



Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

Technical Data ZC series



Capacitor Business Division
Automotive & Industrial Systems Company, Panasonic Co., Ltd.

Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

V type ZC series



EEHZC1E330R	25V33 μ F	ϕ 5x5.8	... ZC-2
EEHZC1E560P	25V56 μ F	ϕ 6.3x5.8	... ZC-3
EEHZC1E101XP	25V100 μ F	ϕ 6.3x7.7	... ZC-4
EEHZC1E221P	25V220 μ F	ϕ 8x10.2	... ZC-5
EEHZC1E331P	25V330 μ F	ϕ 10x10.2	... ZC-6
EEHZC1V220R	35V22 μ F	ϕ 5x5.8	... ZC-7
EEHZC1V470P	35V47 μ F	ϕ 6.3x5.8	... ZC-8
EEHZC1V680XP	35V68 μ F	ϕ 6.3x7.7	... ZC-9
EEHZC1V151P	35V150 μ F	ϕ 8x10.2	... ZC-10
EEHZC1V271P	35V270 μ F	ϕ 10x10.2	... ZC-11
EEHZC1H100R	50V10 μ F	ϕ 5x5.8	... ZC-12
EEHZC1H220P	50V22 μ F	ϕ 6.3x5.8	... ZC-13
EEHZC1H330XP	50V33 μ F	ϕ 6.3x7.7	... ZC-14
EEHZC1H680P	50V68 μ F	ϕ 8x10.2	... ZC-15
EEHZC1H101P	50V100 μ F	ϕ 10x10.2	... ZC-16
EEHZC1J100P	63V10 μ F	ϕ 6.3x5.8	... ZC-17
EEHZC1J220XP	63V22 μ F	ϕ 6.3x7.7	... ZC-18
EEHZC1J330P	63V33 μ F	ϕ 8x10.2	... ZC-19
EEHZC1J560P	63V56 μ F	ϕ 10x10.2	... ZC-20

Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

V type ZC series

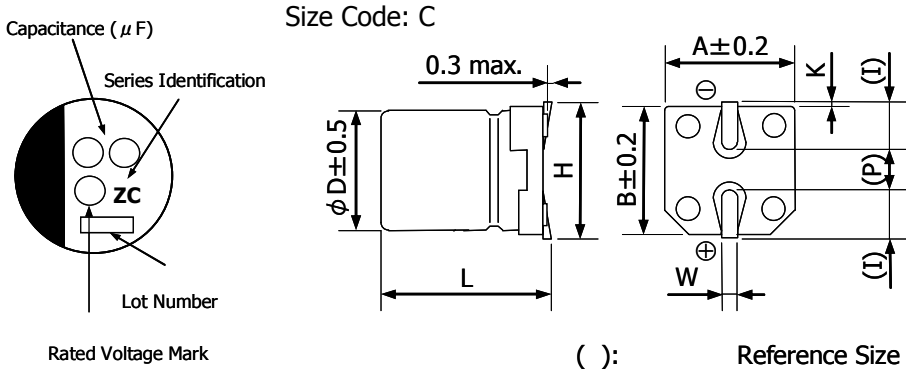
Part Number: **EEHZC1E330R**

$\phi 5.0 \times 5.8$ mm / 25 V / 33 μ F / 125 °C, 4000 h

Category Temperature Range	-55 to 125 °C
Rated W.V. Range	DC 25 V
Nominal Capacitance Range	33 μ F (at 120 Hz)
Capacitance Tolerance	± 20 %

$\tan\delta$	0.14 max. (at 120 Hz)
DC Leakage Current	8.2 μ A (0.01CV) max. (at W.V., After 2 min)
ESR	80 m Ω max. (at 100 kHz)
Ripple Current	550 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

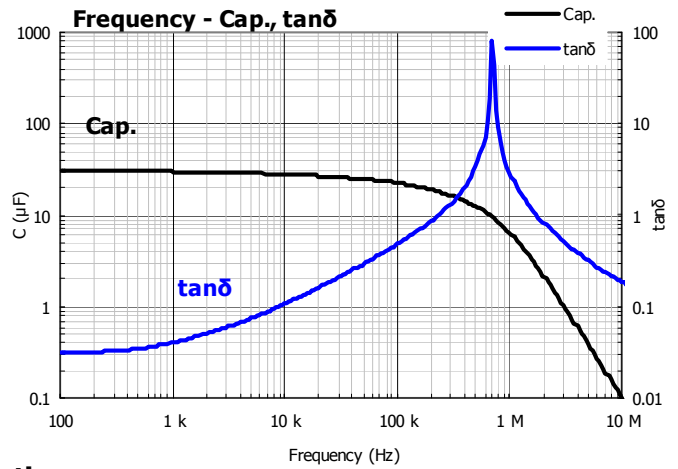
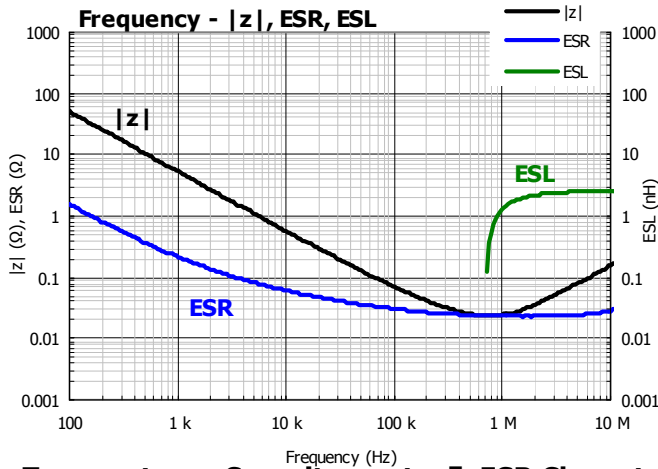
Marking, Dimensions in mm (not to scale)



	(mm)
D	5.0
L	5.8 \pm 0.3
A, B	5.3
H	6.5 max.
I	2.2
W	0.65 \pm 0.10
P	1.5
K	0.35 \pm 0.15/-0.20

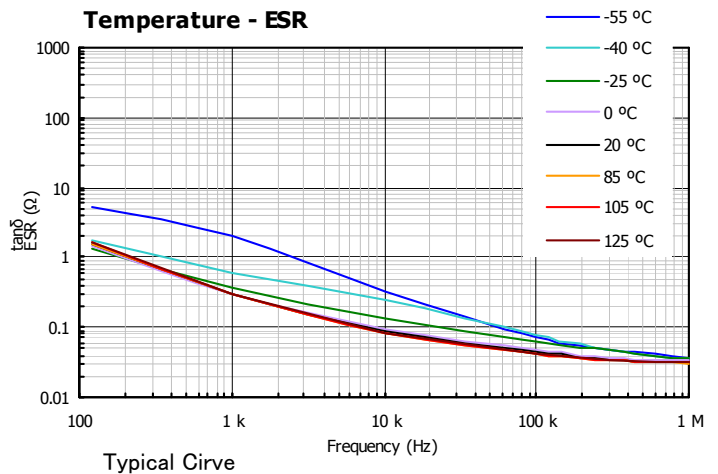
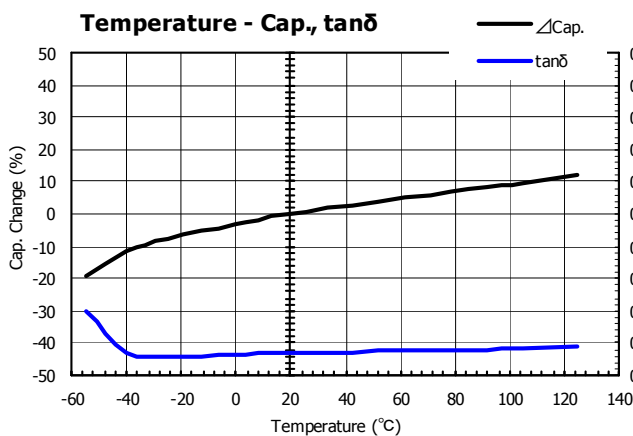
Frequency - $|z|$, ESR, ESL, Capacitance, $\tan\delta$ Characteristics

Osc. Level: 0.5 Vrms (at no load)



Temperature - Capacitance, $\tan\delta$, ESR Characteristics

Osc. Level: 1.0 Vrms (at no load)



Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

V type ZC series

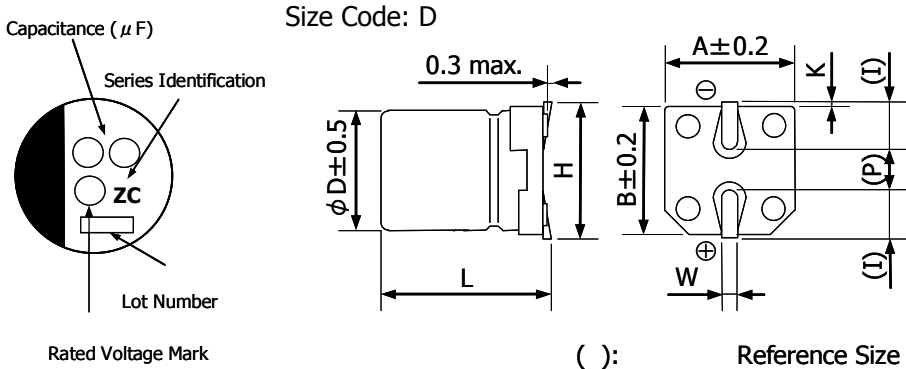
Part Number: **EEHZC1E560P**

$\phi 6.3 \times 5.8$ mm / 25 V / 56 μ F / 125 °C, 4000 h

Category Temperature Range	-55 to 125 °C
Rated W.V. Range	DC 25 V
Nominal Capacitance Range	56 μ F (at 120 Hz)
Capacitance Tolerance	± 20 %

$\tan \delta$	0.14 max. (at 120 Hz)
DC Leakage Current	14 μ A (0.01CV) max. (at W.V., After 2 min)
ESR	50 m Ω max. (at 100 kHz)
Ripple Current	900 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

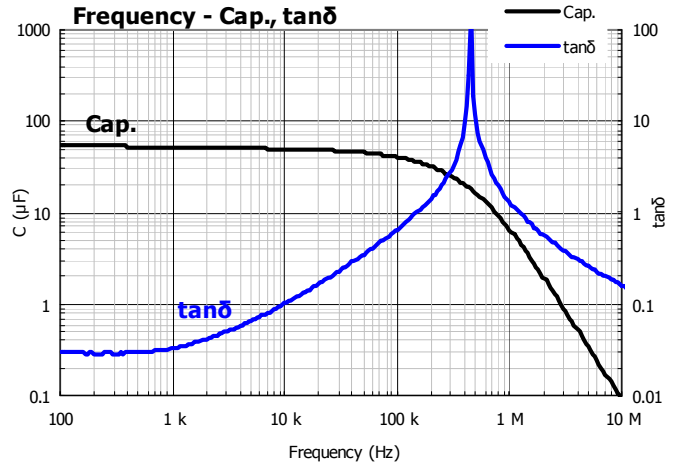
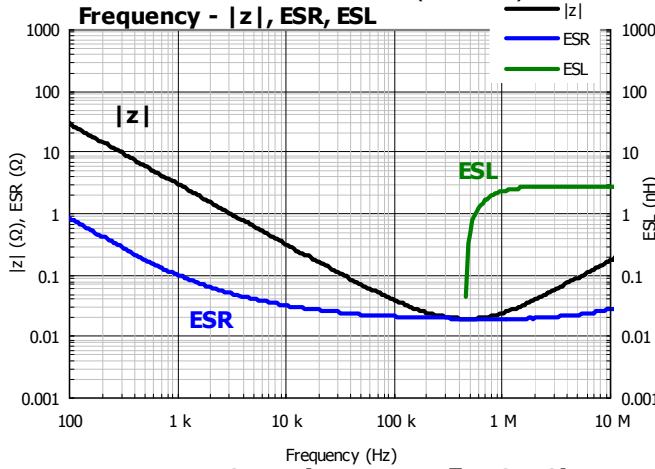
Marking, Dimensions in mm (not to scale)



	(mm)
D	6.3
L	5.8 \pm 0.3
A, B	6.6
H	7.8 max.
I	2.6
W	0.65 \pm 0.10
P	1.8
K	0.35 \pm 0.15/-0.20

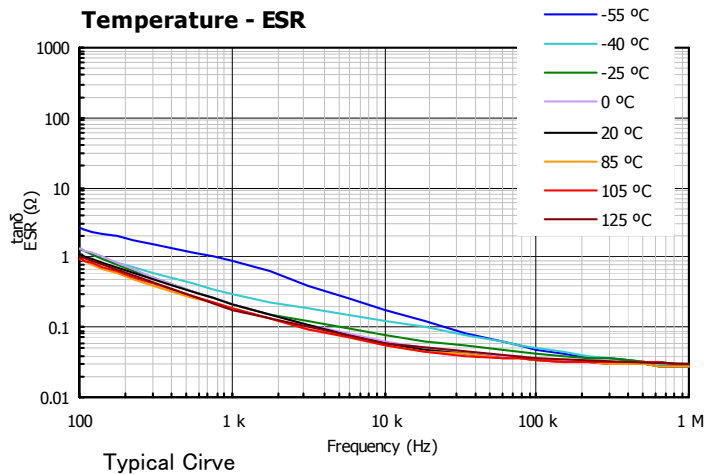
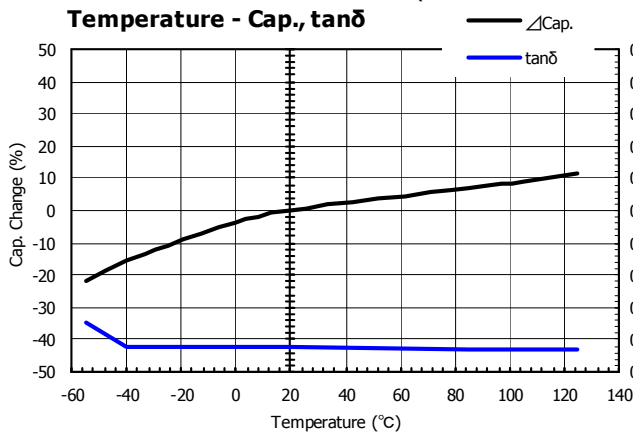
Frequency - $|z|$, ESR, ESL, Capacitance, $\tan \delta$ Characteristics

Osc. Level: 0.5 Vrms (at no load)



Temperature - Capacitance, $\tan \delta$, ESR Characteristics

Osc. Level: 1.0 Vrms (at no load)



Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

V type ZC series

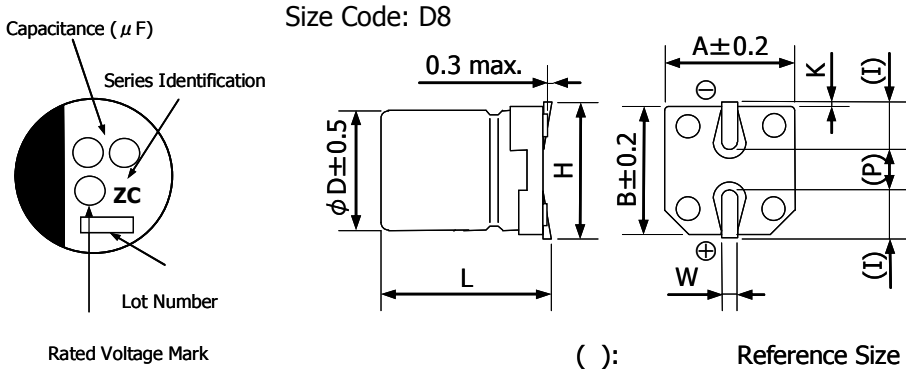
Part Number: **EEHZC1E101XP**

$\phi 6.3 \times 7.7$ mm / 25 V / 100 μ F / 125 °C, 4000 h

Category Temperature Range	-55 to 125 °C
Rated W.V. Range	DC 25 V
Nominal Capacitance Range	100 μ F (at 120 Hz)
Capacitance Tolerance	± 20 %

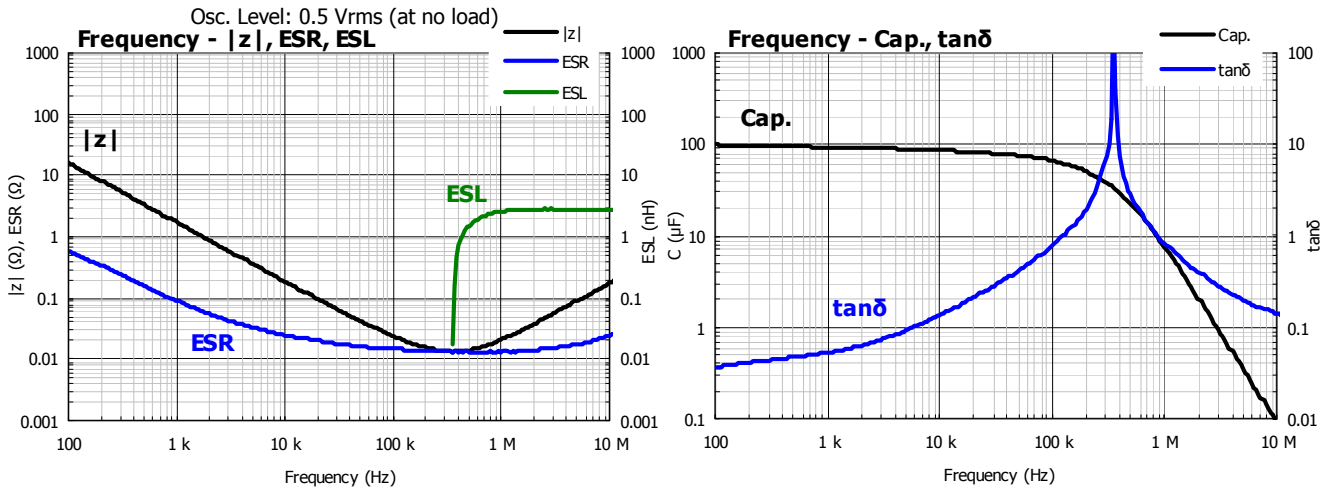
$\tan \delta$	0.12 max. (at 120 Hz)
DC Leakage Current	25 μ A (0.01CV) max. (at W.V., After 2 min)
ESR	30 m Ω max. (at 100 kHz)
Ripple Current	1400 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

Marking, Dimensions in mm (not to scale)

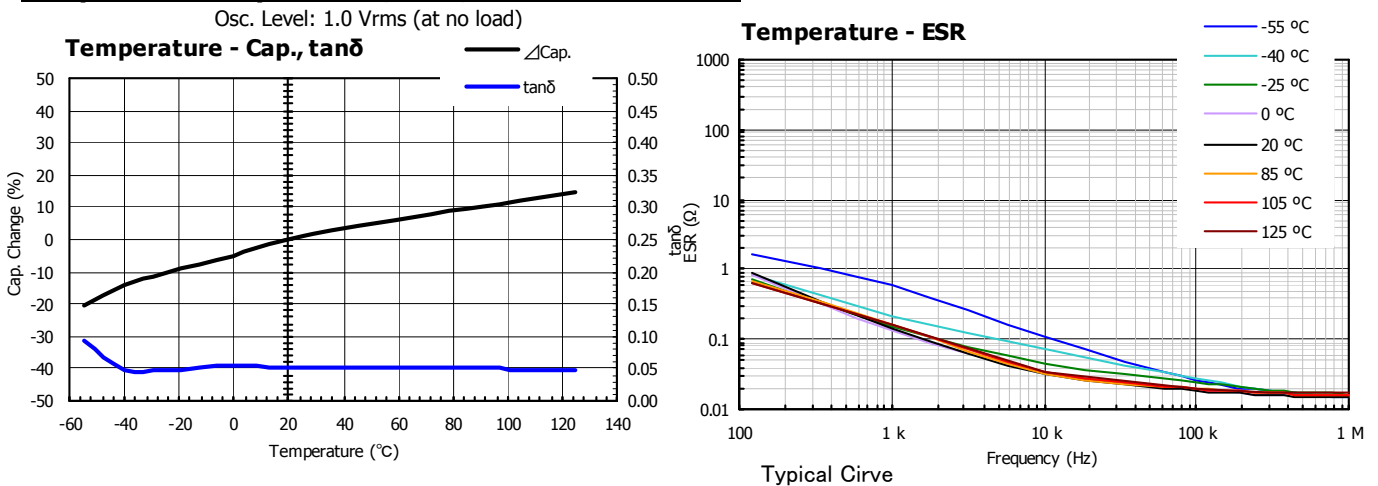


	(mm)
D	6.3
L	5.8 \pm 0.3
A, B	6.6
H	7.8 max.
I	2.6
W	0.65 \pm 0.10
P	1.8
K	0.35 \pm 0.15/-0.20

Frequency - |z|, ESR, ESL, Capacitance, $\tan \delta$ Characteristics



Temperature - Capacitance, $\tan \delta$, ESR Characteristics



Technical Data

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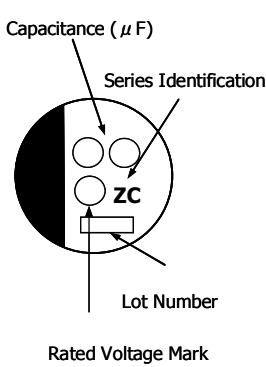
Part Number: **EEHZC1E221P**

φ8.0×10.2 mm / 25 V / 220 μF / 125 °C, 4000 h

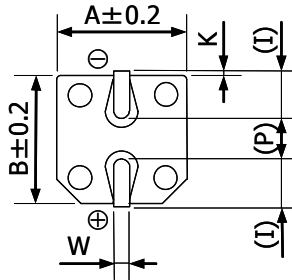
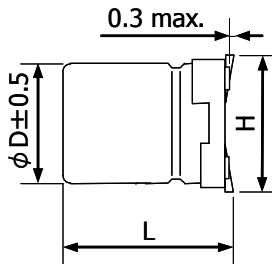
Category Temperature Range	-55 to 125 °C
Rated W.V. Range	DC 25 V
Nominal Capacitance Range	220 μF (at 120 Hz)
Capacitance Tolerance	±20 %

tanδ	0.14 max. (at 120 Hz)
DC Leakage Current	55 μA (0.01CV) max. (at W.V., After 2 min)
ESR	27 mΩ max. (at 100 kHz)
Ripple Current	1600 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

Marking, Dimensions in mm (not to scale)



Size Code: F

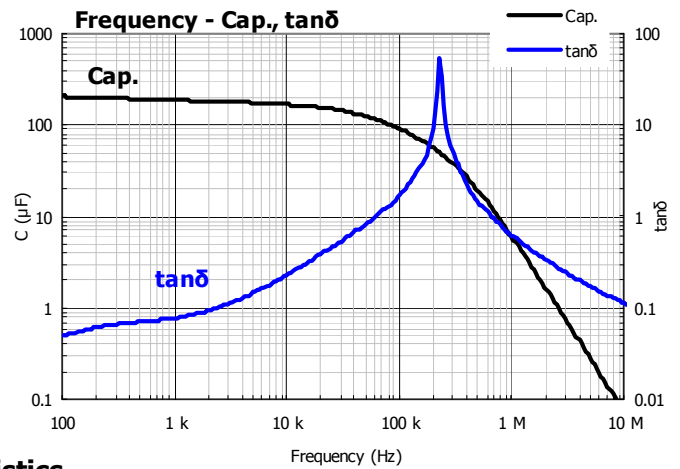
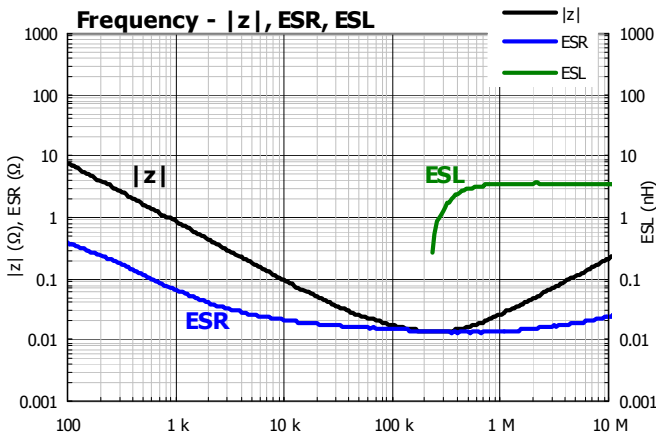


	(mm)
D	8.0
L	10.2±0.3
A, B	8.3
H	10.0 max.
I	3.4
W	0.9±0.2
P	3.1
K	0.7±0.2

(): Reference Size

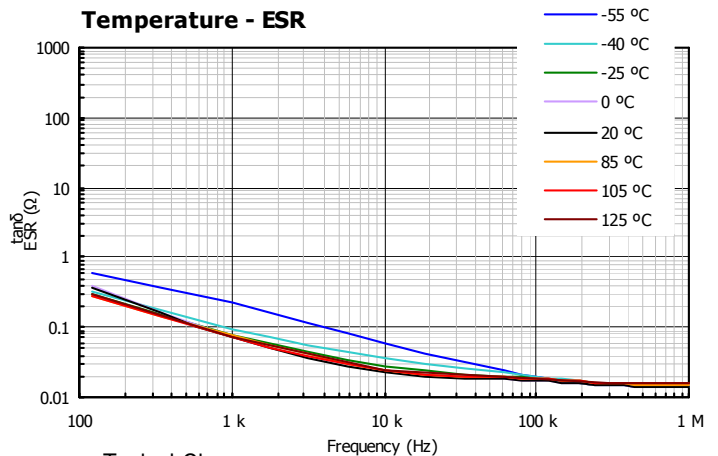
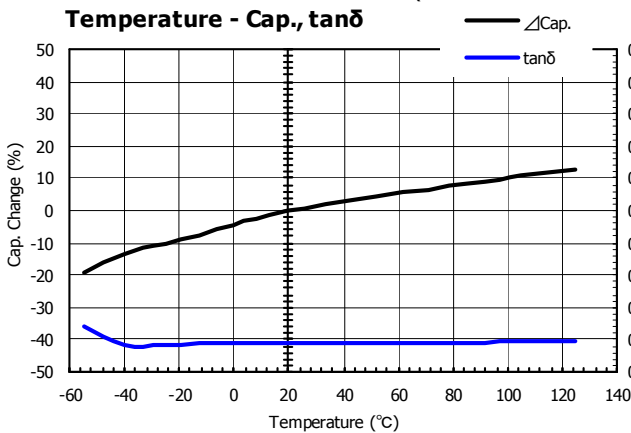
Frequency - |z|, ESR, ESL, Capacitance, tanδ Characteristics

Osc. Level: 0.5 Vrms (at no load)



Temperature - Capacitance, tanδ, ESR Characteristics

Osc. Level: 1.0 Vrms (at no load)



Typical Curve

Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

V type ZC series

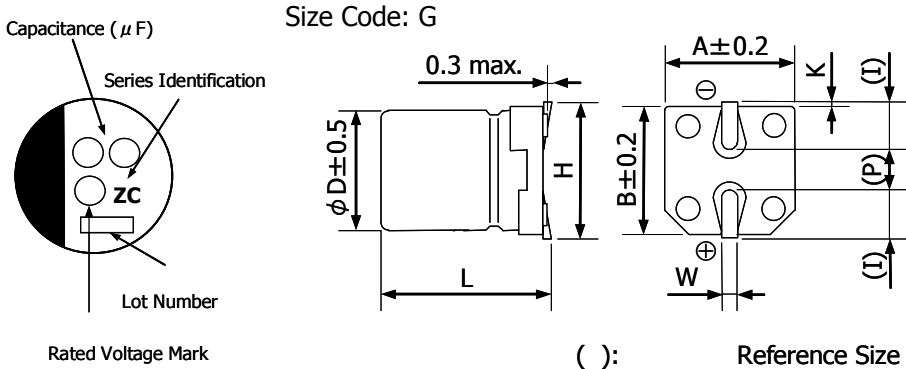
Part Number: **EEHZC1E331P**

$\phi 10.0 \times 10.2$ mm / 25 V / 330 μ F / 125 °C, 4000 h

Category Temperature Range	-55 to 125 °C
Rated W.V. Range	DC 25 V
Nominal Capacitance Range	330 μ F (at 120 Hz)
Capacitance Tolerance	± 20 %

$\tan \delta$	0.14 max. (at 120 Hz)
DC Leakage Current	82.5 μ A (0.01CV) max. (at W.V., After 2 min)
ESR	20 m Ω max. (at 100 kHz)
Ripple Current	2000 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

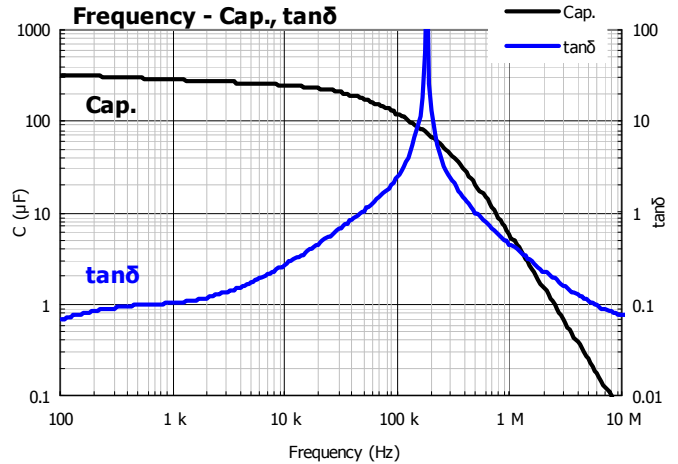
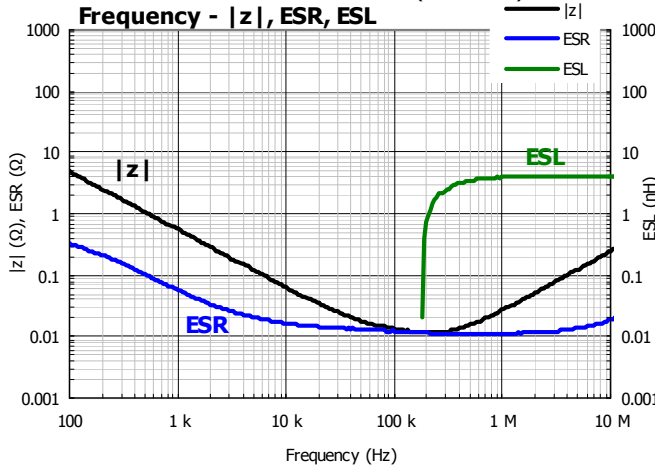
Marking, Dimensions in mm (not to scale)



	(mm)
D	10.0
L	10.2 \pm 0.3
A, B	10.3
H	12.0 max.
I	3.5
W	0.9 \pm 0.2
P	4.6
K	0.7 \pm 0.2

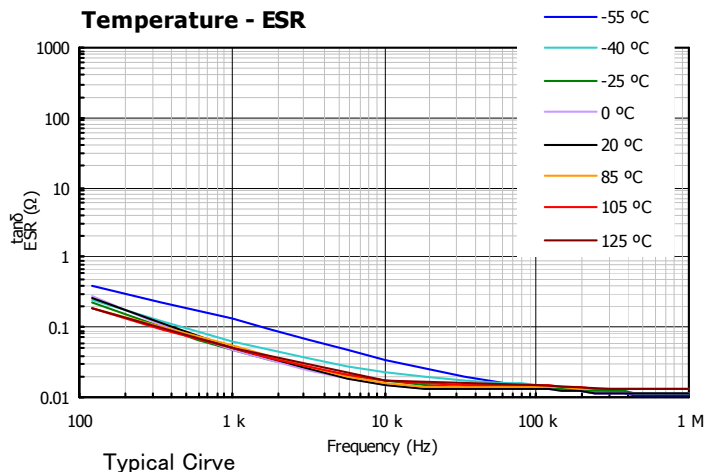
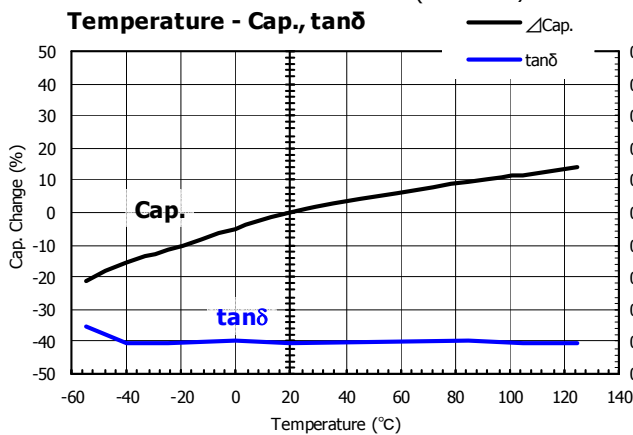
Frequency - |z|, ESR, ESL, Capacitance, $\tan \delta$ Characteristics

Osc. Level: 0.5 Vrms (at no load)



Temperature - Capacitance, $\tan \delta$, ESR Characteristics

Osc. Level: 1.0 Vrms (at no load)



Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

V type ZC series

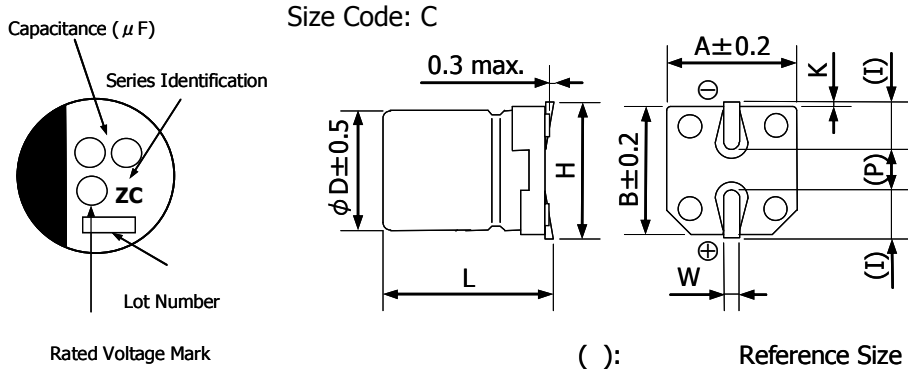
Part Number: **EEHZC1V220R**

$\phi 5.0 \times 5.8$ mm / 35 V / 22 μ F / 125 °C, 4000 h

Category Temperature Range	-55 to 125 °C
Rated W.V. Range	DC 35 V
Nominal Capacitance Range	22 μ F (at 120 Hz)
Capacitance Tolerance	± 20 %

$\tan \delta$	0.12 max. (at 120 Hz)
DC Leakage Current	7.7 μ A (0.01CV) max. (at W.V., After 2 min)
ESR	100 m Ω max. (at 100 kHz)
Ripple Current	550 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

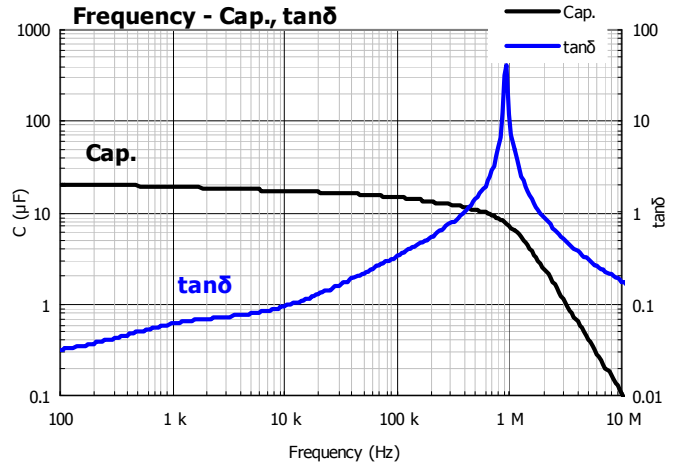
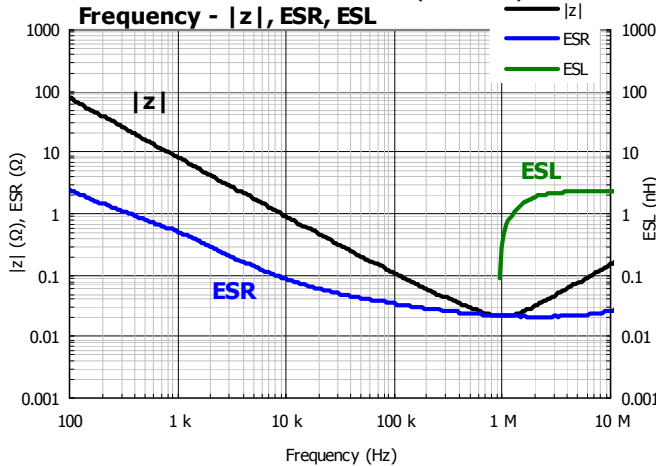
Marking, Dimensions in mm (not to scale)



	(mm)
D	5.0
L	5.8 \pm 0.3
A, B	5.3
H	6.5 max.
I	2.2
W	0.65 \pm 0.10
P	1.5
K	0.35 \pm 0.15/-0.20

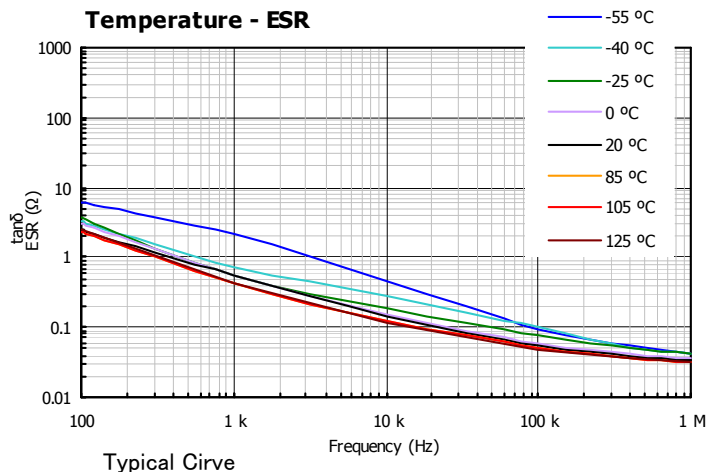
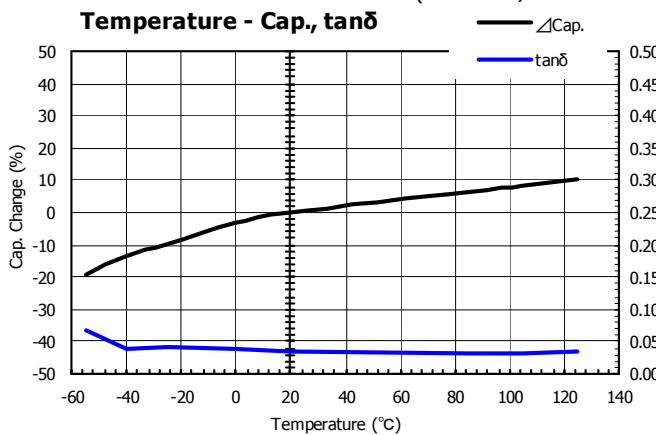
Frequency - |z|, ESR, ESL, Capacitance, $\tan \delta$ Characteristics

Osc. Level: 0.5 Vrms (at no load)



Temperature - Capacitance, $\tan \delta$, ESR Characteristics

Osc. Level: 1.0 Vrms (at no load)



Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

V type ZC series

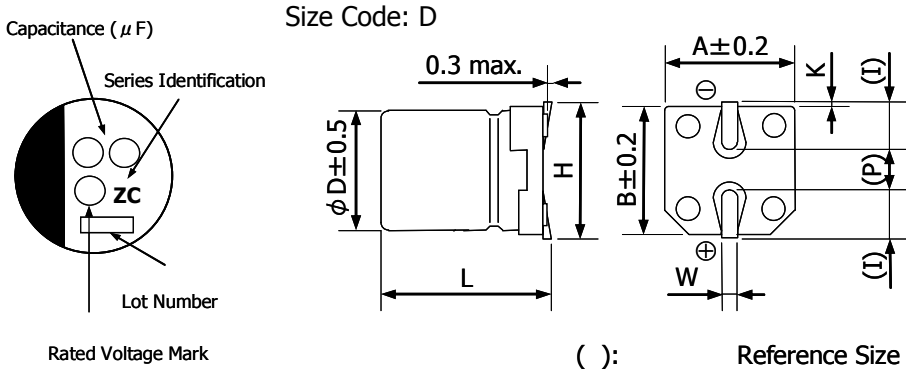
Part Number: **EEHZC1V470P**

$\phi 6.3 \times 5.8$ mm / 35 V / 47 μ F / 125 °C, 4000 h

Category Temperature Range	-55 to 125 °C
Rated W.V. Range	DC 35 V
Nominal Capacitance Range	47 μ F (at 120 Hz)
Capacitance Tolerance	± 20 %

$\tan \delta$	0.12 max. (at 120 Hz)
DC Leakage Current	16.4 μ A (0.01CV) max. (at W.V., After 2 min)
ESR	60 m Ω max. (at 100 kHz)
Ripple Current	900 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

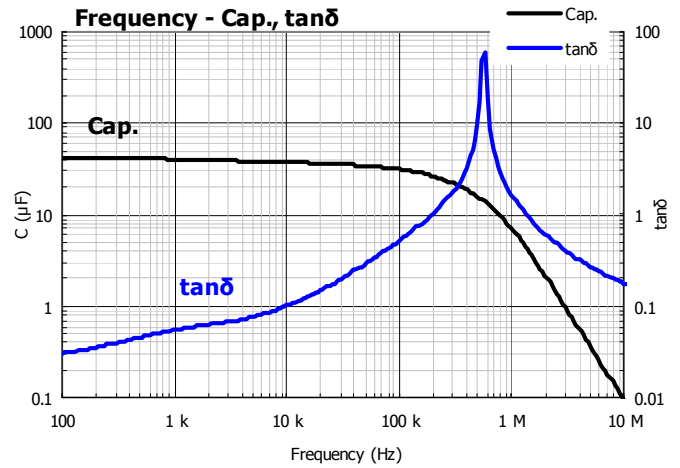
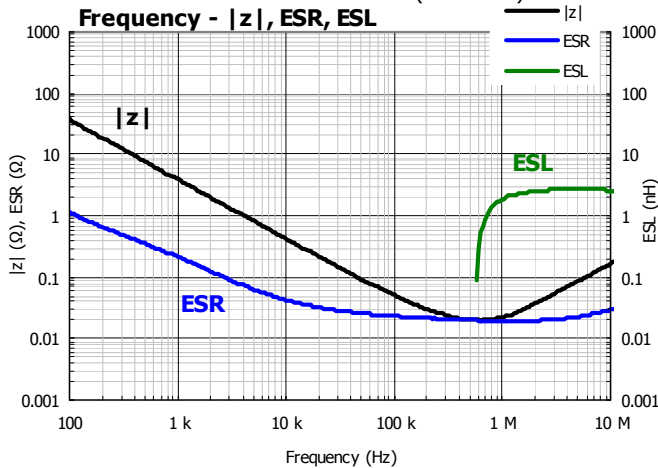
Marking, Dimensions in mm (not to scale)



	(mm)
D	6.3
L	5.8 \pm 0.3
A, B	6.6
H	7.8 max.
I	2.6
W	0.65 \pm 0.10
P	1.8
K	0.35 \pm 0.15/-0.20

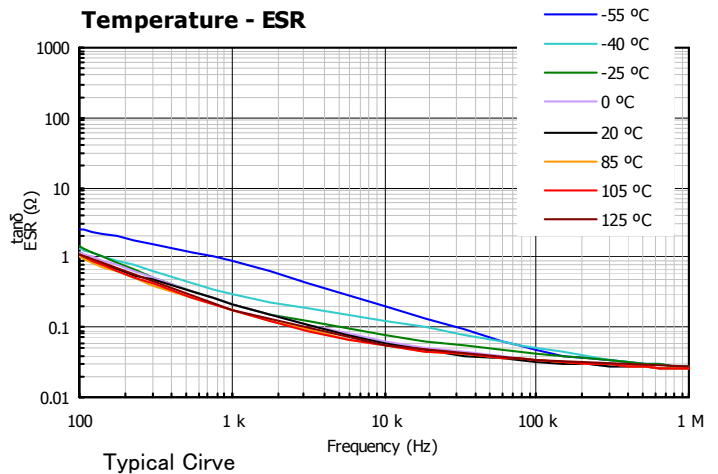
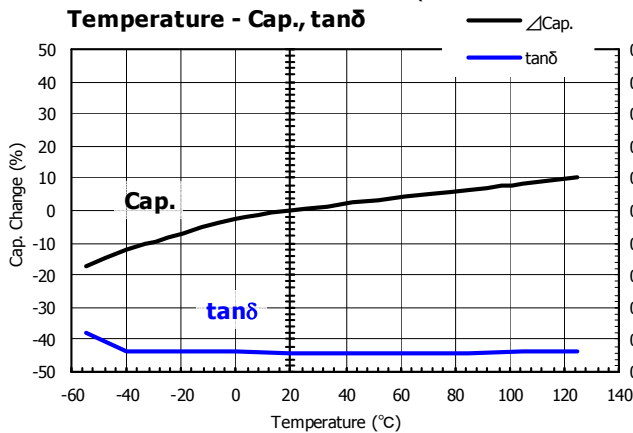
Frequency - $|z|$, ESR, ESL, Capacitance, $\tan \delta$ Characteristics

Osc. Level: 0.5 Vrms (at no load)



Temperature - Capacitance, $\tan \delta$, ESR Characteristics

Osc. Level: 1.0 Vrms (at no load)



Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

V type ZC series

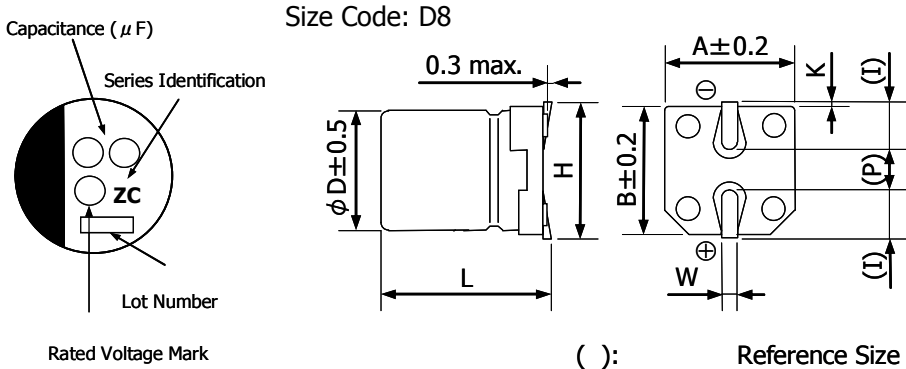
Part Number: **EEHZC1V680XP**

$\phi 6.3 \times 7.7$ mm / 35 V / 68 μ F / 125 °C, 4000 h

Category Temperature Range	-55 to 125 °C
Rated W.V. Range	DC 35 V
Nominal Capacitance Range	68 μ F (at 120 Hz)
Capacitance Tolerance	± 20 %

$\tan \delta$	0.12 max. (at 120 Hz)
DC Leakage Current	23.8 μ A (0.01CV) max. (at W.V., After 2 min)
ESR	35 m Ω max. (at 100 kHz)
Ripple Current	1400 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

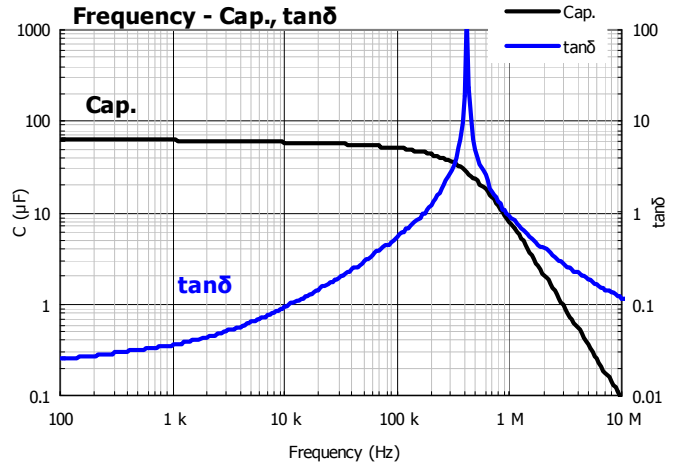
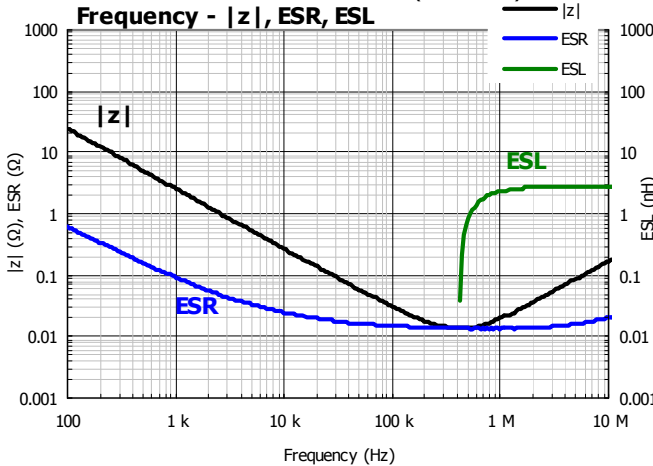
Marking, Dimensions in mm (not to scale)



	(mm)
D	6.3
L	7.7 \pm 0.3
A, B	6.6
H	7.8 max.
I	2.6
W	0.65 \pm 0.10
P	1.8
K	0.35+0.15/-0.20

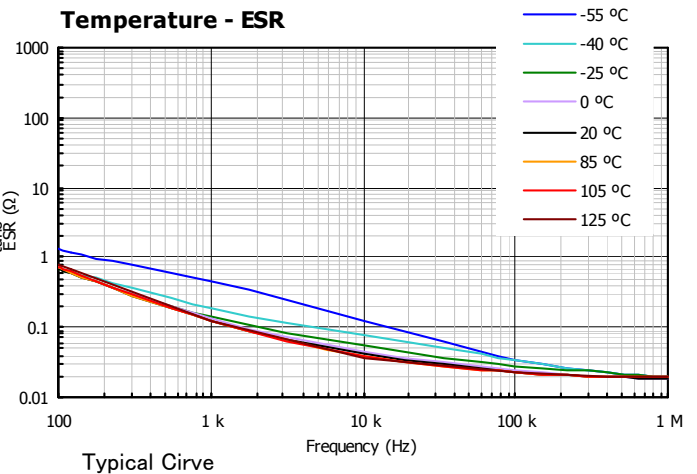
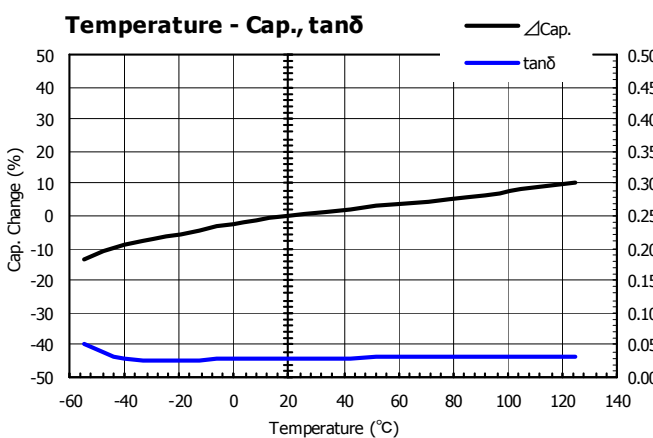
Frequency - $|z|$, ESR, ESL, Capacitance, $\tan \delta$ Characteristics

Osc. Level: 0.5 Vrms (at no load)



Temperature - Capacitance, $\tan \delta$, ESR Characteristics

Osc. Level: 1.0 Vrms (at no load)



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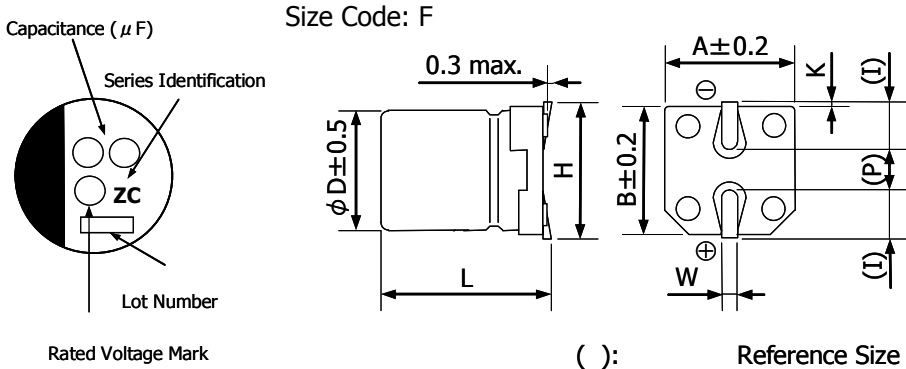
Part Number: **EEHZC1V151P**

φ8.0×10.2 mm / 35 V / 150 μF / 125 °C, 4000 h

Category Temperature Range	-55 to 125 °C
Rated W.V. Range	DC 35 V
Nominal Capacitance Range	150 μF (at 120 Hz)
Capacitance Tolerance	±20 %

tanδ	0.12 max. (at 120 Hz)
DC Leakage Current	52.5 μA (0.01CV) max. (at W.V., After 2 min)
ESR	27 mΩ max. (at 100 kHz)
Ripple Current	1600 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

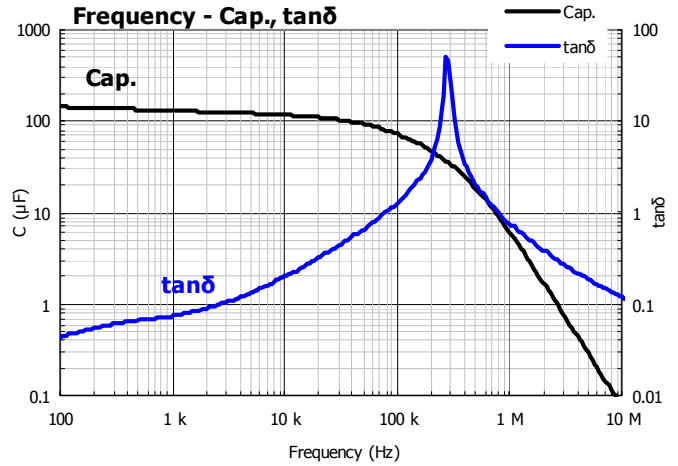
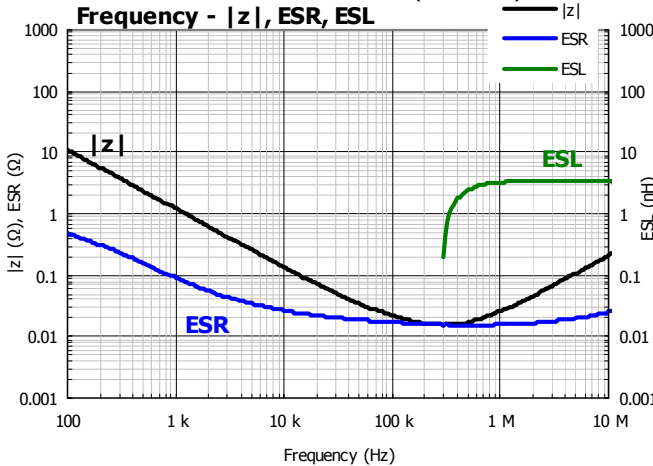
Marking, Dimensions in mm (not to scale)



	(mm)
D	8.0
L	10.2±0.3
A, B	8.3
H	10.0 max.
I	3.4
W	0.9±0.2
P	3.1
K	0.7±0.2

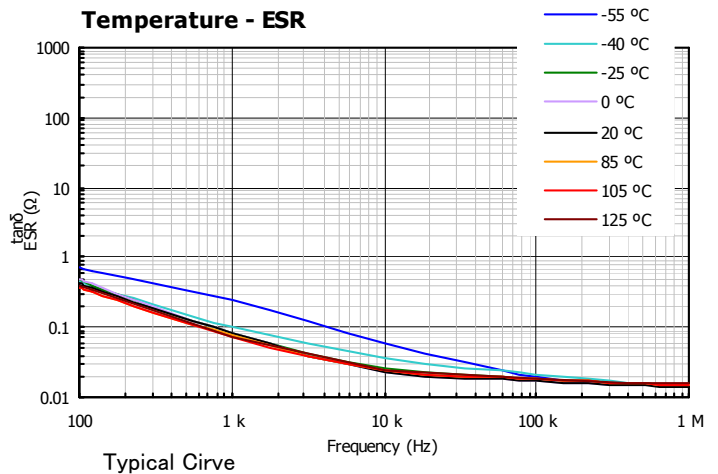
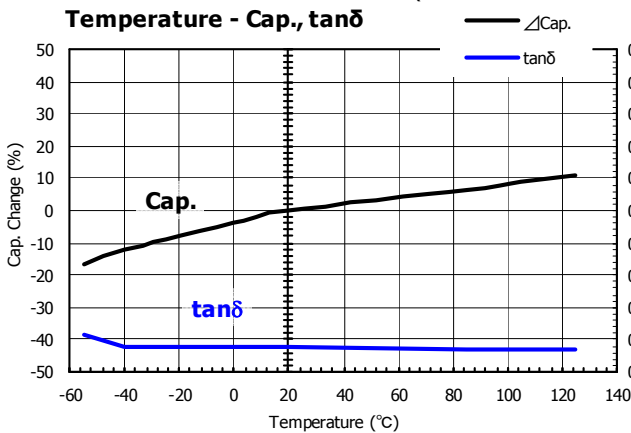
Frequency - |z|, ESR, ESL, Capacitance, tanδ Characteristics

Osc. Level: 0.5 Vrms (at no load)



Temperature - Capacitance, tanδ, ESR Characteristics

Osc. Level: 1.0 Vrms (at no load)



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Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

V type ZC series

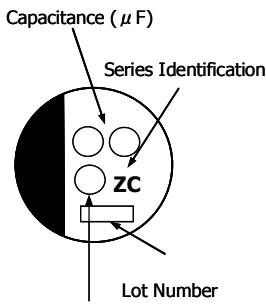
Part Number: **EEHZC1V271P**

$\phi 10.0 \times 10.2$ mm / 35 V / 270 μ F / 125 °C, 4000 h

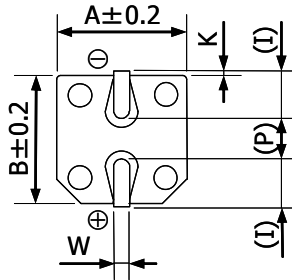
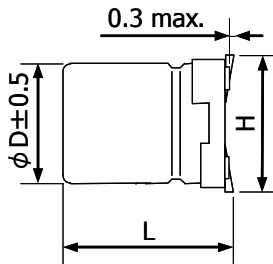
Category Temperature Range	-55 to 125 °C
Rated W.V. Range	DC 35 V
Nominal Capacitance Range	270 μ F (at 120 Hz)
Capacitance Tolerance	± 20 %

$\tan \delta$	0.12 max. (at 120 Hz)
DC Leakage Current	94.5 μ A (0.01CV) max. (at W.V., After 2 min)
ESR	20 m Ω max. (at 100 kHz)
Ripple Current	2000 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

Marking, Dimensions in mm (not to scale)



Size Code: G



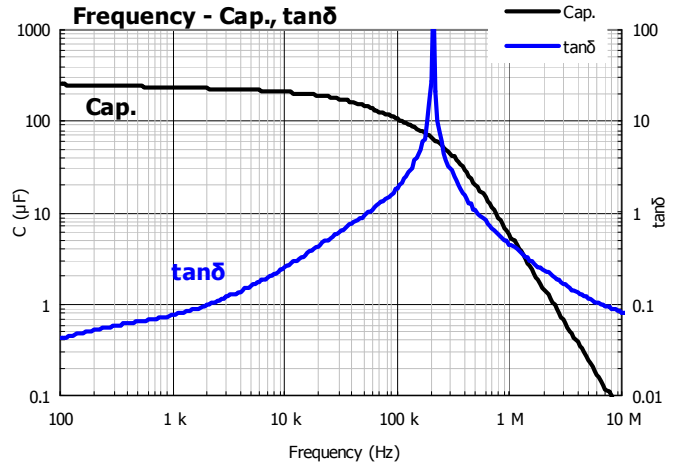
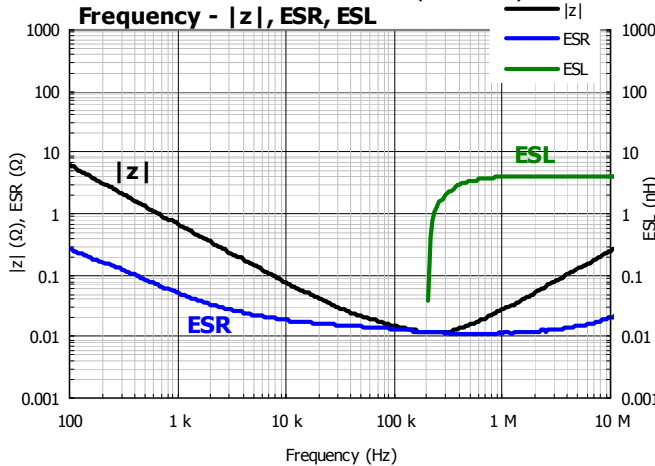
	(mm)
D	10.0
L	10.2 \pm 0.3
A, B	10.3
H	12.0 max.
I	3.5
W	0.9 \pm 0.2
P	4.6
K	0.7 \pm 0.2

Rated Voltage Mark

(): Reference Size

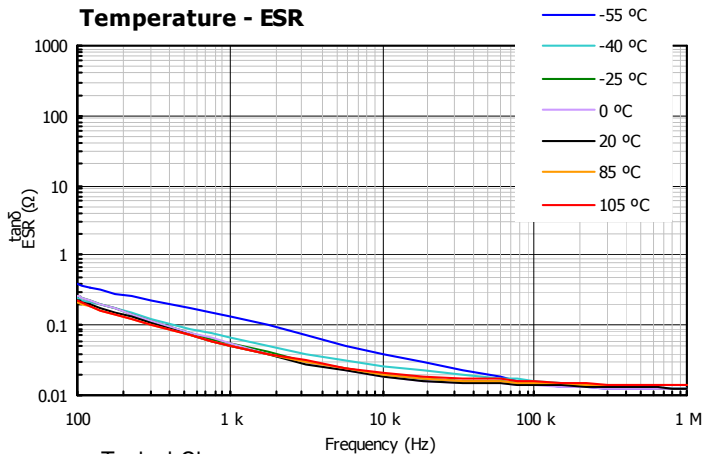
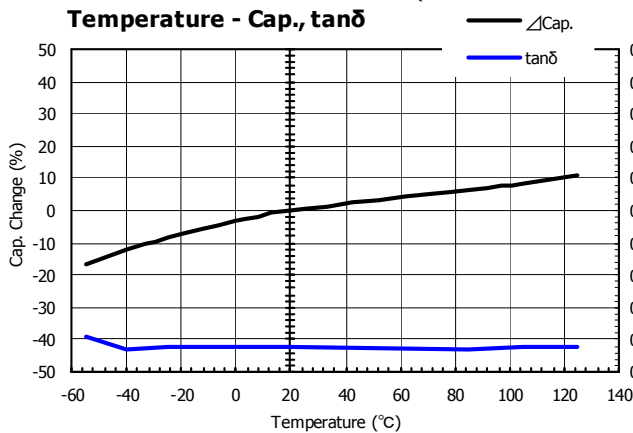
Frequency - $|z|$, ESR, ESL, Capacitance, $\tan \delta$ Characteristics

Osc. Level: 0.5 Vrms (at no load)



Temperature - Capacitance, $\tan \delta$, ESR Characteristics

Osc. Level: 1.0 Vrms (at no load)



Typical Curve

Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

V type ZC series

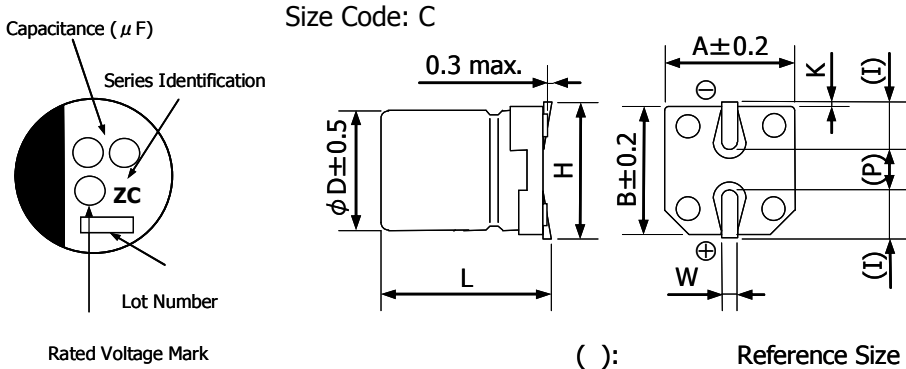
Part Number: **EEHZC1H100R**

$\phi 5.0 \times 5.8$ mm / 50 V / 10 μ F / 125 °C, 4000 h

Category Temperature Range	-55 to 125 °C
Rated W.V. Range	DC 50 V
Nominal Capacitance Range	10 μ F (at 120 Hz)
Capacitance Tolerance	± 20 %

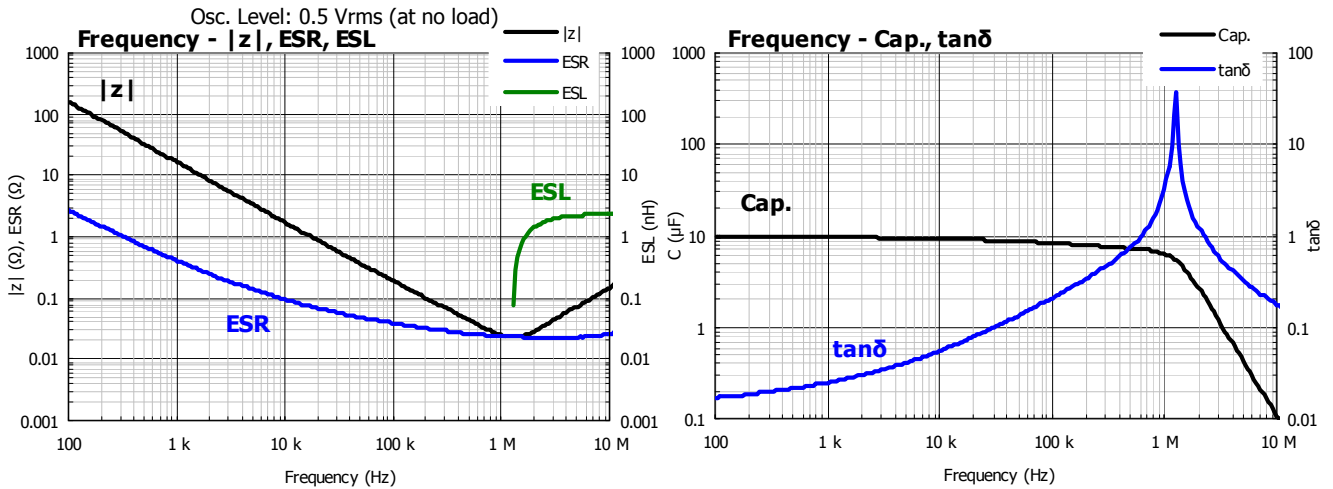
$\tan \delta$	0.1 max. (at 120 Hz)
DC Leakage Current	5 μ A (0.01CV) max. (at W.V., After 2 min)
ESR	120 m Ω max. (at 100 kHz)
Ripple Current	500 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

Marking, Dimensions in mm (not to scale)

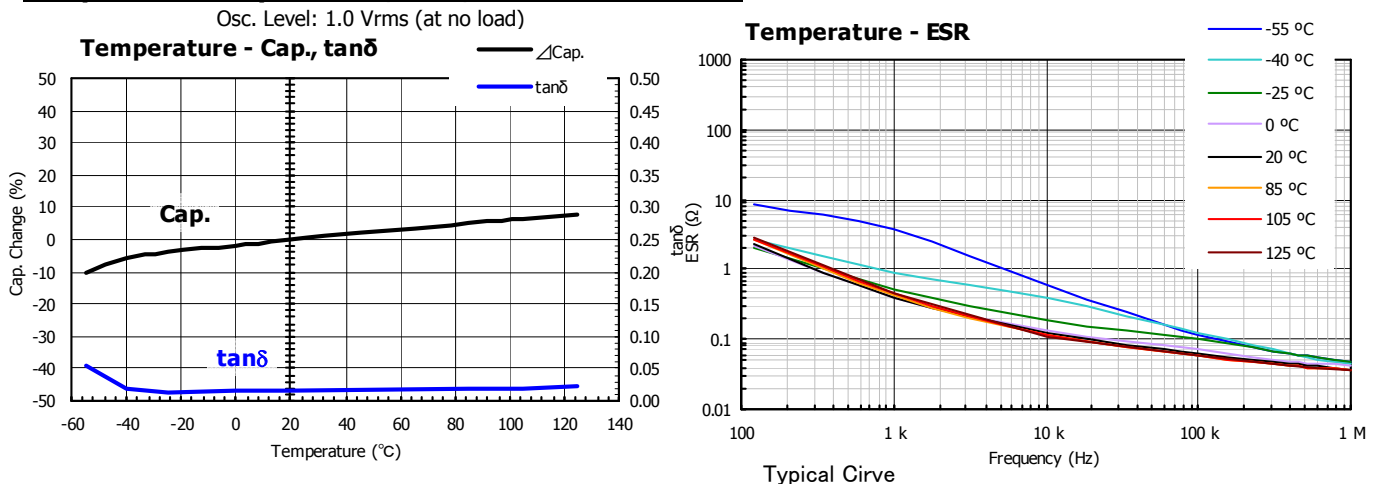


	(mm)
D	5.0
L	5.8 \pm 0.3
A, B	5.3
H	6.5 max.
I	2.2
W	0.65 \pm 0.10
P	1.5
K	0.35 \pm 0.15/-0.20

Frequency - |z|, ESR, ESL, Capacitance, $\tan \delta$ Characteristics



Temperature - Capacitance, $\tan \delta$, ESR Characteristics



Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

V type ZC series

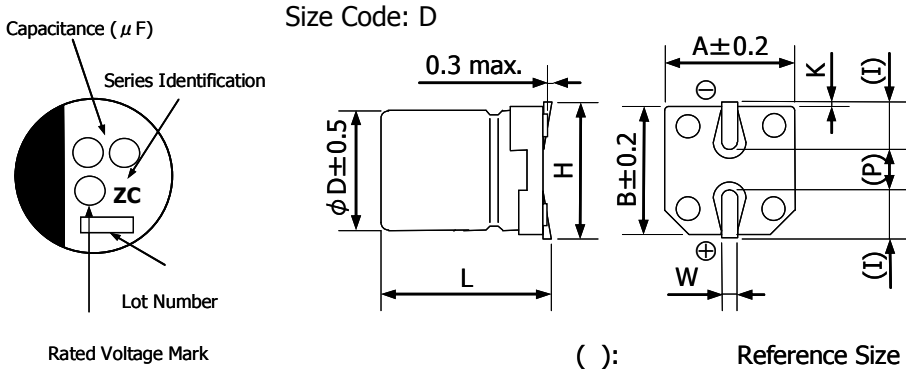
Part Number: **EEHZC1H220P**

$\phi 6.3 \times 5.8$ mm / 50 V / 22 μ F / 125 °C, 4000 h

Category Temperature Range	-55 to 125 °C
Rated W.V. Range	DC 50 V
Nominal Capacitance Range	22 μ F (at 120 Hz)
Capacitance Tolerance	± 20 %

$\tan \delta$	0.10 max. (at 120 Hz)
DC Leakage Current	11 μ A (0.01CV) max. (at W.V., After 2 min)
ESR	80 m Ω max. (at 100 kHz)
Ripple Current	750 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

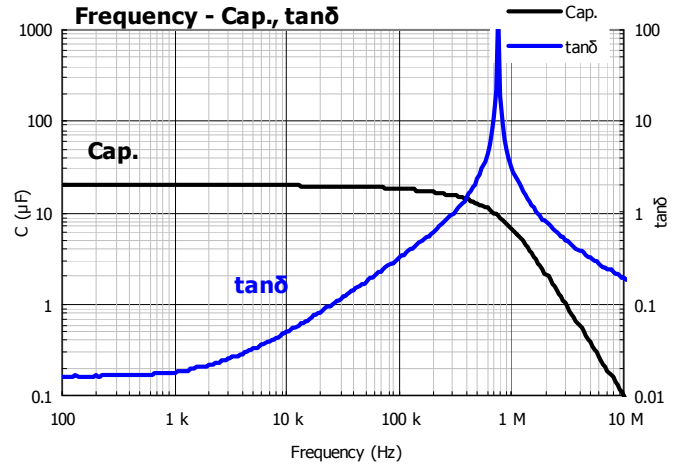
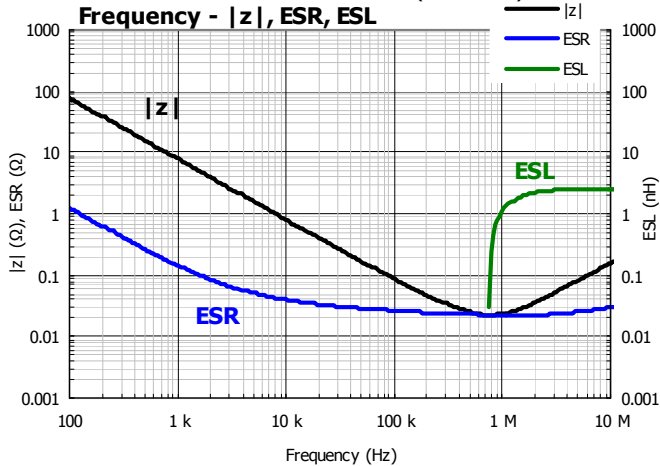
Marking, Dimensions in mm (not to scale)



	(mm)
D	6.3
L	5.8 \pm 0.3
A, B	6.6
H	7.8 max.
I	2.6
W	0.65 \pm 0.10
P	1.8
K	0.35 \pm 0.15/-0.20

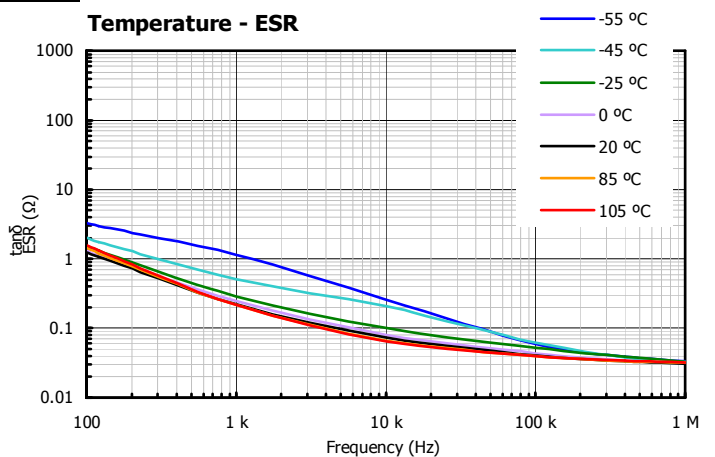
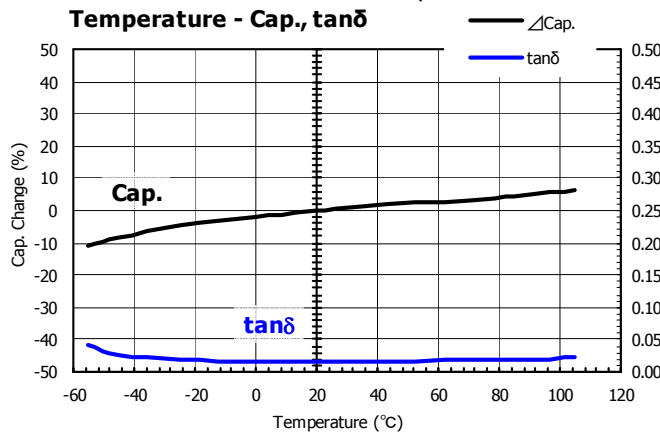
Frequency - $|z|$, ESR, ESL, Capacitance, $\tan \delta$ Characteristics

Osc. Level: 0.5 Vrms (at no load)



Temperature - Capacitance, $\tan \delta$, ESR Characteristics

Osc. Level: 1.0 Vrms (at no load)



Typical Curve

Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

V type ZC series

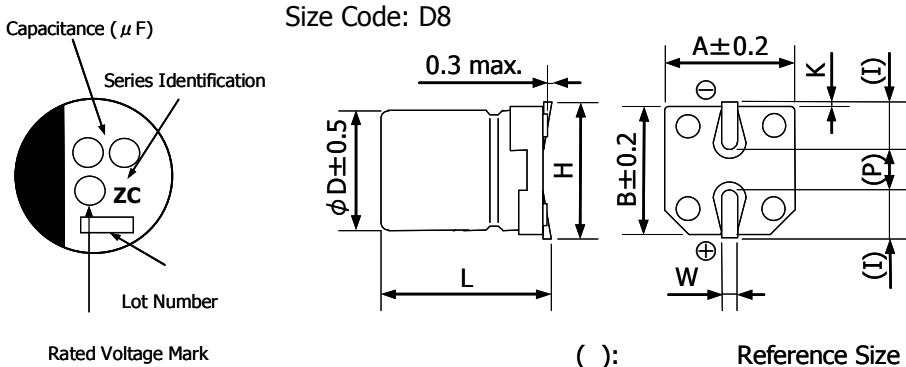
Part Number: **EEHZC1H330XP**

$\phi 6.3 \times 7.7$ mm / 50 V / 33 μ F / 125 °C, 4000 h

Category Temperature Range	-55 to 125 °C
Rated W.V. Range	DC 50 V
Nominal Capacitance Range	33 μ F (at 120 Hz)
Capacitance Tolerance	± 20 %

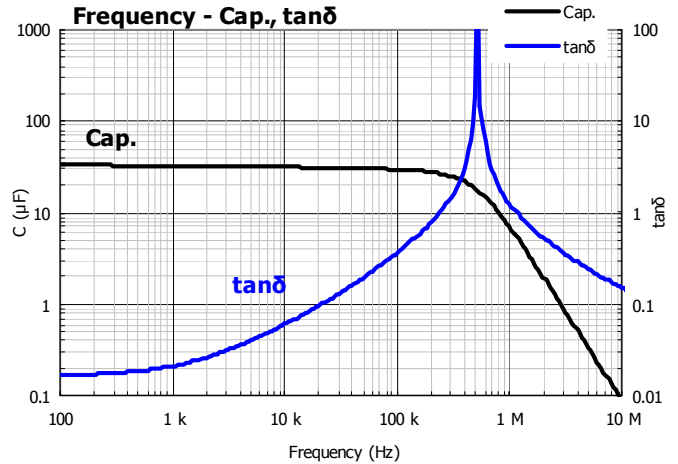
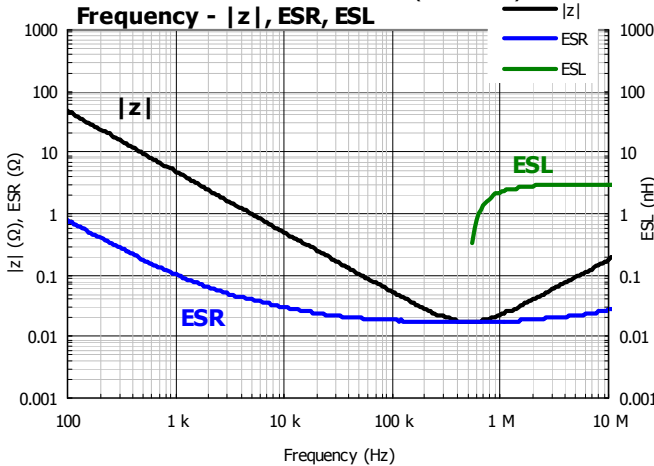
$\tan \delta$	0.10 max. (at 120 Hz)
DC Leakage Current	16.5 μ A (0.01CV) max. (at W.V., After 2 min)
ESR	40 m Ω max. (at 100 kHz)
Ripple Current	1100 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

Marking, Dimensions in mm (not to scale)



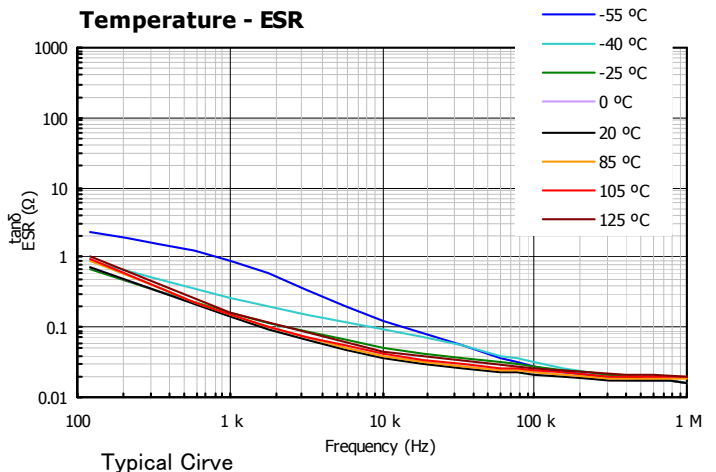
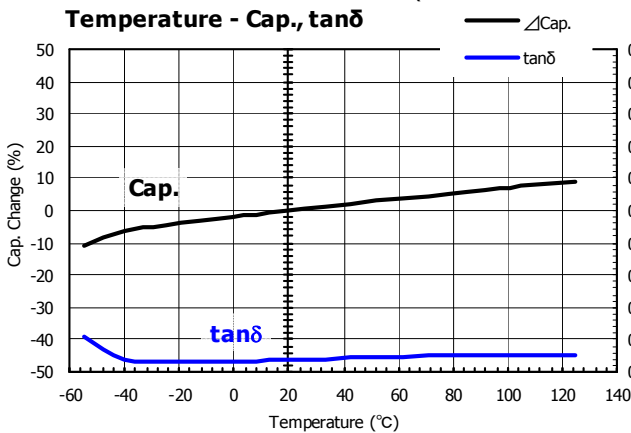
Frequency - |z|, ESR, ESL, Capacitance, $\tan \delta$ Characteristics

Osc. Level: 0.5 Vrms (at no load)



Temperature - Capacitance, $\tan \delta$, ESR Characteristics

Osc. Level: 1.0 Vrms (at no load)



Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

V type ZC series

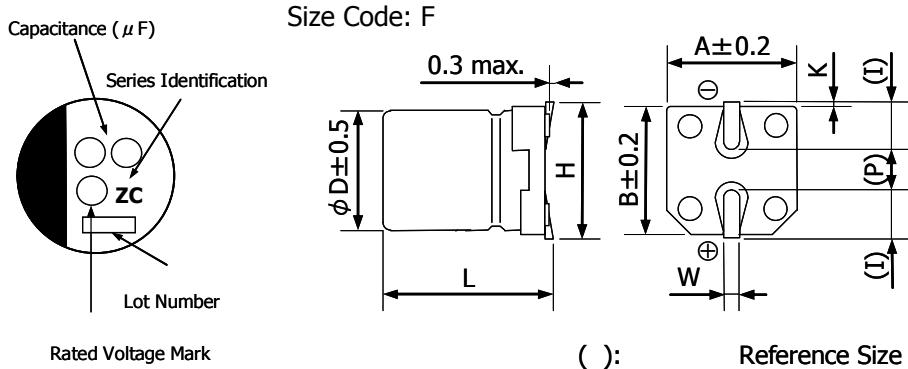
Part Number: **EEHZC1H680P**

φ8.0×10.2 mm / 50 V / 68 μF / 125 °C, 4000 h

Category Temperature Range	-55 to 125 °C
Rated W.V. Range	DC 50 V
Nominal Capacitance Range	68 μF (at 120 Hz)
Capacitance Tolerance	±20 %

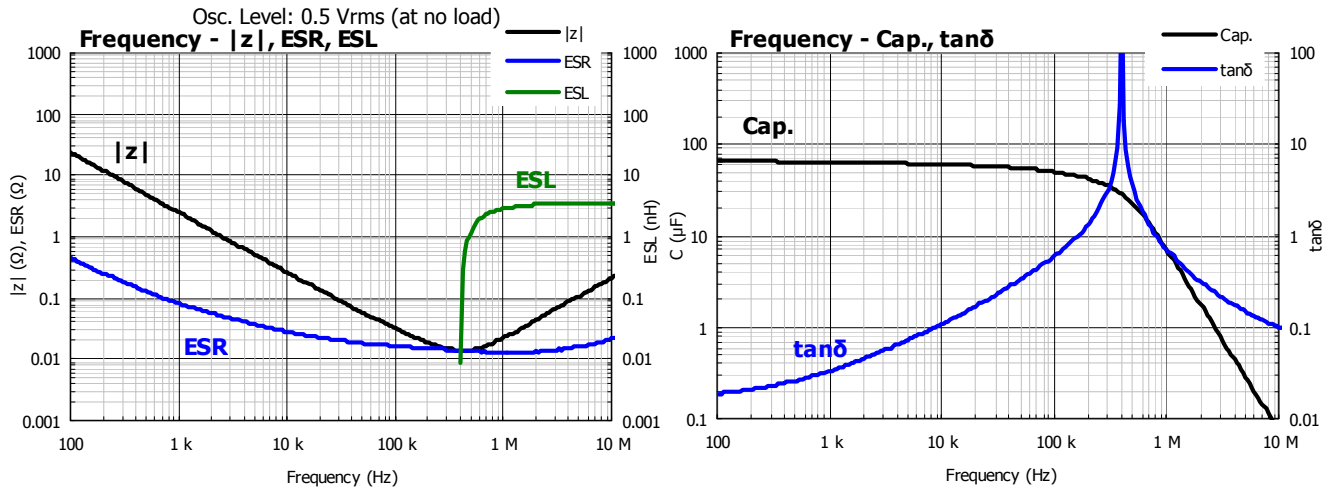
tanδ	0.1 max. (at 120 Hz)
DC Leakage Current	34 μA (0.01CV) max. (at W.V., After 2 min)
ESR	30 mΩ max. (at 100 kHz)
Ripple Current	1250 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

Marking, Dimensions in mm (not to scale)

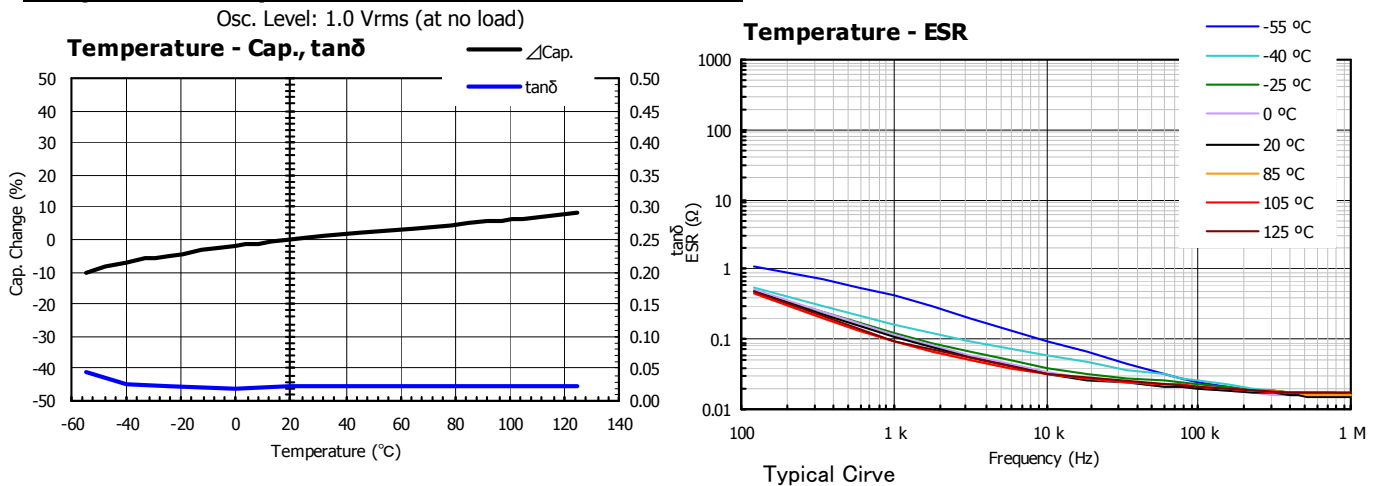


	(mm)
D	8.0
L	10.2±0.3
A, B	8.3
H	10.0 max.
I	3.4
W	0.9±0.2
P	3.1
K	0.7±0.2

Frequency - |z|, ESR, ESL, Capacitance, tanδ Characteristics



Temperature - Capacitance, tanδ, ESR Characteristics



Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

V type ZC series

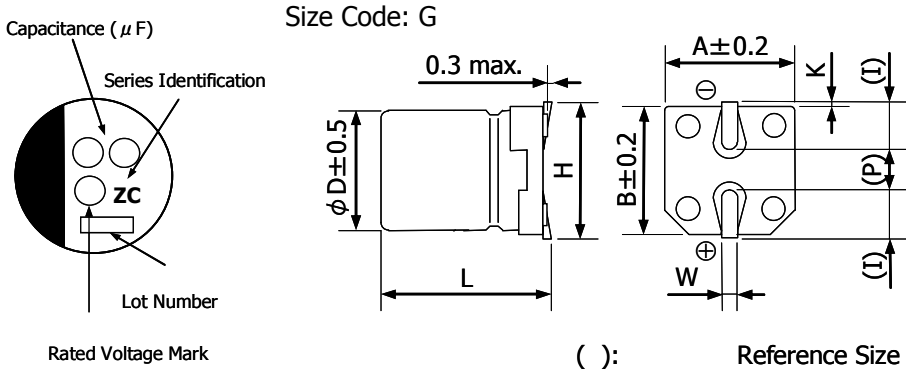
Part Number: **EEHZC1H101P**

$\phi 10.0 \times 10.2$ mm / 50 V / 100 μ F / 125 °C, 4000 h

Category Temperature Range	-55 to 125 °C
Rated W.V. Range	DC 50 V
Nominal Capacitance Range	100 μ F (at 120 Hz)
Capacitance Tolerance	± 20 %

$\tan \delta$	0.1 max. (at 120 Hz)
DC Leakage Current	50 μ A (0.01CV) max. (at W.V., After 2 min)
ESR	28 m Ω max. (at 100 kHz)
Ripple Current	1600 mArms max. (at 100 kHz, 105 °C)
Endurance	125 °C, 4000 h

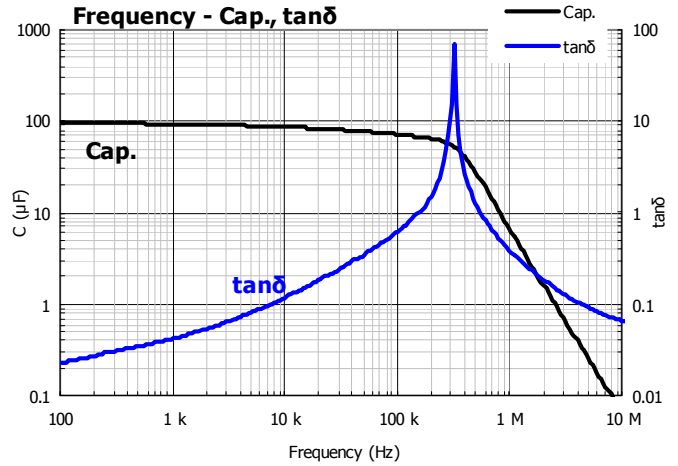
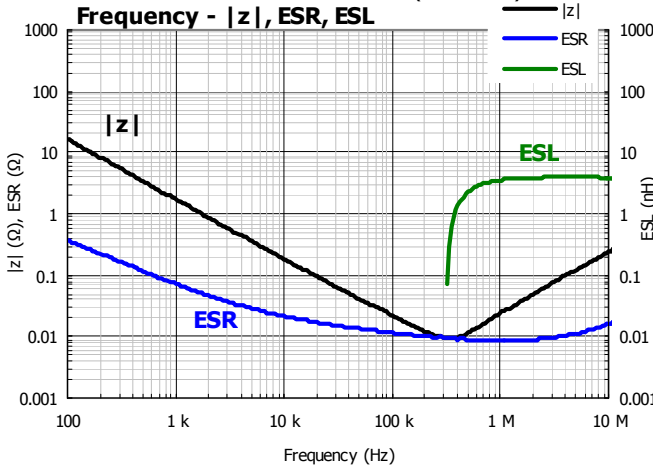
Marking, Dimensions in mm (not to scale)



	(mm)
D	10.0
L	10.2 \pm 0.3
A, B	10.3
H	12.0 max.
I	3.5
W	0.9 \pm 0.2
P	4.6
K	0.7 \pm 0.2

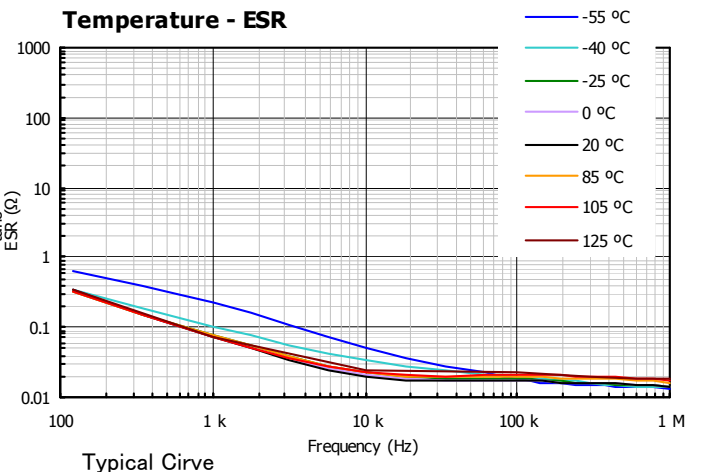
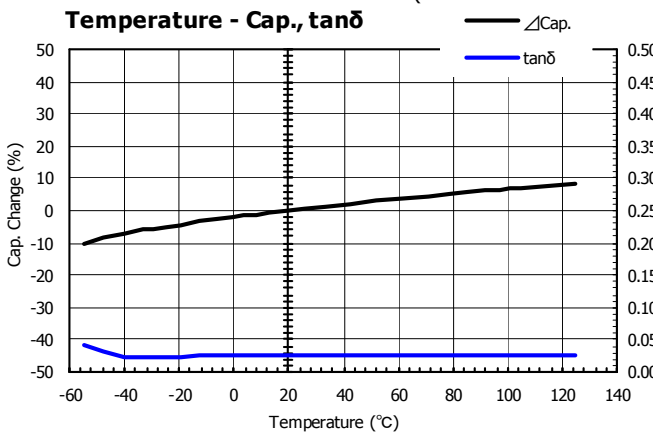
Frequency - |z|, ESR, ESL, Capacitance, $\tan \delta$ Characteristics

Osc. Level: 0.5 Vrms (at no load)



Temperature - Capacitance, $\tan \delta$, ESR Characteristics

Osc. Level: 1.0 Vrms (at no load)



Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

V type ZC series

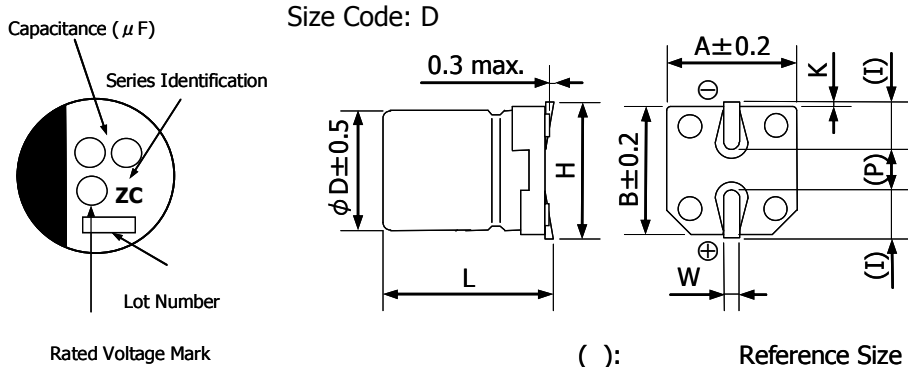
Part Number: **EEHZC1J100P**

$\phi 6.3 \times 5.8$ mm / 63 V / 10 μ F / 125 °C, 4000 h

Category Temperature Range	-55 to 125 °C
Rated W.V. Range	DC 63 V
Nominal Capacitance Range	10 μ F (at 120 Hz)
Capacitance Tolerance	± 20 %

$\tan \delta$	0.08 max. (at 120 Hz)
DC Leakage Current	6.3 μ A (0.01CV) max. (at W.V., After 2 min)
ESR	120 m Ω max. (at 100 kHz)
Ripple Current	700 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

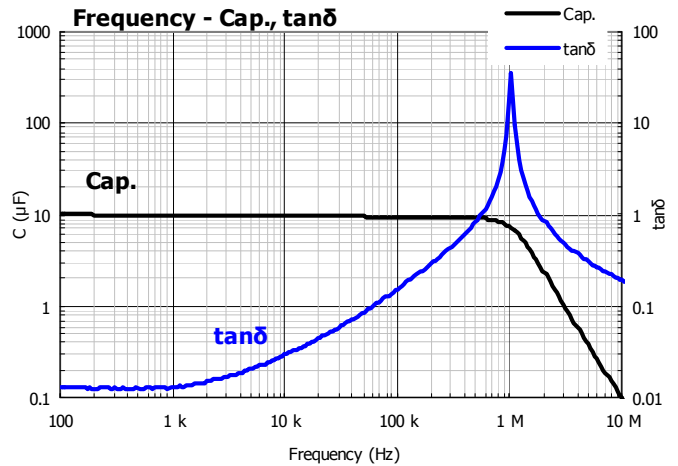
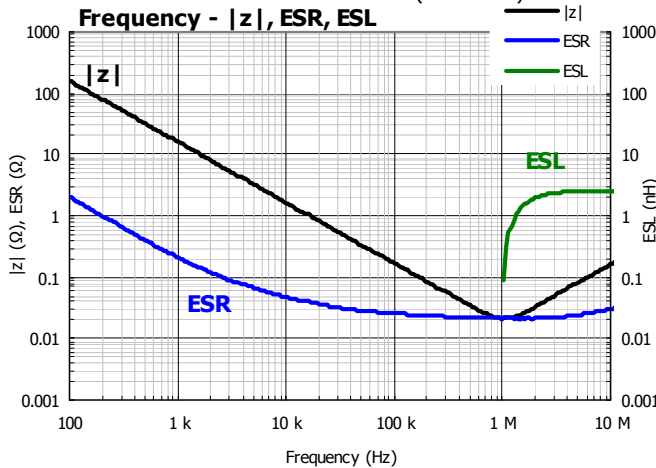
Marking, Dimensions in mm (not to scale)



	(mm)
D	6.3
L	5.8 \pm 0.3
A, B	6.6
H	7.8 max.
I	2.6
W	0.65 \pm 0.10
P	1.8
K	0.35 \pm 0.15/-0.20

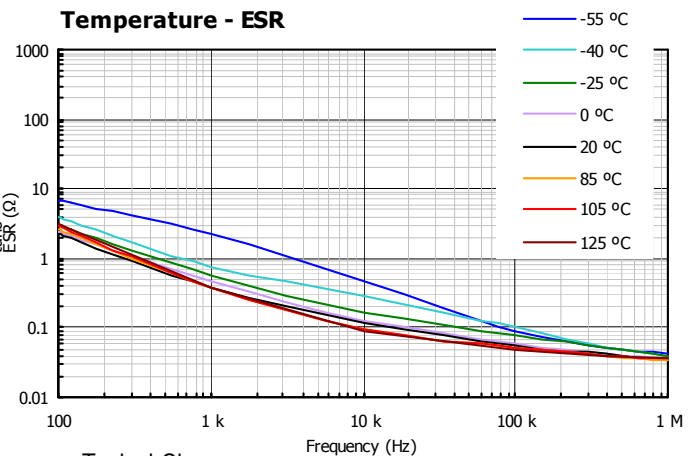
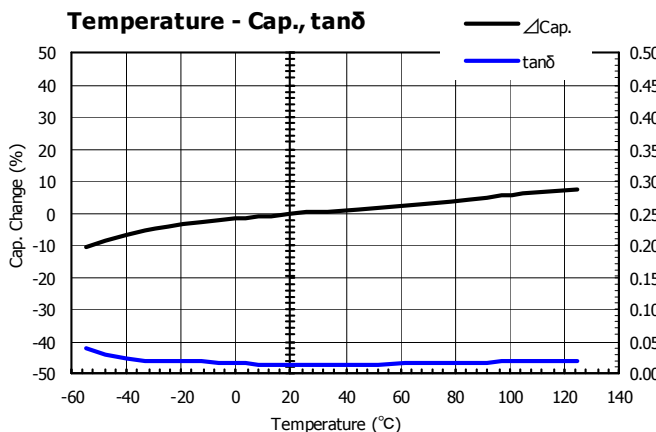
Frequency - $|z|$, ESR, ESL, Capacitance, $\tan \delta$ Characteristics

Osc. Level: 0.5 Vrms (at no load)



Temperature - Capacitance, $\tan \delta$, ESR Characteristics

Osc. Level: 1.0 Vrms (at no load)



Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

V type ZC series

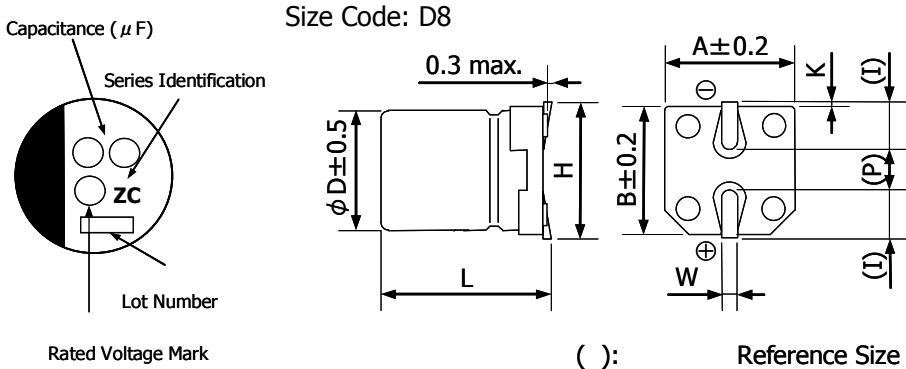
Part Number: EEHZC1J220XP

φ6.3×7.7 mm / 63 V / 22 μF / 125 °C, 4000 h

Category Temperature Range	-55 to 125 °C
Rated W.V. Range	DC 63 V
Nominal Capacitance Range	22 μF (at 120 Hz)
Capacitance Tolerance	±20 %

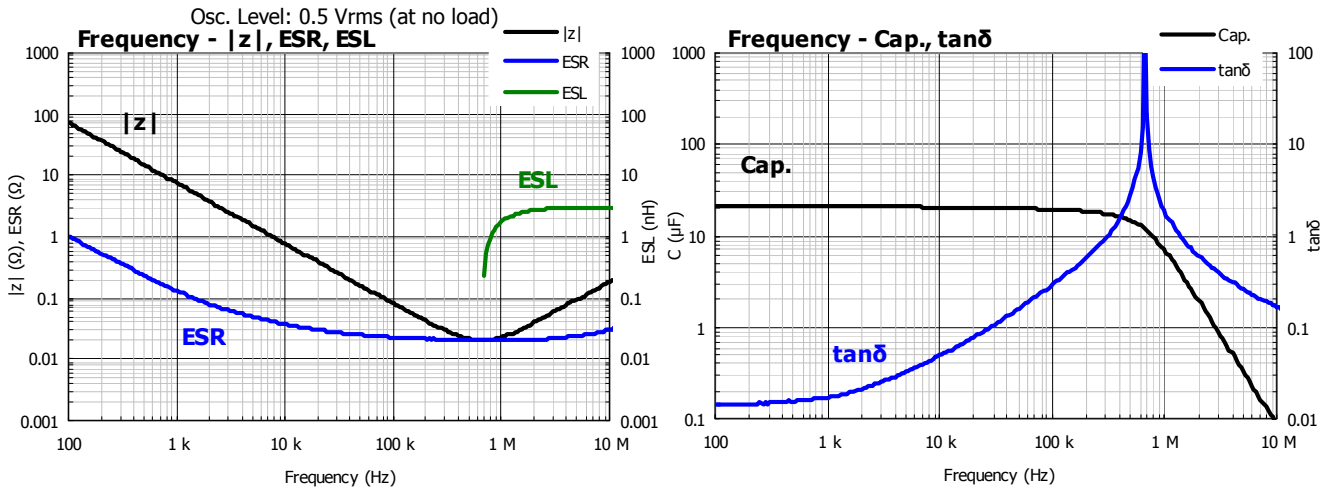
tanδ	0.08 max. (at 120 Hz)
DC Leakage Current	13.8 μA (0.01CV) max. (at W.V., After 2 min)
ESR	80 mΩ max. (at 100 kHz)
Ripple Current	900 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

Marking, Dimensions in mm (not to scale)

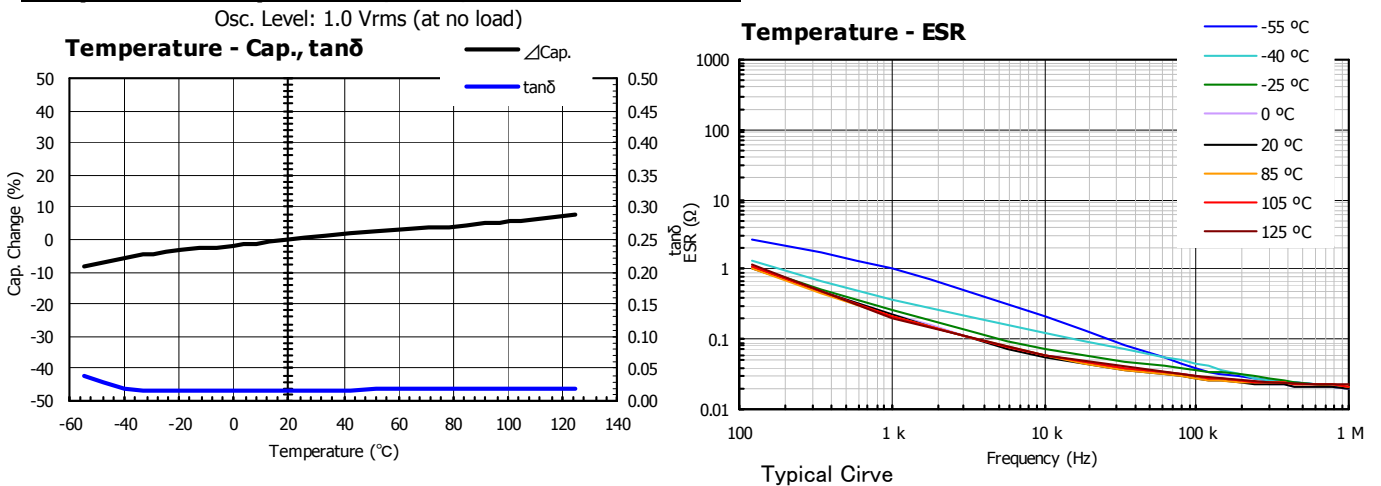


	(mm)
D	6.3
L	7.7±0.3
A, B	6.6
H	7.8 max.
I	2.6
W	0.65±0.10
P	1.8
K	0.35+0.15/-0.20

Frequency - |z|, ESR, ESL, Capacitance, tanδ Characteristics



Temperature - Capacitance, tanδ, ESR Characteristics



Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

V type ZC series

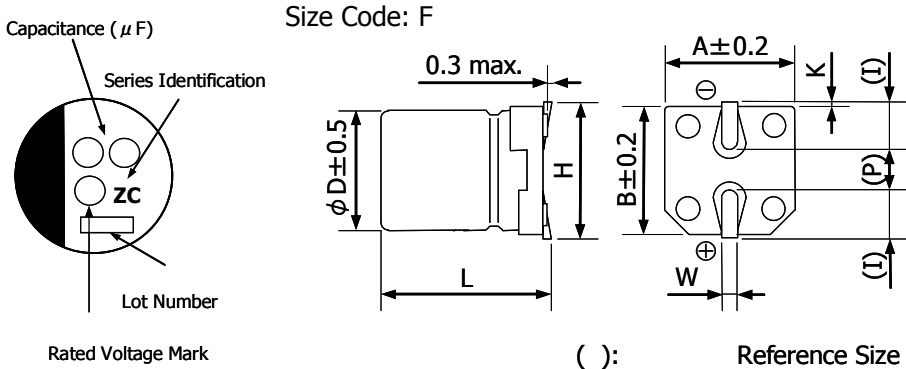
Part Number: **EEHZC1J330P**

$\phi 8.0 \times 10.2$ mm / 63 V / 33 μ F / 125 °C, 4000 h

Category Temperature Range	-55 to 125 °C
Rated W.V. Range	DC 63 V
Nominal Capacitance Range	33 μ F (at 120 Hz)
Capacitance Tolerance	± 20 %

$\tan \delta$	0.08 max. (at 120 Hz)
DC Leakage Current	20.7 μ A (0.01CV) max. (at W.V., After 2 min)
ESR	40 m Ω max. (at 100 kHz)
Ripple Current	1100 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

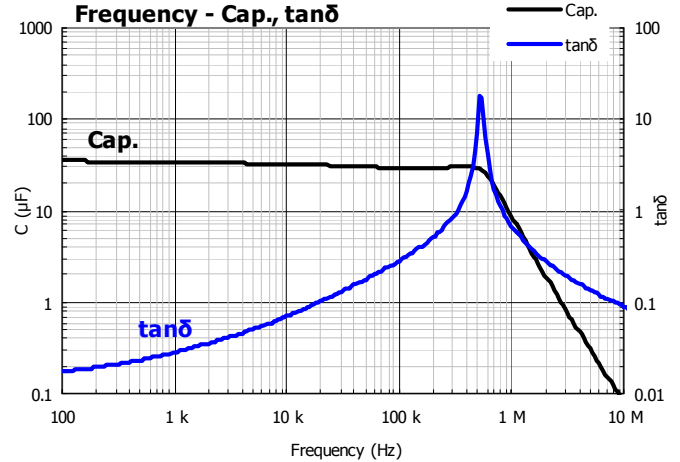
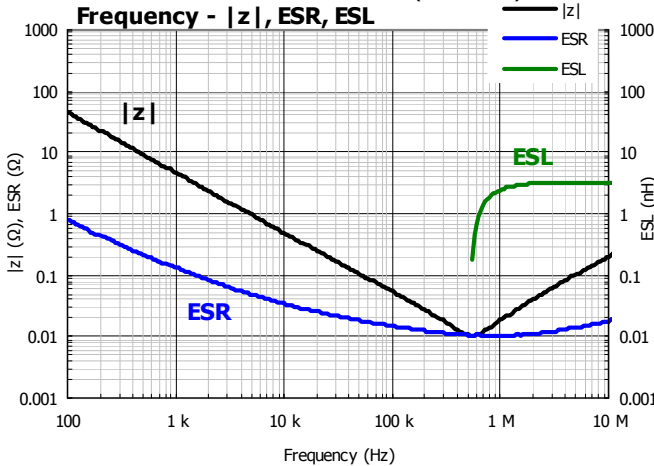
Marking, Dimensions in mm (not to scale)



	(mm)
D	8.0
L	10.2 \pm 0.3
A, B	8.3
H	10.0 max.
I	3.4
W	0.9 \pm 0.2
P	3.1
K	0.7 \pm 0.2

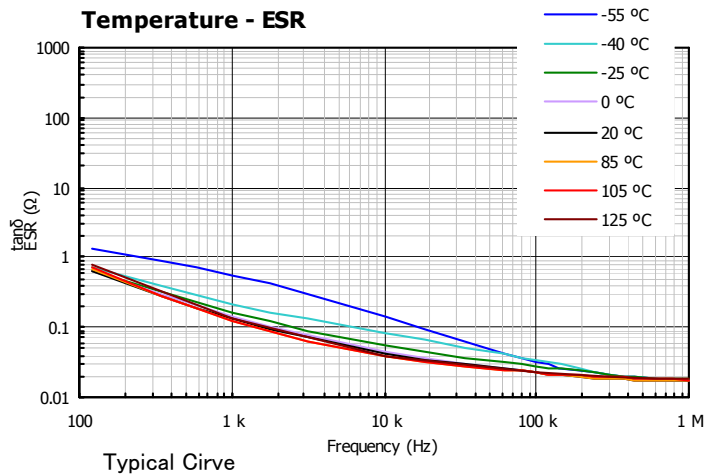
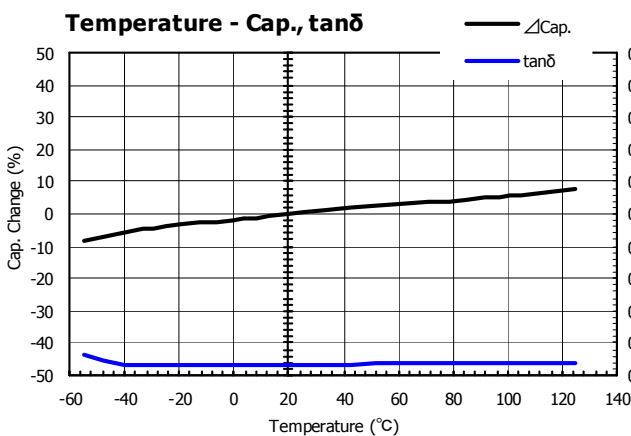
Frequency - |z|, ESR, ESL, Capacitance, $\tan \delta$ Characteristics

Osc. Level: 0.5 Vrms (at no load)



Temperature - Capacitance, $\tan \delta$, ESR Characteristics

Osc. Level: 1.0 Vrms (at no load)



Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

V type ZC series

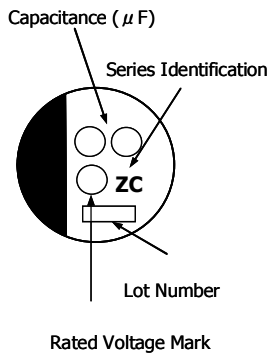
Part Number: **EEHZC1J560P**

$\phi 10.0 \times 10.2$ mm / 63 V / 56 μ F / 125 °C, 4000 h

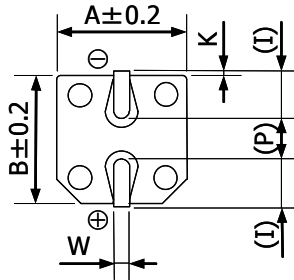
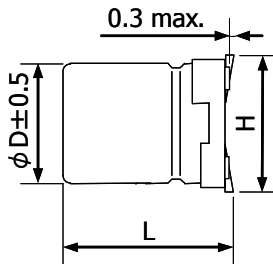
Category Temperature Range	-55 to 125 °C
Rated W.V. Range	DC 63 V
Nominal Capacitance Range	56 μ F (at 120 Hz)
Capacitance Tolerance	± 20 %

$\tan \delta$	0.08 max. (at 120 Hz)
DC Leakage Current	35.2 μ A (0.01CV) max. (at W.V., After 2 min)
ESR	30 m Ω max. (at 100 kHz)
Ripple Current	1400 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

Marking, Dimensions in mm (not to scale)



Size Code: G

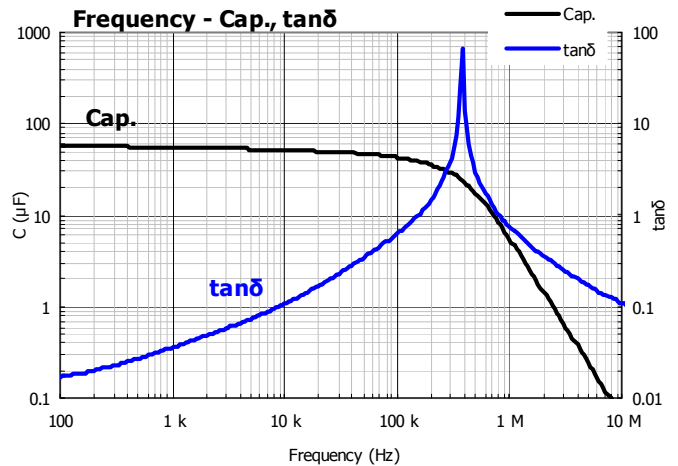
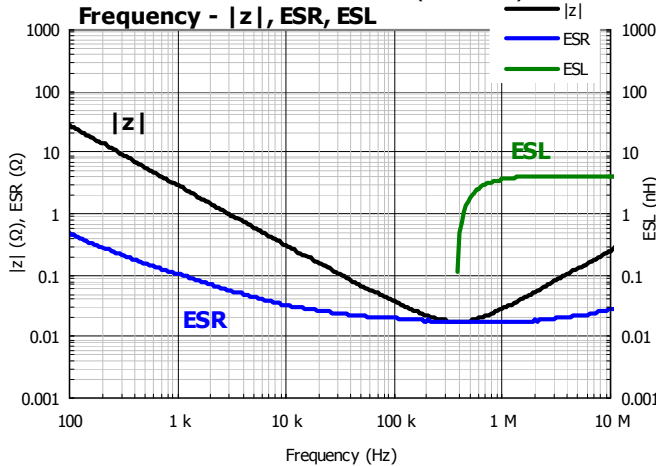


	(mm)
D	10.0
L	10.2 \pm 0.3
A, B	10.3
H	12.0 max.
I	3.5
W	0.9 \pm 0.2
P	4.6
K	0.7 \pm 0.2

(): Reference Size

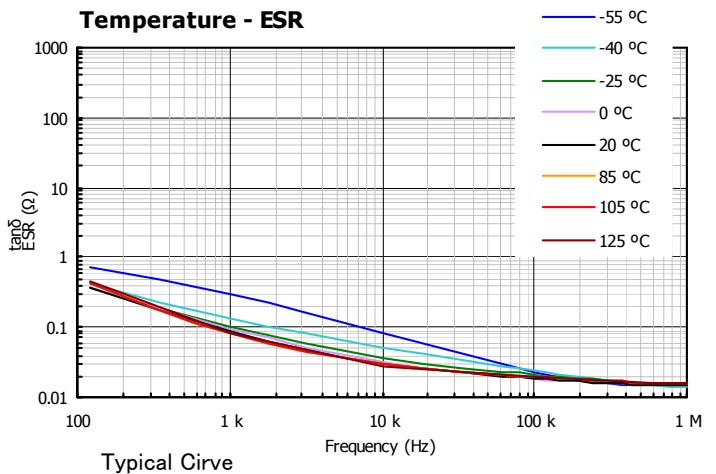
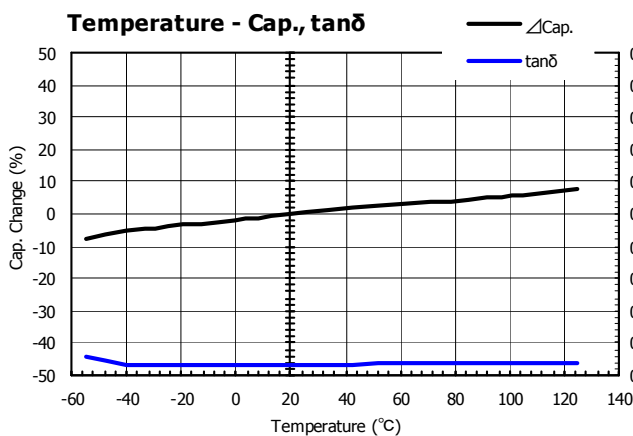
Frequency - |z|, ESR, ESL, Capacitance, $\tan \delta$ Characteristics

Osc. Level: 0.5 Vrms (at no load)



Temperature - Capacitance, $\tan \delta$, ESR Characteristics

Osc. Level: 1.0 Vrms (at no load)



Typical Curve

Panasonic

MEMO

Panasonic

MEMO

Panasonic

MEMO

M E M O

M E M O

M E M O

Technical Data of Conductive Polymer Hybrid
Aluminium Electrolytic Capacitors

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The Second edition : June 1st 2014

Capacitor Business Division

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Customer technical group 1team of technology

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