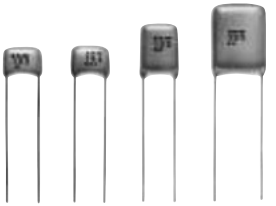
Stacked Metallized Film Capacitor

Type: **ECQV**

Designed for application where high density insertion of components is required.



■Features
- High volumetric efficiency
- Excellent electrical characteristics in non-inductive construction
- Wide range for automatic insertion

■Recommended Applications
- General purpose usage
- Noise suppression for logic circuits

■Explanation of Part Numbers

1	2	3	4	5	6	7	8	9	10	11	12
E	**C**	**Q**	**V**						**J**		
Product code		Dielectric & construction		Rated voltage		Capacitance			Cap. Tol.	Suffix	Suffix

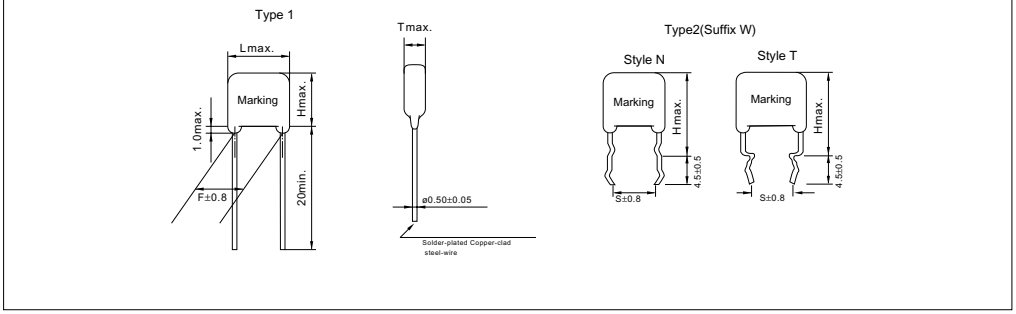
50VDC	63VDC	100VDC
1H	1J	1

Taping				Crimped lead	
Ammo		Reel		Type1	Type2
Straight	Crimped	Straight	Crimped		style N / style T
2	3	5	9	Blank	W

■Specifications

Category temp. range	−40 to +85℃
Rated voltage	50VDC, 63VDC, 100VDC
Capacitance range	0.01 to 2.2 μF
Capacitance tolerance	±5%(J)
Dissipation factor	1.0%max.(20℃ 1kHz)
Withstand voltage	Between terminals : Rated volt.(VDC)×150% 60s
Insulation resistance	C≦0.33μF : 3000MΩ min. (20℃, 50VDC 60s ECQV1H, ECQV1J) C>0.33μF : 1000MΩ . μFmin. (20℃, 100VDC 60s ECQV1)

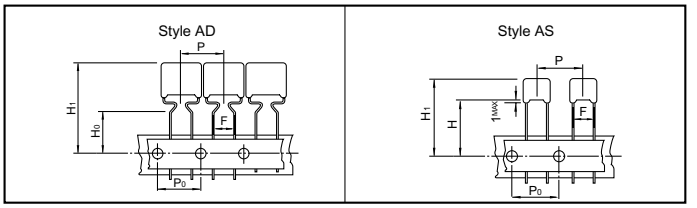
■Dimensions in mm(not to scale)



■Packaging Specifications for Bulk Package
Packing quantity:100pcs./bag

■Taping Specifications for Automatic Insertion

●Taping style



●Packaging Specifications

Type	Rated volt.	Cap. range (μF)	Taping style						Packing
			AD	AS	B	C	D	E	
ECQV (L)	50VDC	0.01 to 2.2	○						Ammo
		0.01 to 1.0		○					Ammo
		0.01 to 2.2	○						Reel
		0.01 to 1.0		○					Reel
ECQV (M)	63VDC	0.01 to 1.0	○						Ammo
		0.01 to 1.0	○						Reel
		0.01 to 0.15		○					Reel
	100VDC	0.01 to 0.47	○						Ammo
		0.01 to 0.47	○						Reel
		0.01 to 0.1		○					Ammo
		0.01 to 0.1		○					Reel

●Lead Spacing

Style	Lead Spacing
AD	5.0mm
AS	5.0mm

※See the column "Rating, Dimensions & Quantity Box" for packing quantity.

■Rating, Dimensions & Quantity/Ammo Box or Reel

●Type ECQV(L) Rated voltage : 50VDC

Part No.	Cap. (μF)	Dimensions (mm)							Quantity	
		$L^{max.}$	$T^{max.}$	$H^{max.}$		F	S	ød		
				Type-1	Type-2	Type-1	Type-2		Ammo	Reel
ECQV1H103JL( )	0.01	7.3	3.2	5.0	9.0	5.0	5.0	0.50	2000	2000
ECQV1H123JL( )	0.012	7.3	3.2	5.0	9.0	5.0	5.0	0.50		
ECQV1H153JL( )	0.015	7.3	3.2	5.0	9.0	5.0	5.0	0.50		
ECQV1H183JL( )	0.018	7.3	3.2	5.0	9.0	5.0	5.0	0.50		
ECQV1H223JL( )	0.022	7.3	3.2	5.0	9.0	5.0	5.0	0.50		
ECQV1H273JL( )	0.027	7.3	3.2	5.0	9.0	5.0	5.0	0.50		
ECQV1H333JL( )	0.033	7.3	3.2	5.0	9.0	5.0	5.0	0.50		
ECQV1H393JL( )	0.039	7.3	3.2	5.0	9.0	5.0	5.0	0.50		
ECQV1H473JL( )	0.047	7.3	3.2	5.0	9.0	5.0	5.0	0.50		
ECQV1H563JL( )	0.056	7.3	3.2	5.0	9.0	5.0	5.0	0.50		
ECQV1H683JL( )	0.068	7.3	3.2	5.0	9.0	5.0	5.0	0.50		
ECQV1H823JL( )	0.082	7.3	3.6	5.0	9.0	5.0	5.0	0.50		
ECQV1H104JL( )	0.1	7.3	4.0	5.0	9.0	5.0	5.0	0.50		
ECQV1H124JL( )	0.12	7.3	4.0	5.0	9.0	5.0	5.0	0.50		
ECQV1H154JL( )	0.15	7.3	4.4	5.5	9.5	5.0	5.0	0.50	1000	1000
ECQV1H184JL( )	0.18	7.3	4.5	5.5	9.5	5.0	5.0	0.50		
ECQV1H224JL( )	0.22	7.3	4.8	5.5	9.5	5.0	5.0	0.50		
ECQV1H274JL( )	0.27	7.3	4.6	7.0	11.0	5.0	5.0	0.50		
ECQV1H334JL( )	0.33	7.3	5.2	7.0	11.0	5.0	5.0	0.50		
ECQV1H394JL( )	0.39	7.3	5.7	7.3	11.3	5.0	5.0	0.50		
ECQV1H474JL( )	0.47	7.3	6.0	7.3	11.3	5.0	5.0	0.50		
ECQV1H564JL( )	0.56	7.3	5.8	10.0	14.0	5.0	5.0	0.50		
ECQV1H684JL( )	0.68	7.3	6.5	10.0	14.0	5.0	5.0	0.50		
ECQV1H824JL( )	0.82	7.3	6.8	10.0	14.0	5.0	5.0	0.50		
ECQV1H105JL( )	1.0	7.3	8.0	11.0	15.0	5.0	5.0	0.50		
ECQV1H125JL( )	1.2	10.2	6.5	10.0	14.0	7.5	5.0	0.50		
ECQV1H155JL( )	1.5	10.2	7.2	10.0	14.0	7.5	5.0	0.50		
ECQV1H185JL( )	1.8	10.2	7.2	12.0	16.5	7.5	5.0	0.50		
ECQV1H225JL( )	2.2	10.2	7.9	12.0	16.5	7.5	5.0	0.50		

└ Suffix for lead crimped or taped type

styleN:0.01 to 1.0 μF
styleT:1.2 to 2.2 μF

■Rating, Dimensions & Quantity/Ammo Box or Reel

●Type ECQV(M) Rated voltage : 63VDC

Part No.	Cap. (μF)	Dimensions (mm)							Quantity	
		L max.	T max.	H max.		F	S	ød		
				Type-1	Type-2	Type-1	Type-2		Ammo	Reel
ECQV1J103JM( )	0.01	7.5	3.2	6.8	10.8	5.0	5.0	0.50	2000	2000
ECQV1J123JM( )	0.012	7.5	3.2	6.8	10.8	5.0	5.0	0.50		
ECQV1J153JM( )	0.015	7.5	3.2	6.8	10.8	5.0	5.0	0.50		
ECQV1J183JM( )	0.018	7.5	3.2	6.8	10.8	5.0	5.0	0.50		
ECQV1J223JM( )	0.022	7.5	3.2	6.8	10.8	5.0	5.0	0.50		
ECQV1J273JM( )	0.027	7.5	3.2	6.8	10.8	5.0	5.0	0.50		
ECQV1J333JM( )	0.033	7.5	3.2	6.8	10.8	5.0	5.0	0.50		
ECQV1J393JM( )	0.039	7.5	3.2	6.8	10.8	5.0	5.0	0.50		
ECQV1J473JM( )	0.047	7.5	3.2	6.8	10.8	5.0	5.0	0.50		
ECQV1J563JM( )	0.056	7.5	3.2	6.8	10.8	5.0	5.0	0.50		
ECQV1J683JM( )	0.068	7.5	3.2	6.8	10.8	5.0	5.0	0.50		
ECQV1J823JM( )	0.082	7.5	3.2	6.8	10.8	5.0	5.0	0.50		
ECQV1J104JM( )	0.1	7.5	3.2	7.0	11.0	5.0	5.0	0.50		
ECQV1J124JM( )	0.12	7.5	3.8	7.0	11.0	5.0	5.0	0.50		
ECQV1J154JM( )	0.15	7.5	4.1	7.0	11.0	5.0	5.0	0.50		
ECQV1J184JM( )	0.18	10.2	3.5	9.0	14.0	7.5	5.0	0.50		
ECQV1J224JM( )	0.22	10.2	3.5	9.0	14.0	7.5	5.0	0.50		
ECQV1J274JM( )	0.27	10.2	3.5	9.0	14.0	7.5	5.0	0.50		
ECQV1J334JM( )	0.33	10.2	3.8	9.0	14.0	7.5	5.0	0.50		
ECQV1J394JM( )	0.39	10.2	4.0	9.0	14.0	7.5	5.0	0.50		
ECQV1J474JM( )	0.47	10.2	4.5	9.0	14.0	7.5	5.0	0.50	1000	1000
ECQV1J564JM( )	0.56	10.2	4.9	9.0	14.0	7.5	5.0	0.50		
ECQV1J684JM( )	0.68	10.2	5.5	10.0	15.0	7.5	5.0	0.50		
ECQV1J824JM( )	0.82	10.2	6.1	10.0	15.0	7.5	5.0	0.50		
ECQV1J105JM( )	1.0	10.2	6.9	10.0	15.0	7.5	5.0	0.50		

StyleN:0.01 to 0.15 μF
StyleT:0.18 to 1.0 μF

●Type ECQV(M) Rated voltage : 100VDC

Part No.	Cap. (μF)	Dimensions (mm)							Quantity	
		L max.	T max.	H max.		F	S	ød		
				Type-1	Type-2	Type-1	Type-2		Ammo	Reel
ECQV1103JM( )	0.01	7.5	3.2	7.0	12.0	5.0	5.0	0.50	2000	2000
ECQV1123JM( )	0.012	7.5	3.2	7.0	12.0	5.0	5.0	0.50		
ECQV1153JM( )	0.015	7.5	3.2	7.0	12.0	5.0	5.0	0.50		
ECQV1183JM( )	0.018	7.5	3.2	7.0	12.0	5.0	5.0	0.50		
ECQV1223JM( )	0.022	7.5	3.2	7.0	12.0	5.0	5.0	0.50		
ECQV1273JM( )	0.027	7.5	3.2	7.0	12.0	5.0	5.0	0.50		
ECQV1333JM( )	0.033	7.5	3.2	7.0	12.0	5.0	5.0	0.50		
ECQV1393JM( )	0.039	7.5	3.2	7.0	12.0	5.0	5.0	0.50		
ECQV1473JM( )	0.047	7.5	3.2	7.0	12.0	5.0	5.0	0.50		
ECQV1563JM( )	0.056	7.5	3.2	7.0	12.0	5.0	5.0	0.50		
ECQV1683JM( )	0.068	7.5	4.0	7.0	12.0	5.0	5.0	0.50		
ECQV1823JM( )	0.082	7.5	4.1	7.0	12.0	5.0	5.0	0.50	1000	1000
ECQV1104JM( )	0.1	7.5	4.5	7.0	12.0	5.0	5.0	0.50		
ECQV1124JM( )	0.12	10.2	3.3	9.0	14.0	7.5	5.0	0.50	2000	2000
ECQV1154JM( )	0.15	10.2	3.3	9.0	14.0	7.5	5.0	0.50		
ECQV1184JM( )	0.18	10.2	3.6	9.0	14.0	7.5	5.0	0.50		
ECQV1224JM( )	0.22	10.2	4.0	9.0	14.0	7.5	5.0	0.50		
ECQV1274JM( )	0.27	10.2	4.2	9.0	14.0	7.5	5.0	0.50	1000	1000
ECQV1334JM( )	0.33	10.2	4.8	10.0	15.0	7.5	5.0	0.50		
ECQV1394JM( )	0.39	10.2	5.5	10.0	15.0	7.5	5.0	0.50		
ECQV1474JM( )	0.47	10.2	6.8	10.5	15.5	7.5	5.0	0.50		

Suffix for lead crimped or taped type

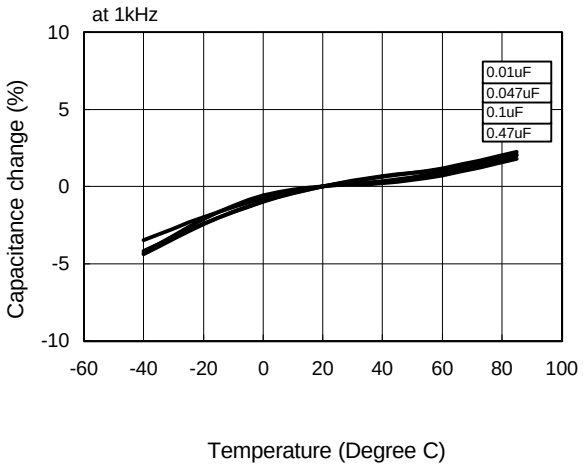
StyleN:0.01 to 0.1 μF

Panasonic

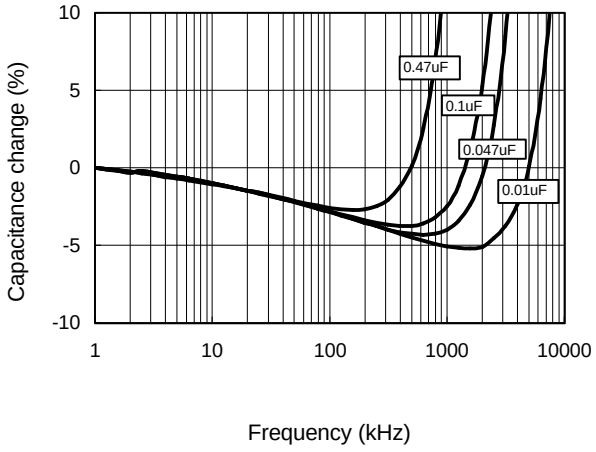
ECQV(M) Type 100VDC Series (Polyester Film)

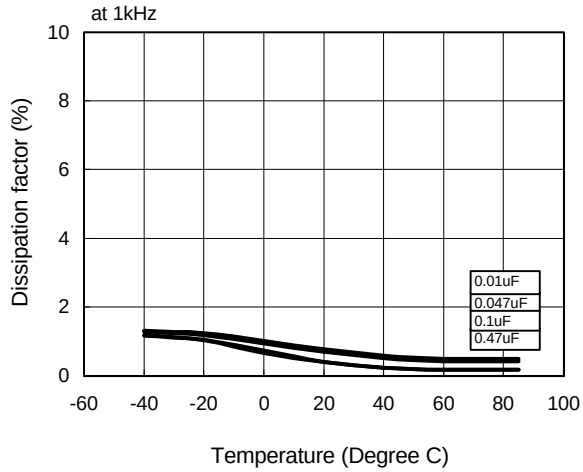
Erectrical Characteristics <Typical Data>

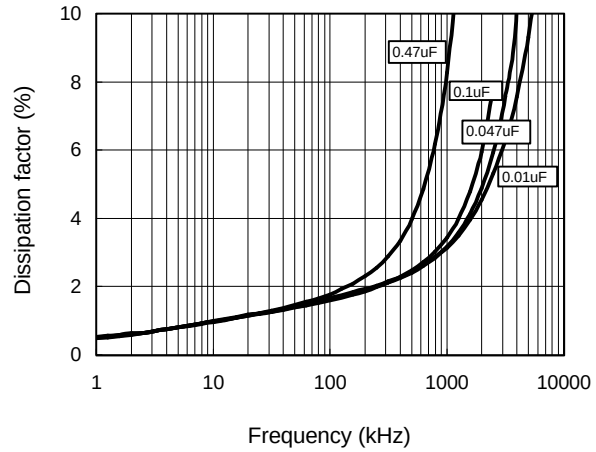
Temperature Characteristics

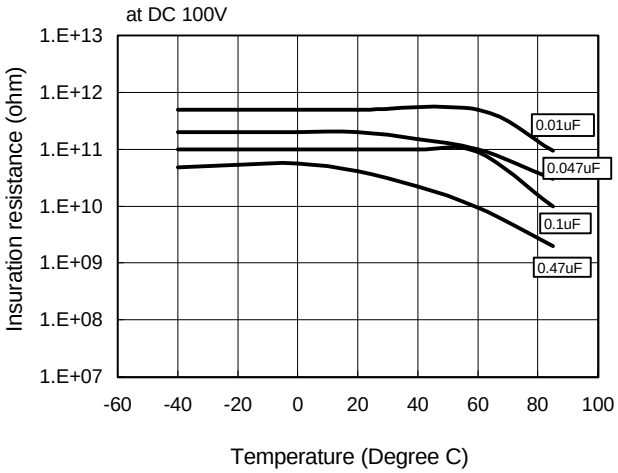


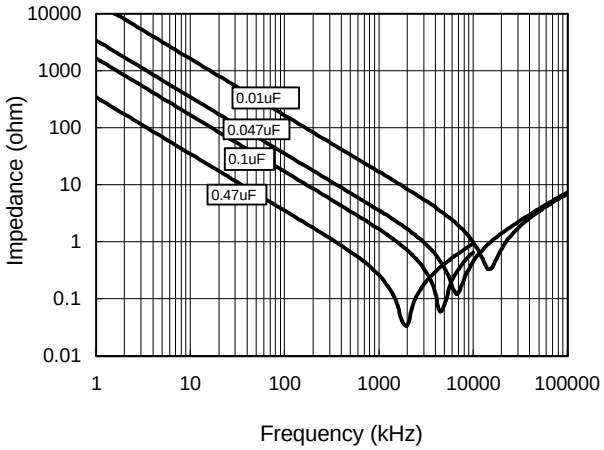
Frequency Characteristics









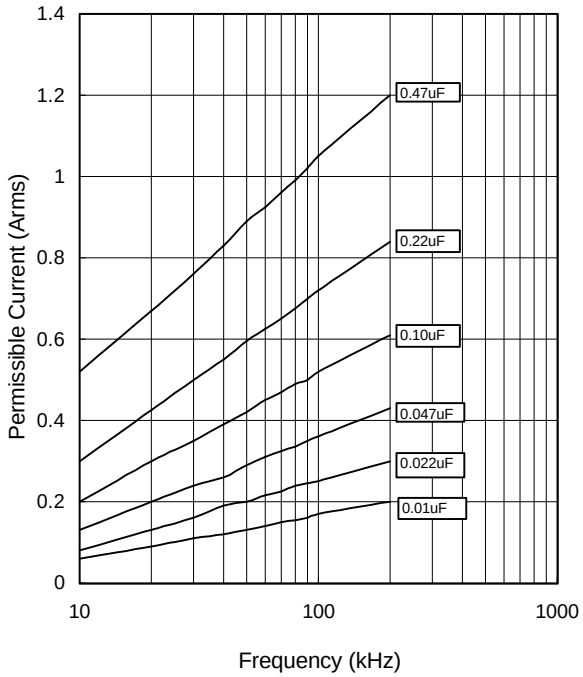


Panasonic

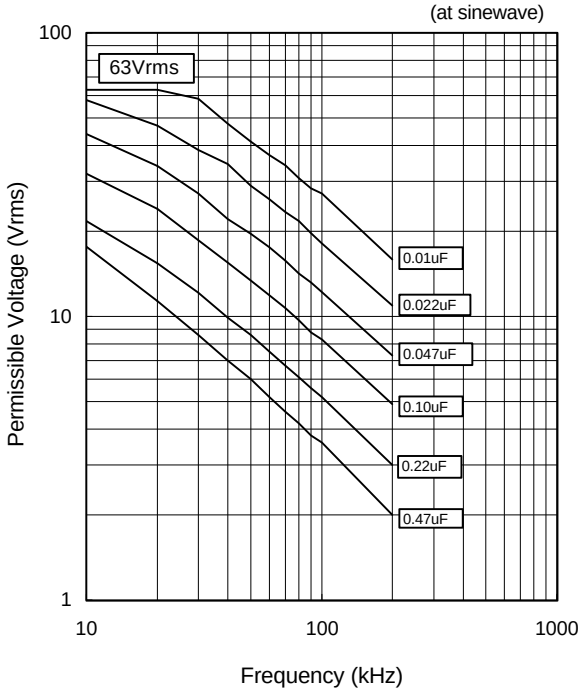
ECQV(M) Type 100VDC Series (Polyester Film)

Applicable Specifications

Permissible Current



Permissible Voltage

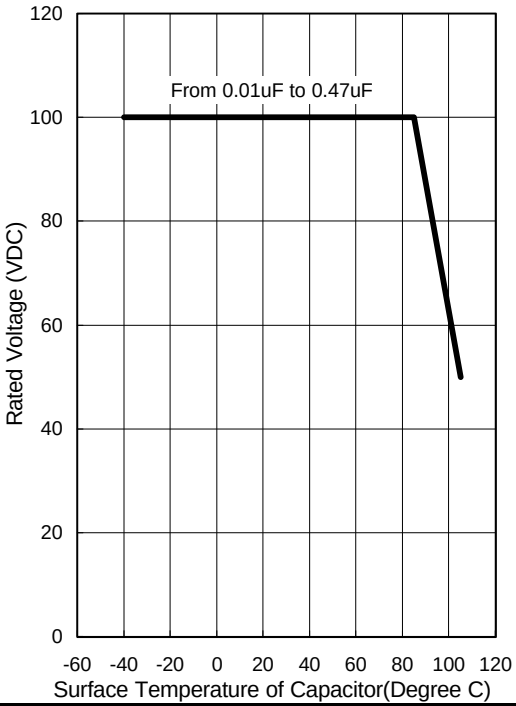


Pulse Handling Capability (dV/dt)

(Max 10000cycles)

Rating Voltage	Capacitance Value(uF)	Code	dV/dt(V/us)	Current(o-p) (A)
100VDC	0.010	103	55	0.55
	0.015	153		0.83
	0.022	223		1.21
	0.033	333		1.82
	0.047	473		2.59
	0.068	683		3.74
	0.100	104		5.50
	0.150	154	43	6.45
	0.220	224		9.46
	0.330	334		14.19
	0.470	474		20.21

Voltage Derating by Temperature



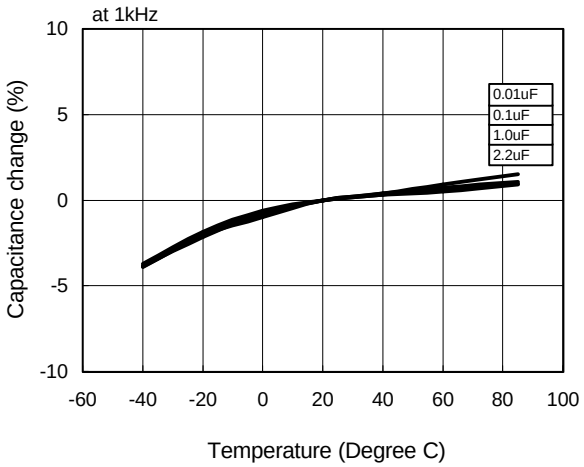
* Please consult Panasonic if your condition exceeds the above spec.

Panasonic

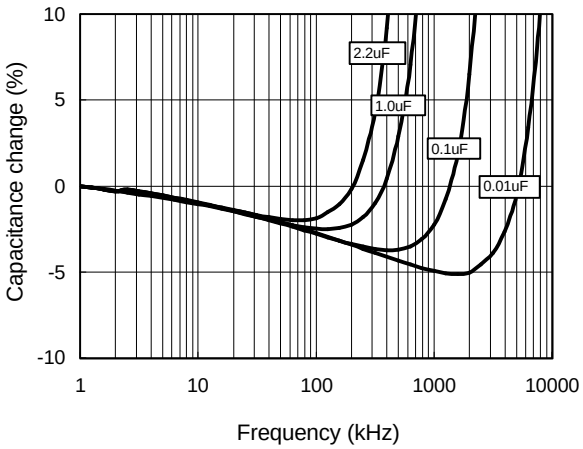
ECQV(L) Type 50VDC Series (Polyester Film)

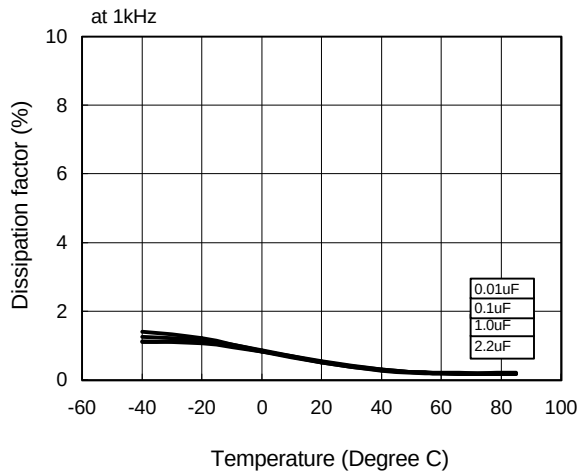
Erectrical Characteristics <Typical Data>

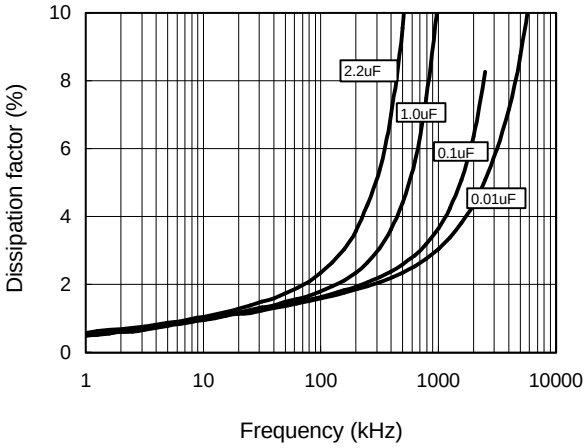
Temperature Characteristics

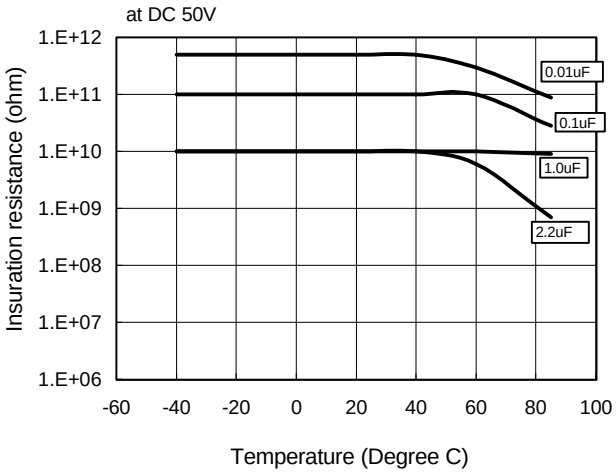


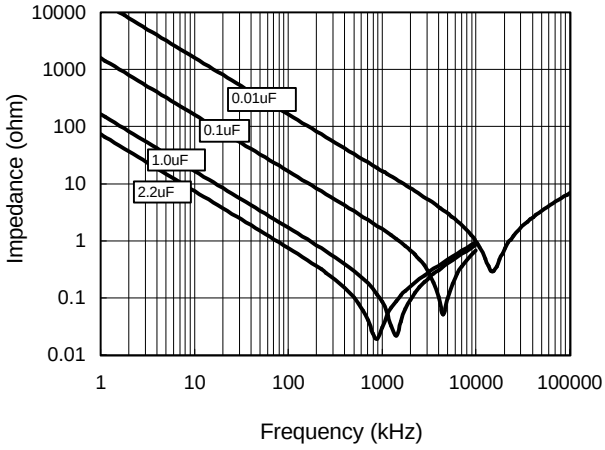
Frequency Characteristics









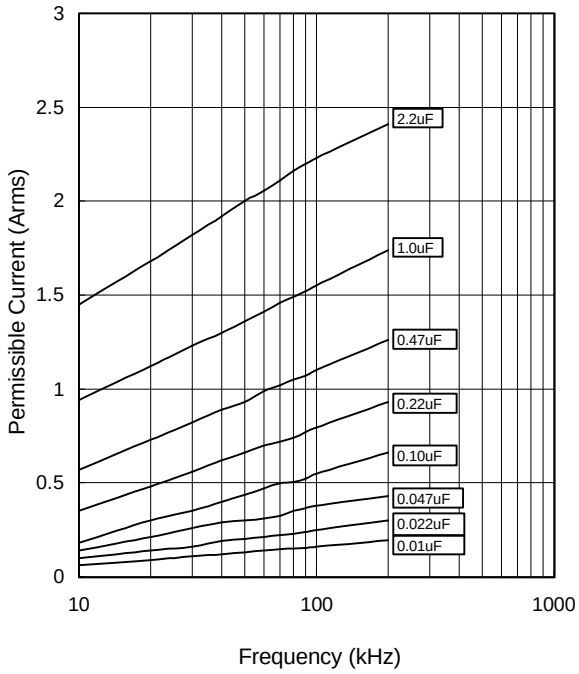


Panasonic

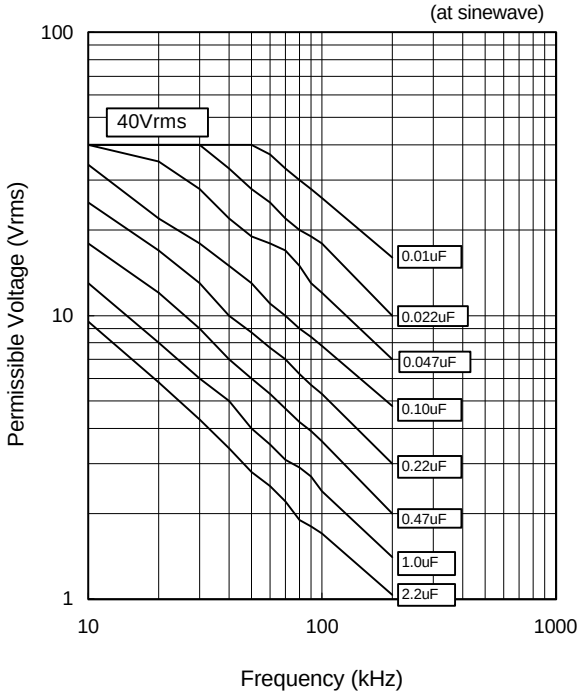
ECQV(L) Type 50VDC Series (Polyester Film)

Applicable Specifications

Permissible Current



Permissible Voltage

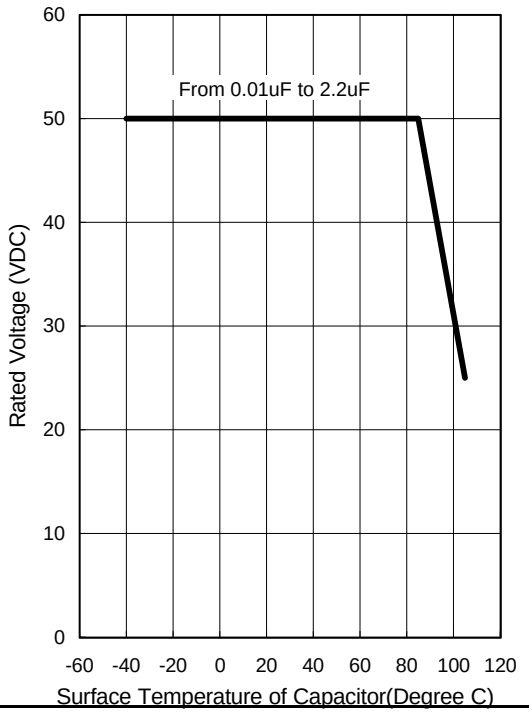


Pulse Handling Capability (dV/dt)

(Max 10000cycles)

Rating Voltage	Capacitance Value(uF)	Code	dV/dt(V/us)	Current(o-p) (A)
50VDC	0.010	103	37	0.37
	0.015	153		0.56
	0.022	223		0.81
	0.033	333		1.22
	0.047	473		1.74
	0.068	683		2.52
	0.100	104	32	3.20
	0.150	154		4.80
	0.220	224		7.04
	0.330	334		10.56
	0.470	474		15.04
	0.680	684		21.76
	1.000	105		32.00
	1.500	155	12	18.00
	2.200	225		26.40

Voltage Derating by Temperature



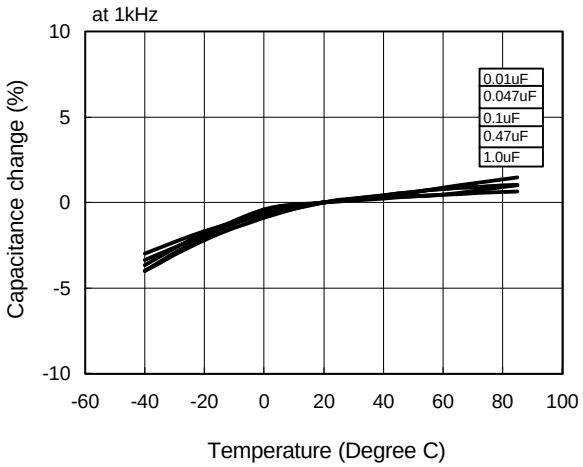
* Please consult Panasonic if your condition exceeds the above spec.

Panasonic

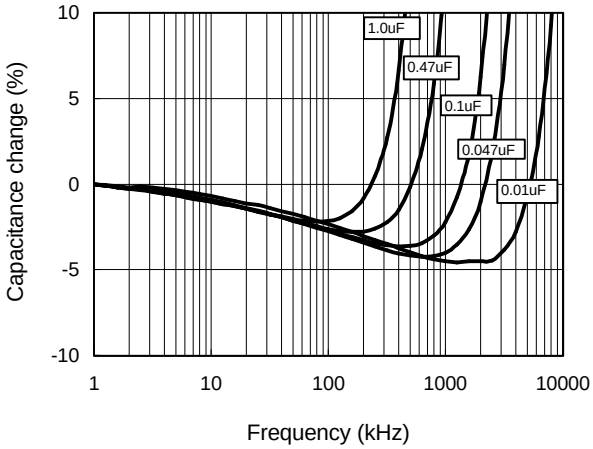
ECQV(M) Type 63VDC Series (Polyester Film)

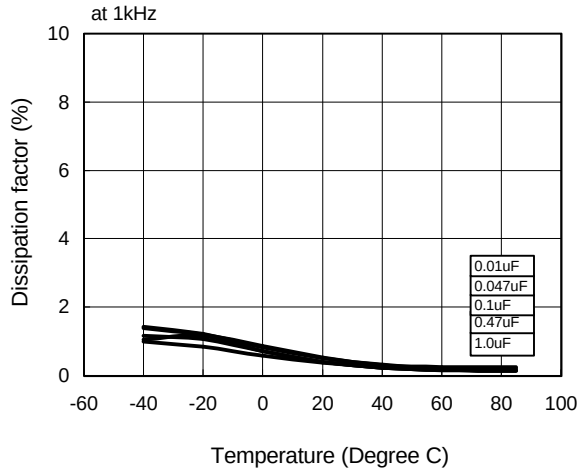
Erectrical Characteristics <Typical Data>

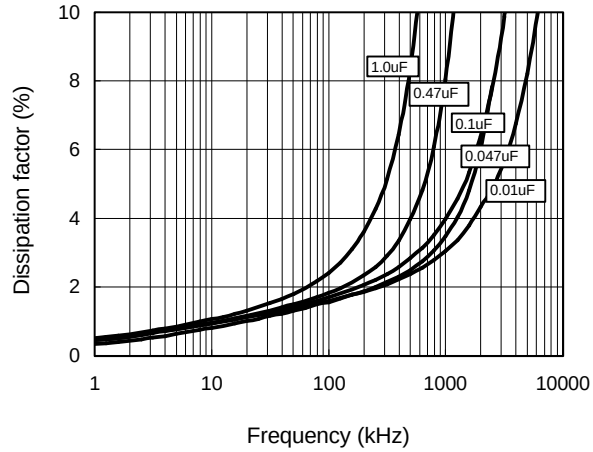
Temperature Characteristics

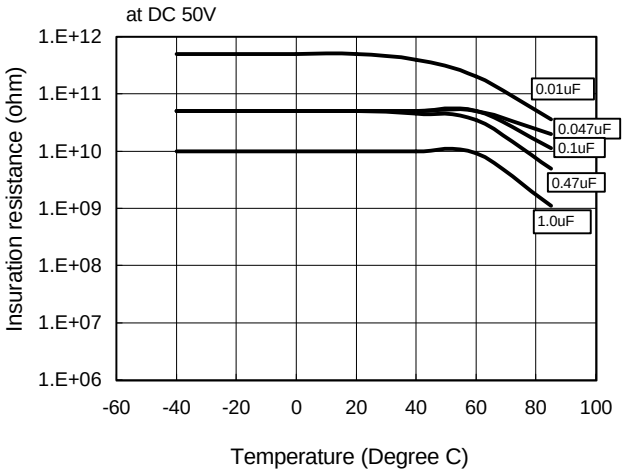


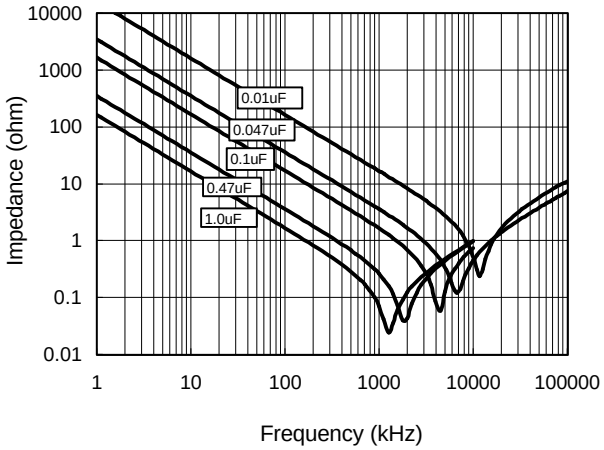
Frequency Characteristics









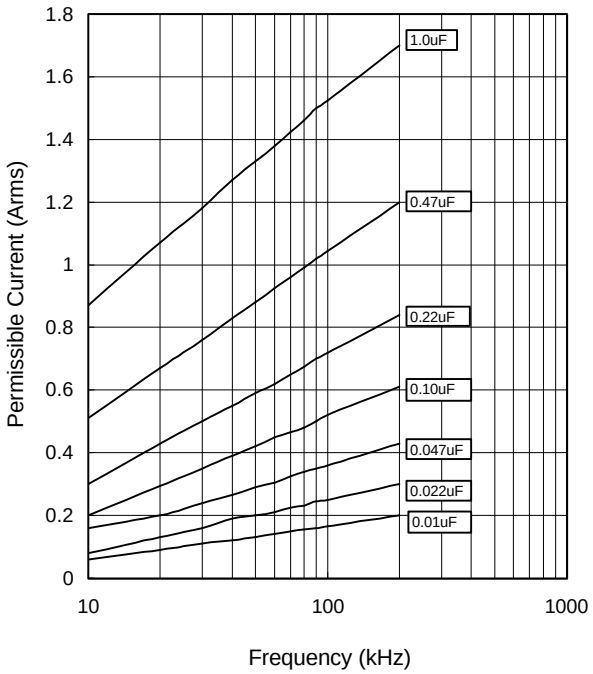


Panasonic

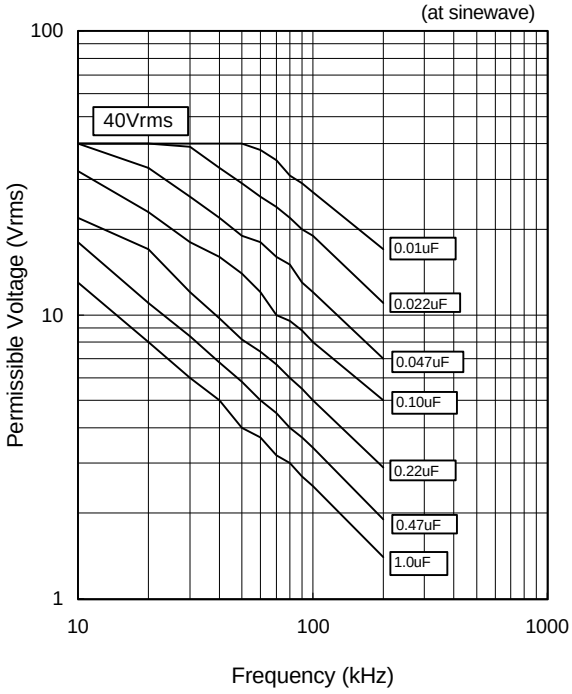
ECQV(M) Type 63VDC Series (Polyester Film)

Applicable Specifications

Permissible Current



Permissible Voltage

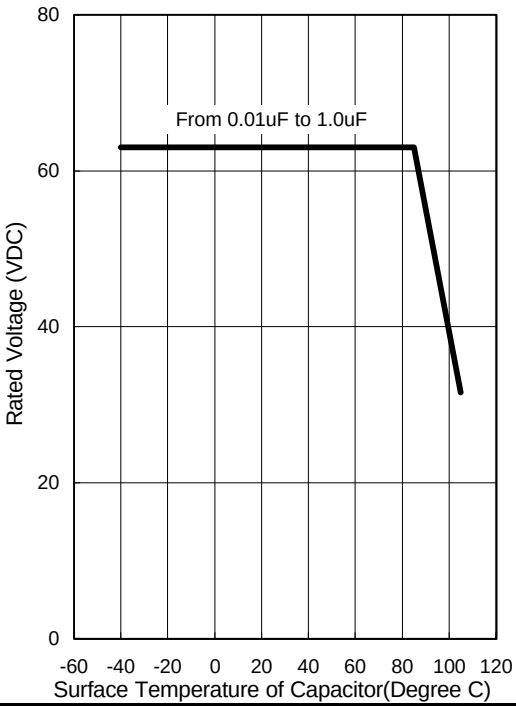


Pulse Handling Capability (dV/dt)

(Max 10000cycles)

Rating Voltage	Capacitance Value(uF)	Code	dV/dt(V/us)	Current(o-p) (A)
63VDC	0.010	103	49	0.49
	0.015	153		0.74
	0.022	223		1.08
	0.033	333		1.62
	0.047	473		2.30
	0.068	683		3.33
	0.100	104		4.90
	0.150	154		7.35
	0.220	224	45	9.90
	0.330	334		14.85
	0.470	474		21.15
	0.680	684		30.60
	1.000	105	33	33.00

Voltage Derating by Temperature



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