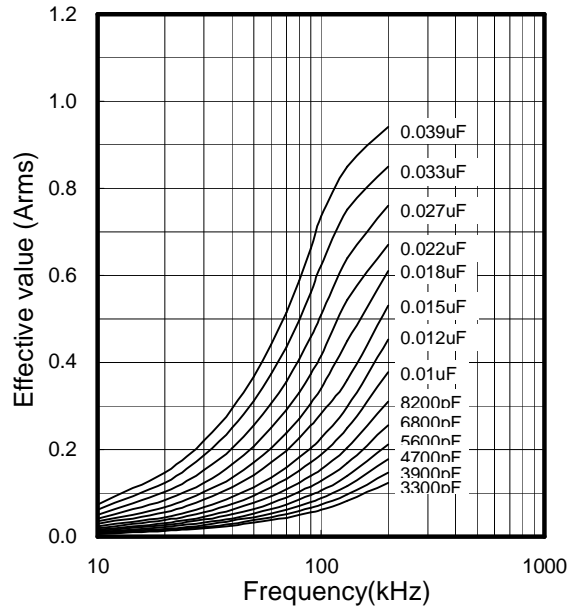
**ECHU (X) Type DC50V series (Stacked Metallized Film)**

**Applicable Specifications**

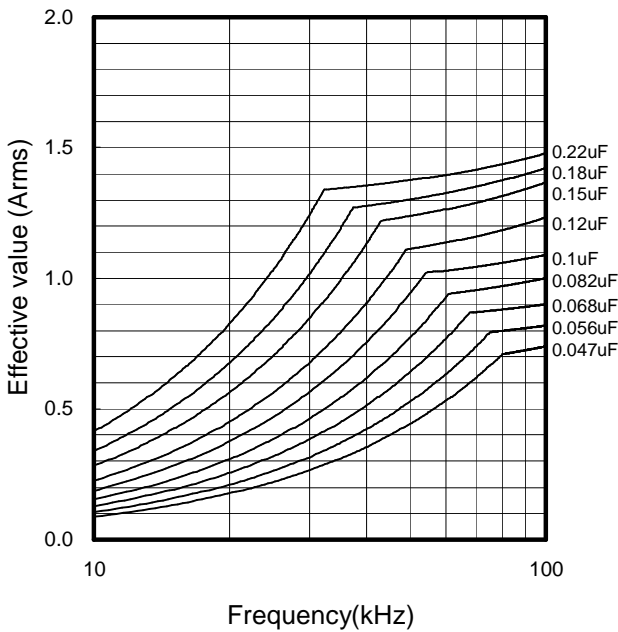
**Permissible Current**



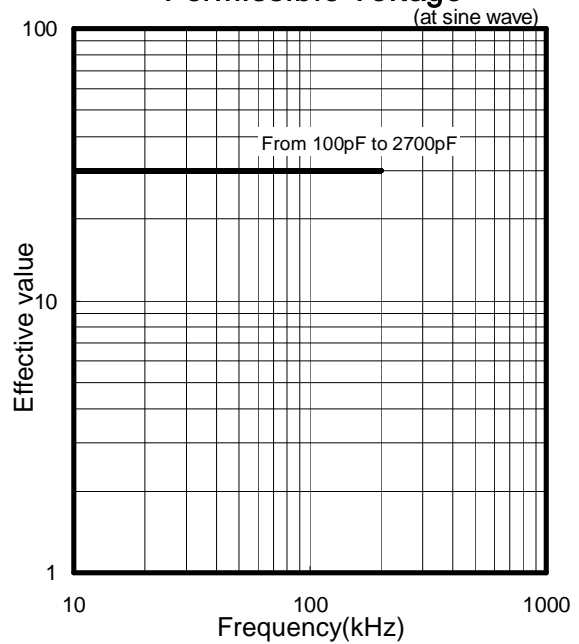
**Permissible Current**



**Permissible Current**



**Permissible Voltage**



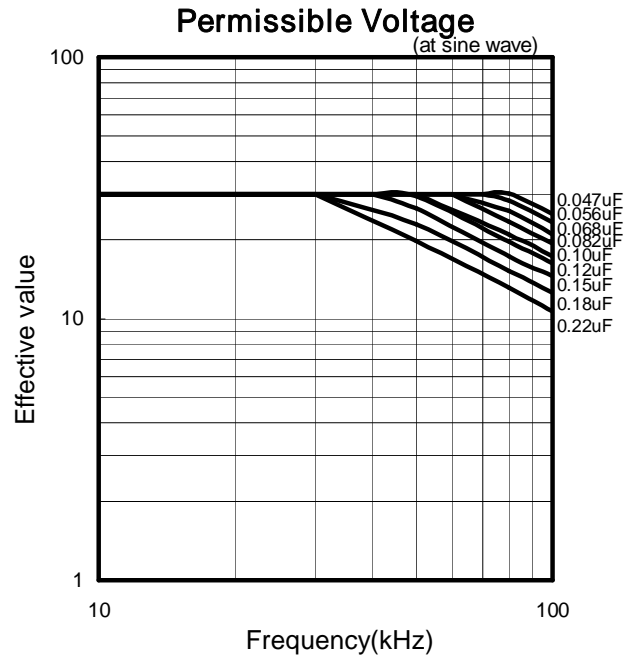
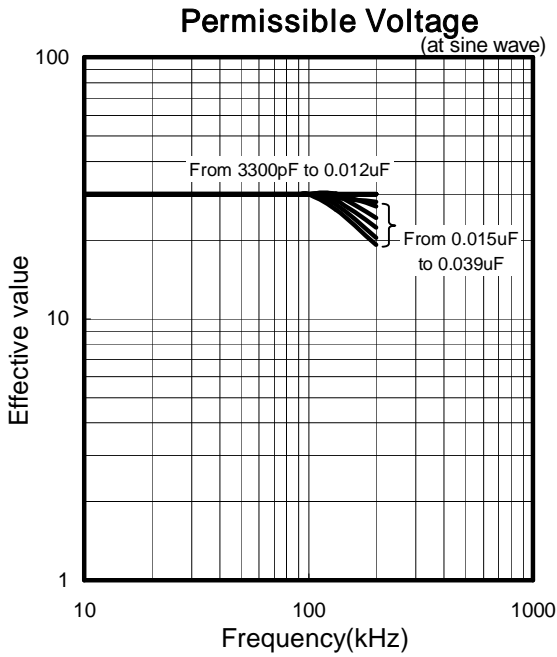
\*Please consult Panasonic if your condition exceeds the above

\*Permissible voltage graph is the case of sine waveform. When you use this product, peak voltage must not exceed DC rated voltage.

\*The current(0-P) value is calculated using nominal capacitance.

**ECHU (X) Type DC50V series (Stacked Metallized Film)**

**Applicable Specifications**



**Pulse Handling Capability (dv/dt) (Max 10000cycles)**

Rating Voltage	Capacitance Value(uF)	code	dV/dt (V/us)	Current (Ao-p)
DC 50V	0.00010	101	1100	0.11
	0.00012	121	1050	0.13
	0.00015	151	940	0.14
	0.00018	181	890	0.16
	0.00022	221	800	0.18
	0.00027	271	730	0.20
	0.00033	331	690	0.23
	0.00039	391	610	0.24
	0.00047	471	580	0.27
	0.00056	561	520	0.29
	0.00068	681	480	0.33
	0.00082	821	440	0.36
	0.0010	102	400	0.40
	0.0012	122	370	0.44
	0.0015	152	340	0.51
	0.0018	182	310	0.56
0.0022	222	270	0.59	
0.0027	272	260	0.70	

**Pulse Handling Capability (dv/dt) (Max 10000cycles)**

Rating Voltage	Capacitance Value(uF)	code	dV/dt (V/us)	Current (Ao-p)
DC 50V	0.0033	332	240	0.79
	0.0039	392	220	0.86
	0.0047	472	200	0.94
	0.0056	562	190	1.06
	0.0068	682	170	1.16
	0.0082	822	160	1.31
	0.010	103	145	1.45
	0.012	123	135	1.62
	0.015	153	120	1.80
	0.018	183	110	1.98
	0.022	223	100	2.20
	0.027	273	94	2.54
	0.033	333	86	2.84
	0.039	393	78	3.04

\*Please consult Panasonic if your condition exceeds the above

\*Permissible voltage graph is the case of sine waveform. When you use this product, peak voltage must not exceed DC rated voltage.

\*The current(0-P) value is calculated using nominal capacitance.

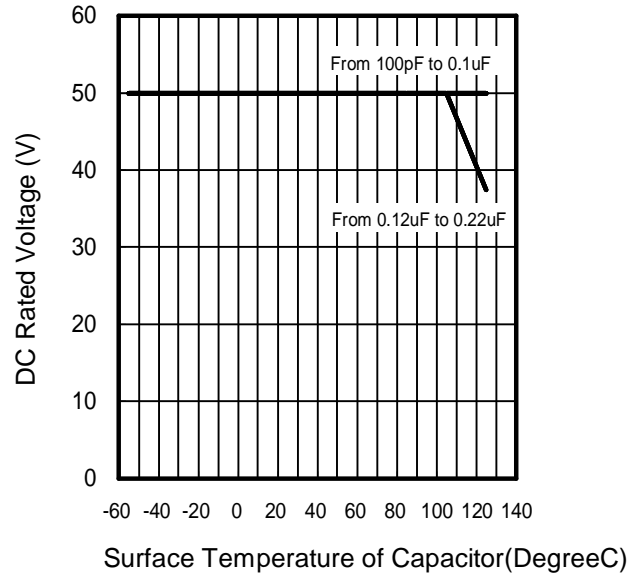
## ECHU (X) Type DC50V series (Stacked Metallized Film)

### Applicable Specifications

#### Pulse Handling Capability (dv/dt) (Max 10000cycles)

Rating Voltage	Capacitance Value(uF)	code	dV/dt (V/us)	Current (A <sub>o-p</sub> )
DC 50V	0.047	473	72	3.38
	0.056	563	68	3.81
	0.068	683	62	4.22
	0.082	823	56	4.59
	0.10	104	52	5.20
	0.12	124	48	5.76
	0.15	154	44	6.60
	0.18	184	40	7.20
	0.22	224	36	7.92

#### Voltage Derating by Temperature



\*Please consult Panasonic if your condition exceeds the above

\*Permissible voltage graph is the case of sine waveform. When you use this product, peak voltage must not exceed DC rated voltage.

\*The current(I-P) value is calculated using nominal capacitance.