

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

Technical Data ZF-A series



Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

A type ZF series



EEHAZF1E151	25V150 μ F	Φ 8x9.5	... ZF-2
EEHAZF1E271	25V270 μ F	Φ 10x9.5	... ZF-3
EEHAZF1V101	35V100 μ F	Φ 8x9.5	... ZF-4
EEHAZF1V151	35V150 μ F	Φ 10x9.5	... ZF-5
EEHAZF1H560	50V56 μ F	Φ 8x9.5	... ZF-6
EEHAZF1H101	50V100 μ F	Φ 10x9.5	... ZF-7
EEHAZF1J330	63V33 μ F	Φ 8x9.5	... ZF-8
EEHAZF1J560	63V56 μ F	Φ 10x9.5	... ZF-9

Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

A Type ZF Series

Part Number: EEHAZF1E151

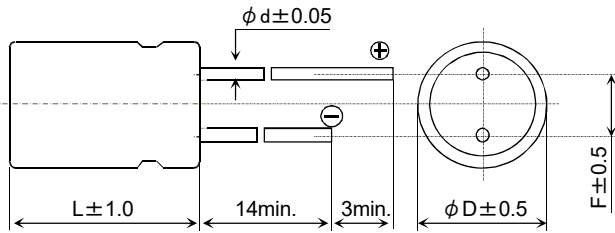
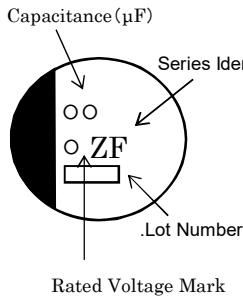
φ8.0×9.5 mm / 25 V / 150 μF / 150 °C, 1000 h

Category Temperature Range	-55 to 150 °C
Rated W.V. Range	DC 25 V
Nominal Capacitance Range	150 μF (at 120 Hz)
Capacitance Tolerance	±20 %

tanδ	0.14 max. (at 120 Hz)
DC Leakage Current	37.5 μA (0.01CV) max. (at W.V., After 2 min)
ESR	27 mΩ max. (at 100 kHz)
Ripple Current	800 mArms max. (at 100 kHz, 150 °C)
Endurance	150 °C, 1000 h

Marking, Dimensions in mm (not to scale)

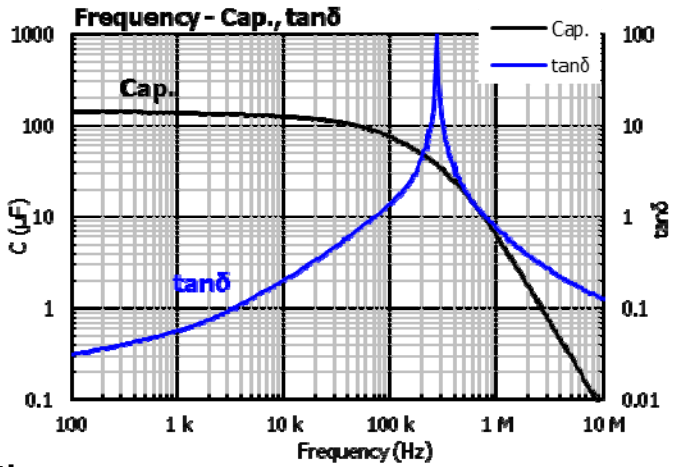
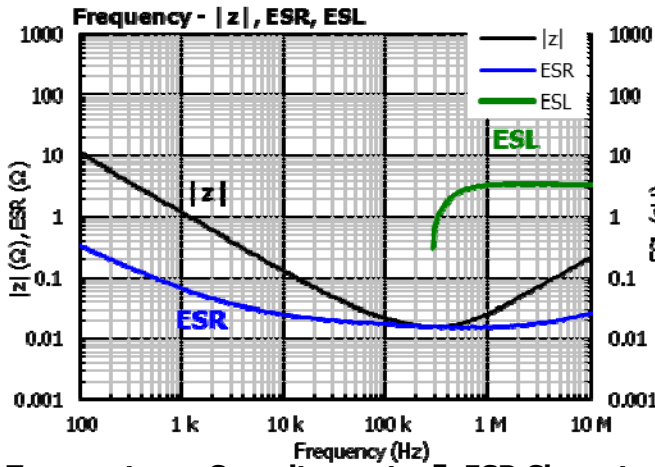
Size Code: F



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L	9.5
φ d	0.6
F	3.5

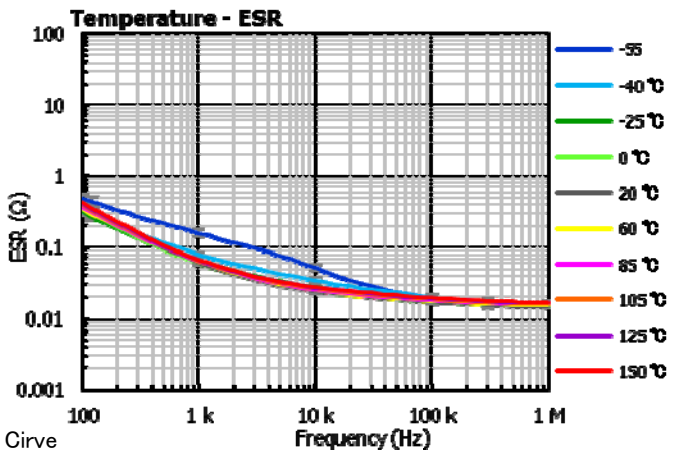
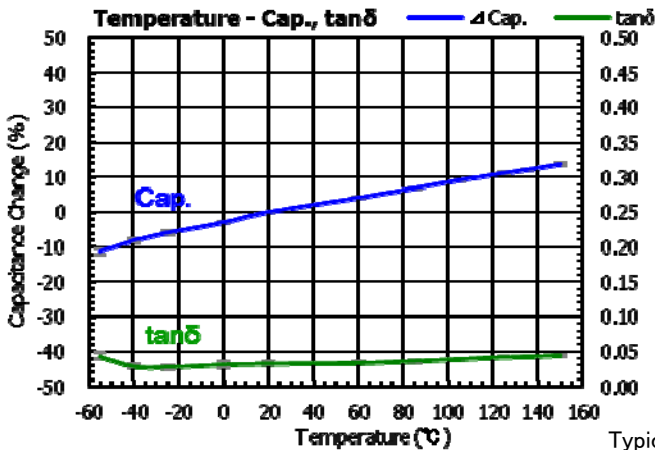
Frequency - |z|, ESR, ESL, Capacitance, tanδ Characteristics

Osc. Level: 0.5 Vrms (at no load)



Temperature - Capacitance, tanδ, ESR Characteristics

Osc. Level: 1.0 Vrms (at no load)



Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

A Type ZF Series

Part Number: EEHAZF1E271

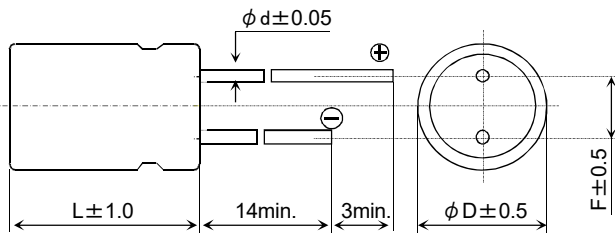
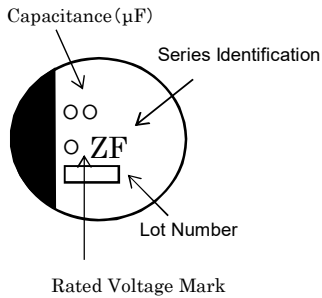
$\phi 10.0 \times 9.5$ mm / 25 V / 270 μ F / 150 $^{\circ}$ C, 1000 h

Category Temperature Range	-55 to 150 $^{\circ}$ C
Rated W.V. Range	DC 25 V
Nominal Capacitance Range	270 μ F (at 120 Hz)
Capacitance Tolerance	± 20 %

$\tan \delta$	0.14 max. (at 120 Hz)
DC Leakage Current	67.5 μ A (0.01CV) max. (at W.V., After 2 min)
ESR	20 m Ω max. (at 100 kHz)
Ripple Current	1000 mArms max. (at 100 kHz, 150 $^{\circ}$ C)
Endurance	150 $^{\circ}$ C, 1000 h

Marking, Dimensions in mm (not to scale)

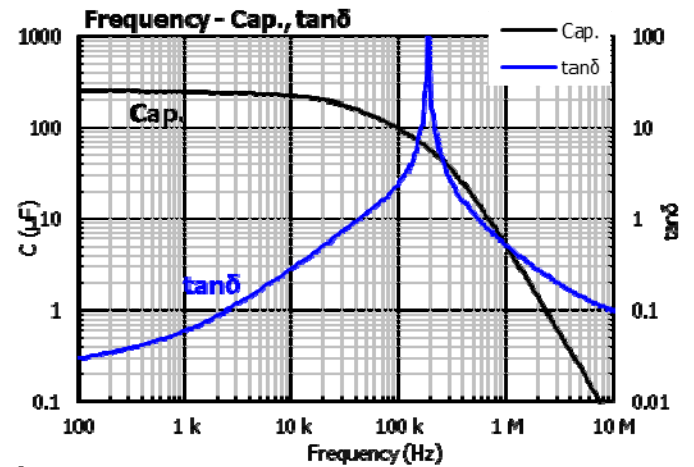
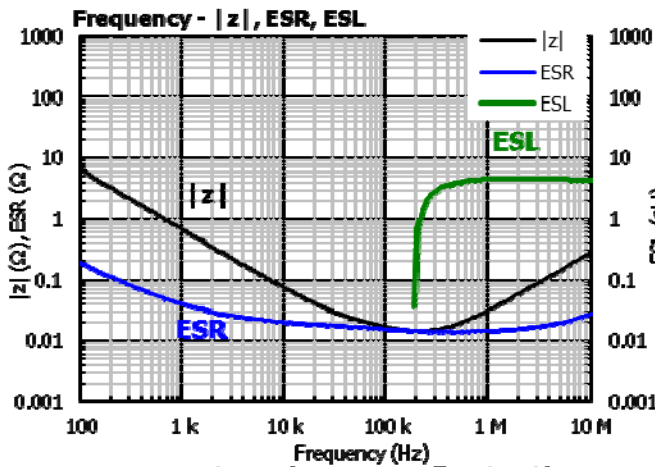
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ϕd	0.6
F	5.0

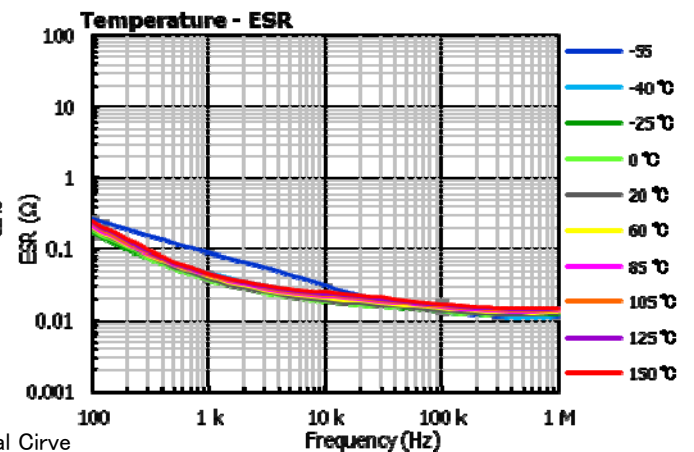
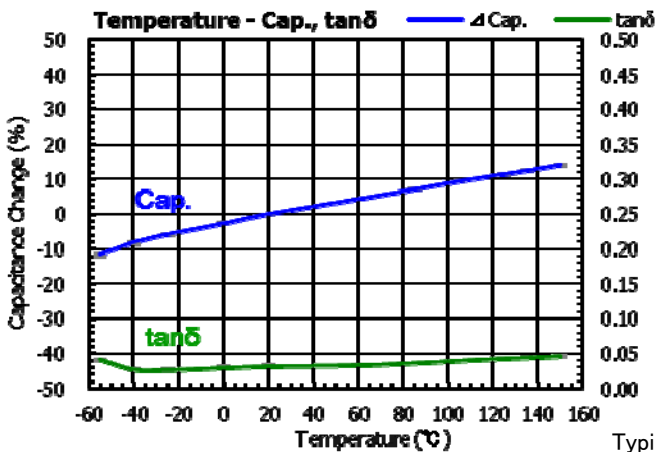
Frequency - $|z|$, ESR, ESL, Capacitance, $\tan \delta$ Characteristics

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

A Type ZF Series

Part Number: EEHAZF1V101

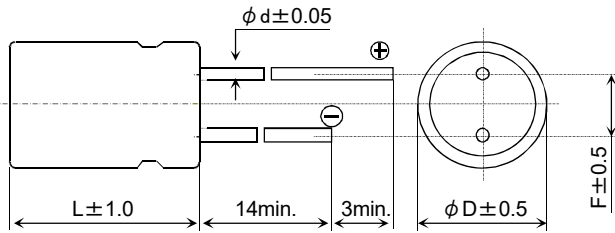
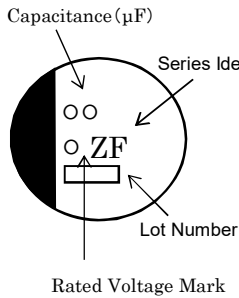
ø8.0×9.5 mm / 35 V / 100 µF / 150 °C, 1000 h

Category Temperature Range	-55 to 150 °C
Rated W.V. Range	DC 35 V
Nominal Capacitance Range	100 µF (at 120 Hz)
Capacitance Tolerance	±20 %

tanδ	0.12 max. (at 120 Hz)
DC Leakage Current	35 µA (0.01CV) max. (at W.V., After 2 min)
ESR	30 mΩ max. (at 100 kHz)
Ripple Current	770 mArms max. (at 100 kHz, 150 °C)
Endurance	150 °C, 1000 h

Marking, Dimensions in mm (not to scale)

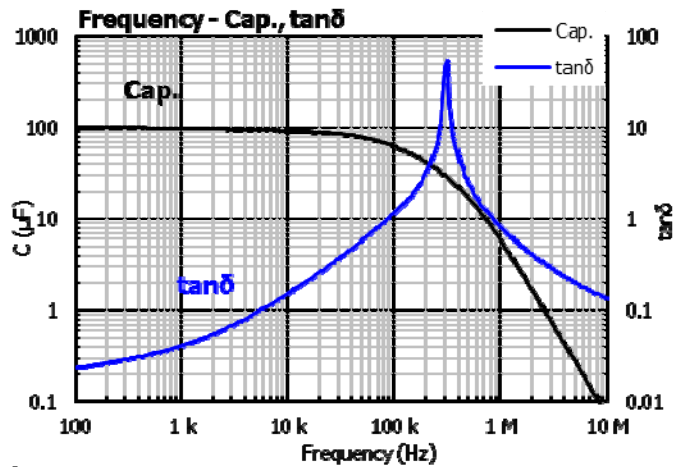
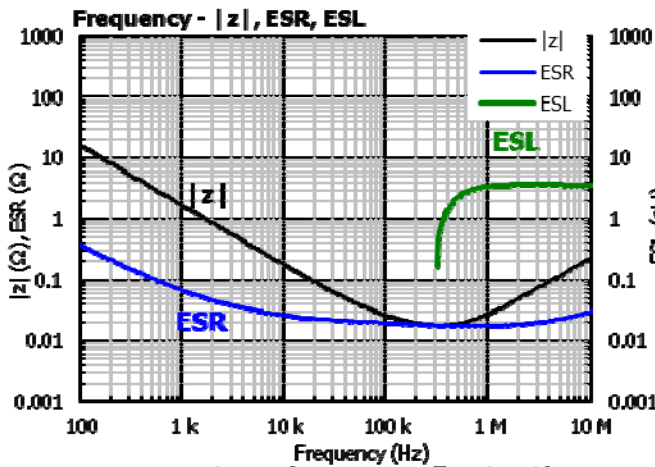
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L	9.5
ϕd	0.6
F	3.5

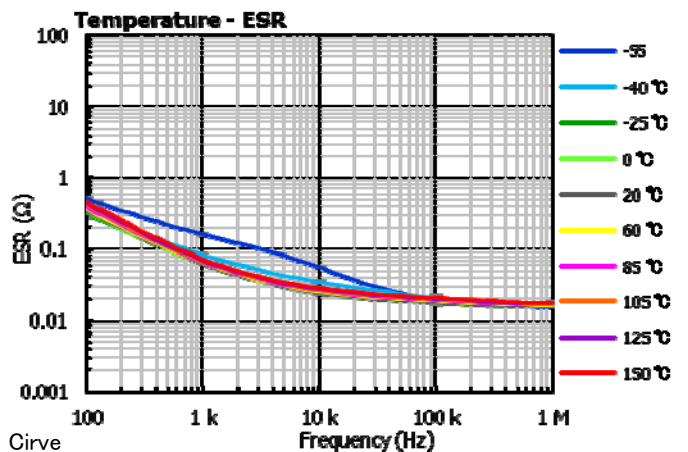
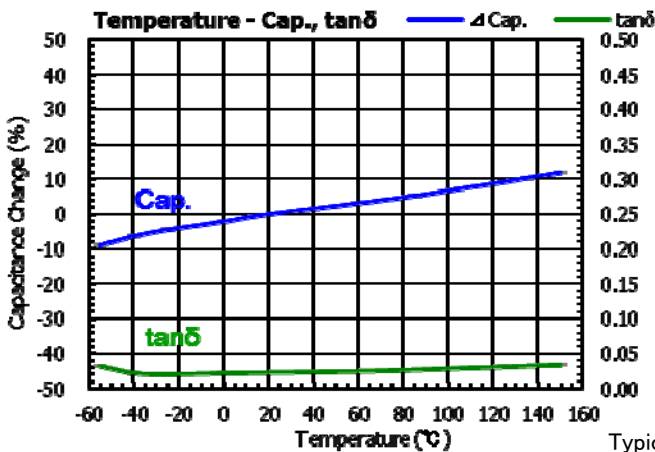
Frequency - |z|, ESR, ESL, Capacitance, tanδ Characteristics

Osc. Level: 0.5 Vrms (at no load)



Temperature - Capacitance, tanδ, ESR Characteristics

Osc. Level: 1.0 Vrms (at no load)



Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

A Type ZF Series

Part Number: EEHAZF1V151

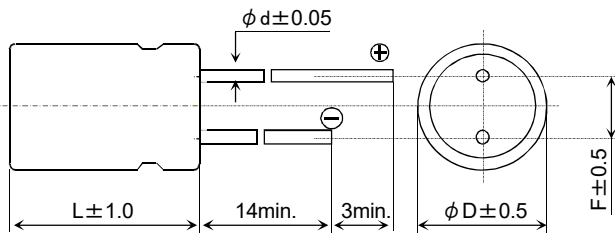
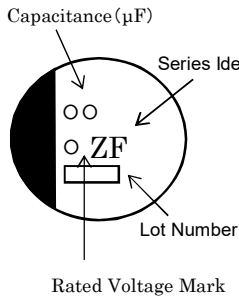
$\phi 10.0 \times 9.5$ mm / 35 V / 150 μ F / 150 $^{\circ}$ C, 1000 h

Category Temperature Range	-55 to 150 $^{\circ}$ C
Rated W.V. Range	DC 35 V
Nominal Capacitance Range	150 μ F (at 120 Hz)
Capacitance Tolerance	± 20 %

$\tan \delta$	0.12 max. (at 120 Hz)
DC Leakage Current	52.5 μ A (0.01CV) max. (at W.V., After 2 min)
ESR	23 m Ω max. (at 100 kHz)
Ripple Current	950 mArms max. (at 100 kHz, 150 $^{\circ}$ C)
Endurance	150 $^{\circ}$ C, 1000 h

Marking, Dimensions in mm (not to scale)

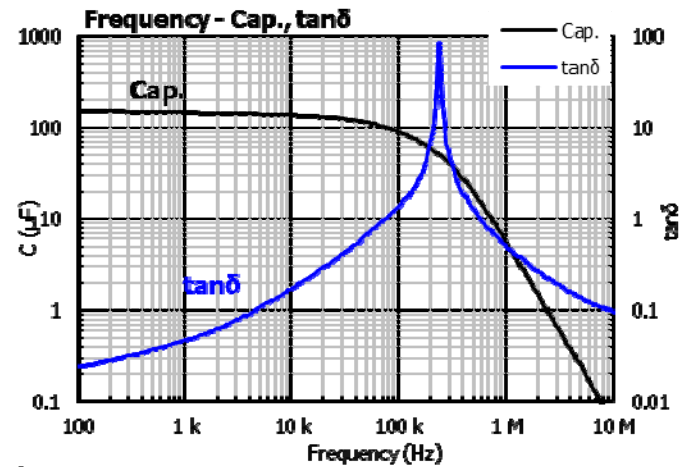
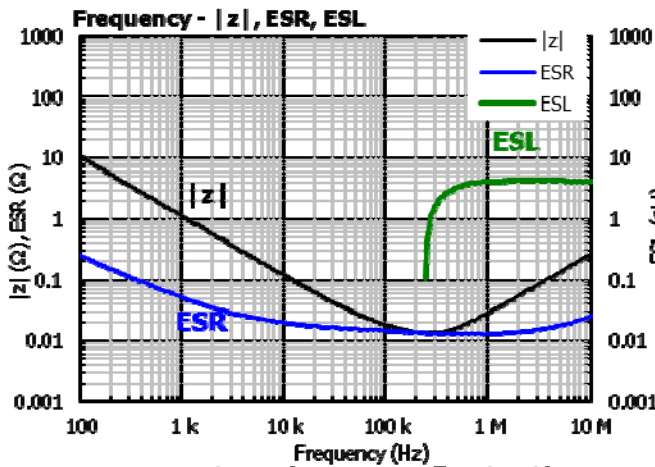
Size Code: G



	(mm)
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L	9.5
ϕd	0.6
F	5.0

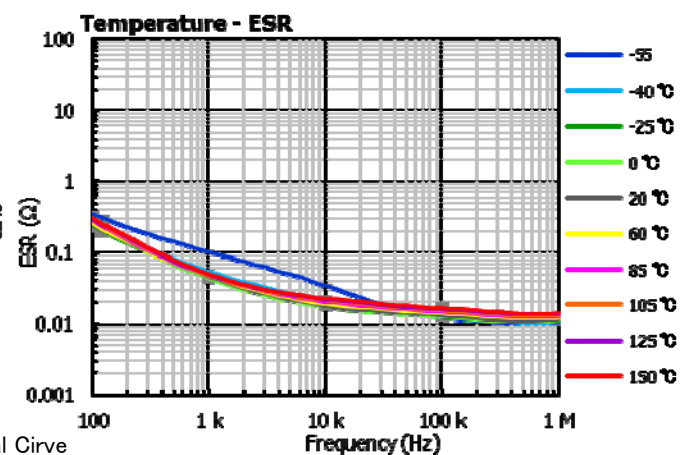
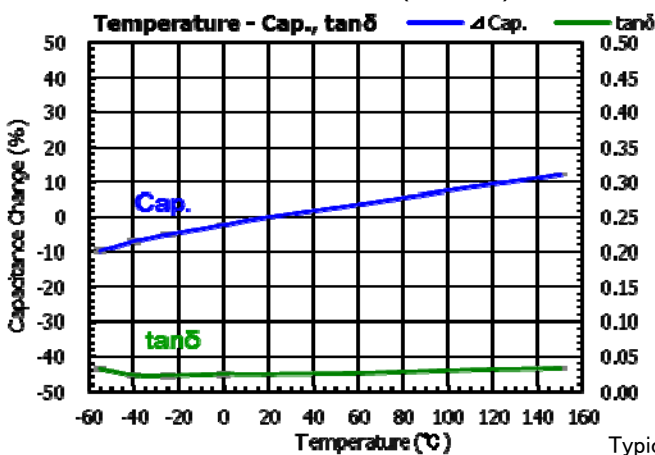
Frequency - $|z|$, ESR, ESL, Capacitance, $\tan \delta$ Characteristics

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

A Type ZF Series

Part Number: EEHAZF1H560

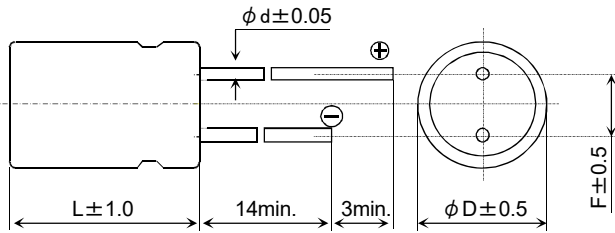
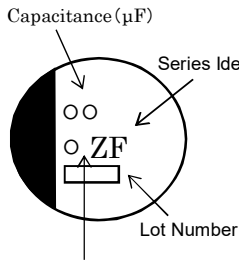
ø8.0×9.5 mm / 50 V / 56 µF / 150 °C, 1000 h

Category Temperature Range	-55 to 150 °C
Rated W.V. Range	DC 50 V
Nominal Capacitance Range	56 µF (at 120 Hz)
Capacitance Tolerance	±20 %

tanδ	0.10 max. (at 120 Hz)
DC Leakage Current	28 µA (0.01CV) max. (at W.V., After 2 min)
ESR	35 mΩ max. (at 100 kHz)
Ripple Current	700 mArms max. (at 100 kHz, 150 °C)
Endurance	150 °C, 1000 h

Marking, Dimensions in mm (not to scale)

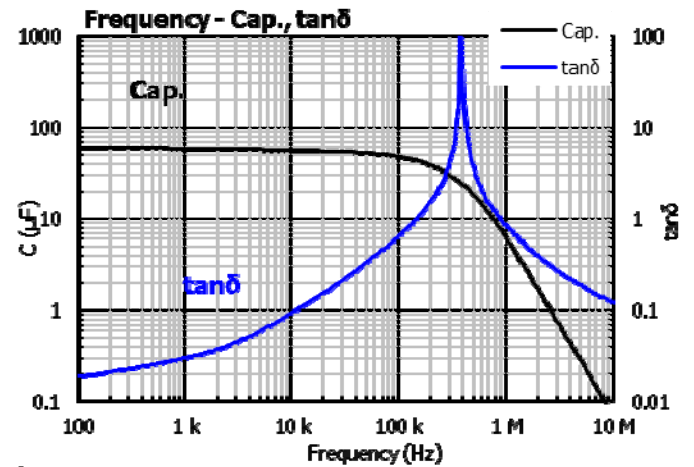
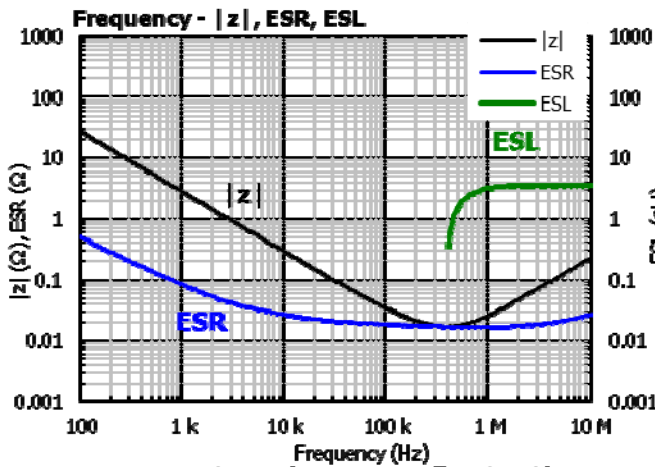
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	(mm)
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L	9.5
ø d	0.6
F	3.5

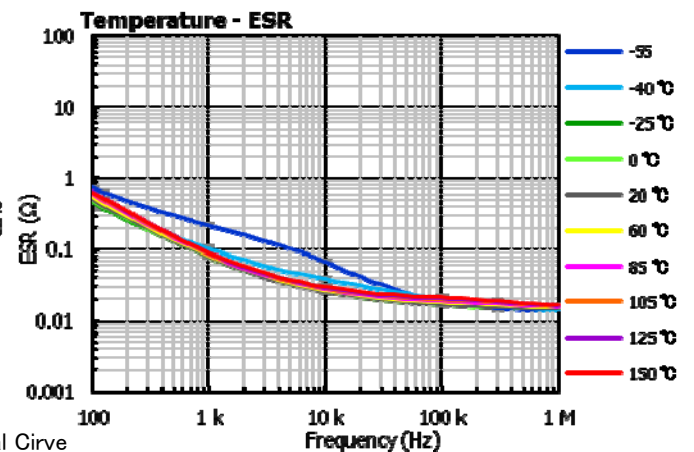
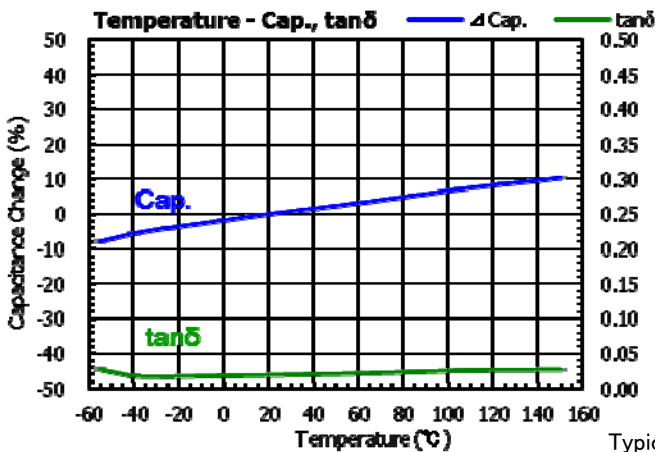
Frequency - |z|, ESR, ESL, Capacitance, tanδ Characteristics

Osc. Level: 0.5 Vrms (at no load)



Temperature - Capacitance, tanδ, ESR Characteristics

Osc. Level: 1.0 Vrms (at no load)



Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

A Type ZF Series

Part Number: EEHAZF1H101

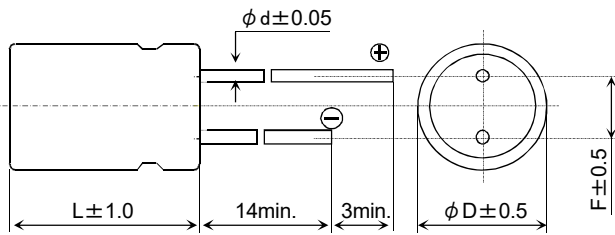
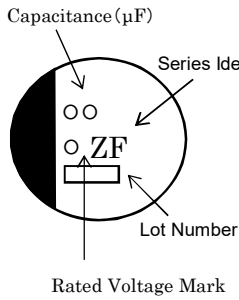
$\phi 10.0 \times 9.5$ mm / 50 V / 100 μ F / 150 $^{\circ}$ C, 1000 h

Category Temperature Range	-55 to 150 $^{\circ}$ C
Rated W.V. Range	DC 50 V
Nominal Capacitance Range	100 μ F (at 120 Hz)
Capacitance Tolerance	± 20 %

$\tan \delta$	0.10 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	900 mArms max. (at 100 kHz, 150 $^{\circ}$ C)
Endurance	150 $^{\circ}$ C, 1000 h

Marking, Dimensions in mm (not to scale)

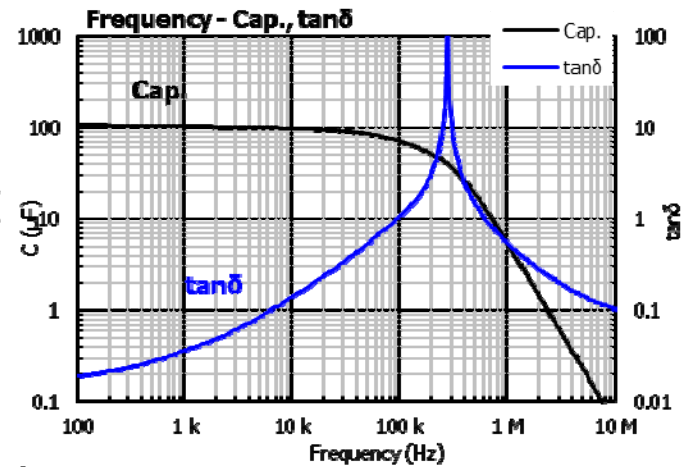
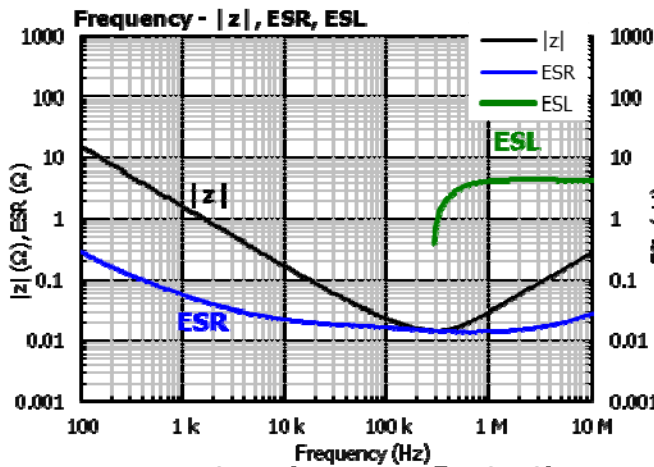
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ϕd	0.6
F	5.0

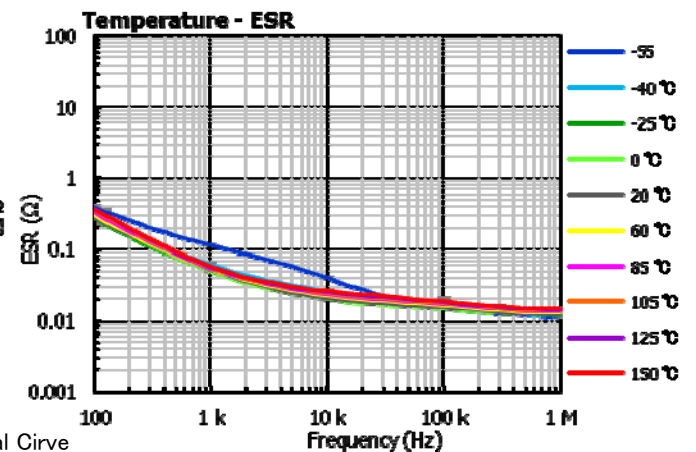
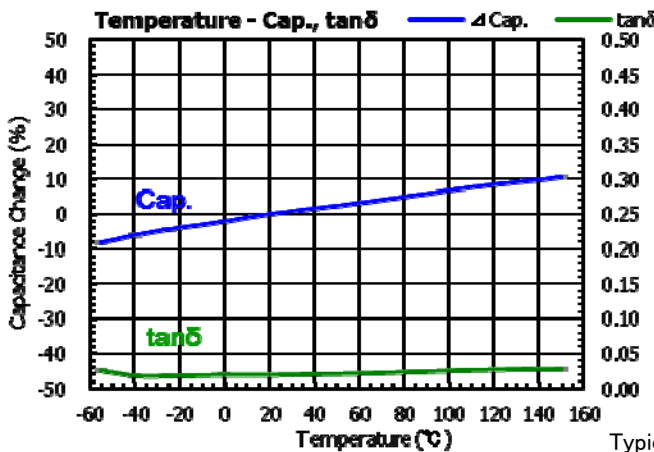
Frequency - $|z|$, ESR, ESL, Capacitance, $\tan \delta$ Characteristics

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

A Type ZF Series

Part Number: EEHAZF1J330

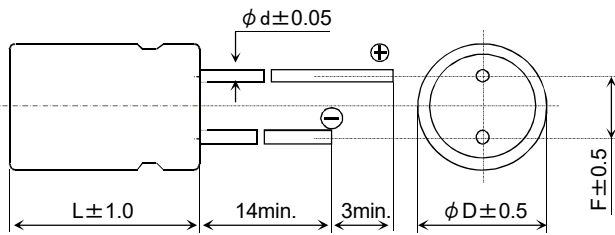
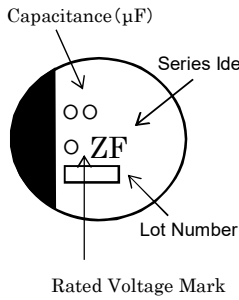
$\phi 8.0 \times 9.5$ mm / 63 V / 33 μ F / 150 °C, 1000 h

Category Temperature Range	-55 to 150 °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	650 mArms max. (at 100 kHz, 150 °C)
Endurance	150 °C, 1000 h

Marking, Dimensions in mm (not to scale)

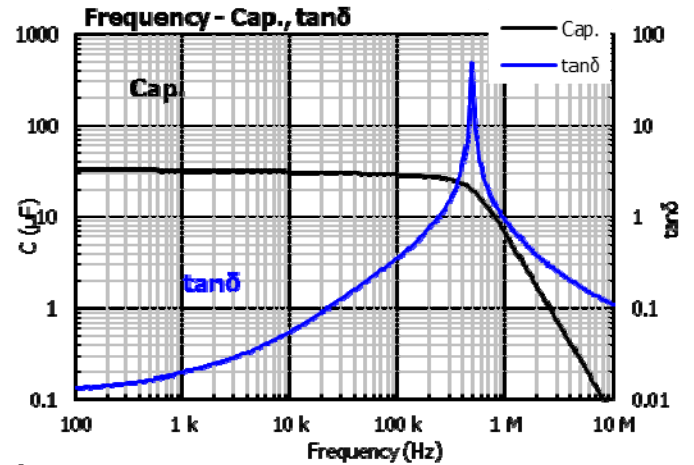
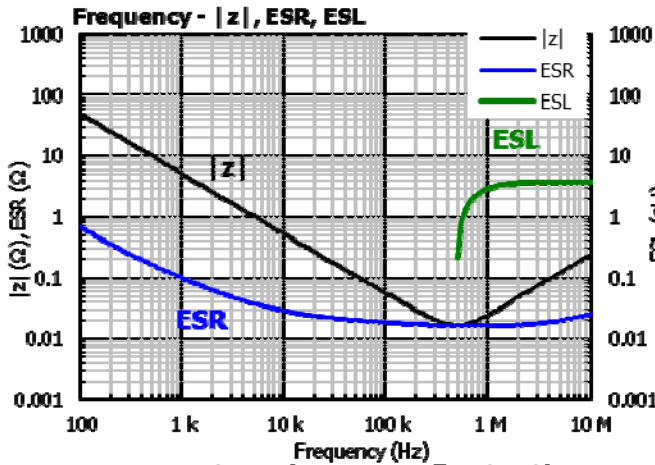
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ϕd	0.6
F	3.5

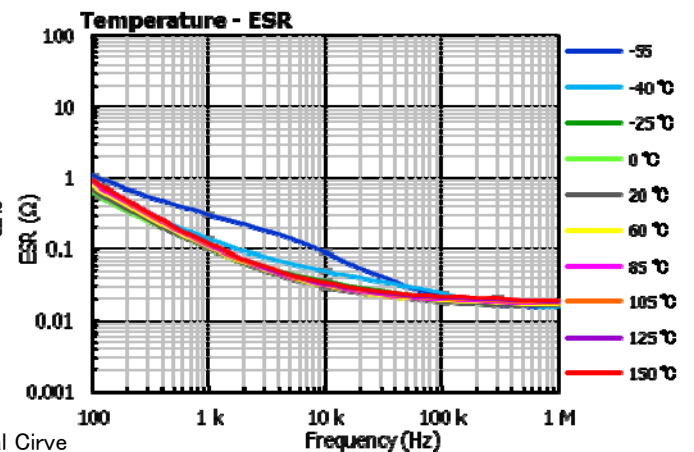
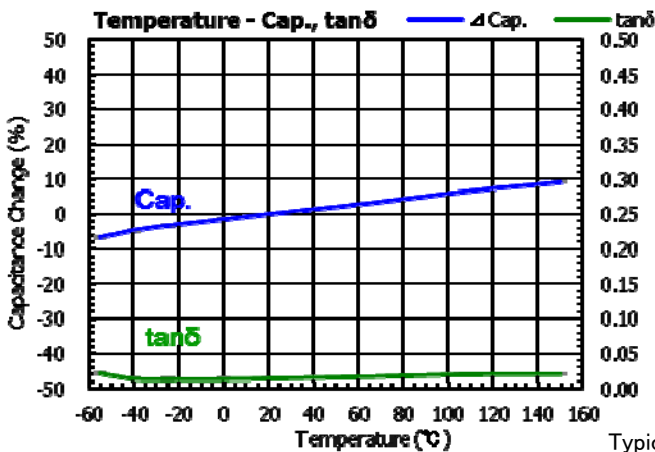
Frequency - $|z|$, ESR, ESL, Capacitance, $\tan \delta$ Characteristics

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

A Type ZF Series

Part Number: EEHAZF1J560

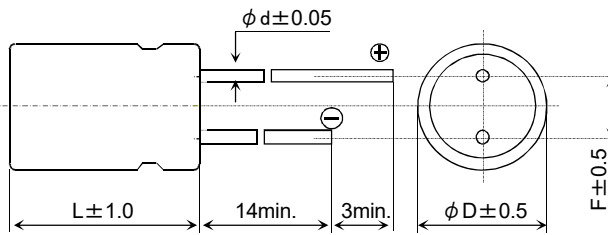
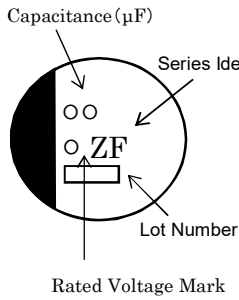
$\phi 10.0 \times 9.5$ mm / 63 V / 56 μ F / 150 °C, 1000 h

Category Temperature Range	-55 to 150 °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	840 mArms max. (at 100 kHz, 150 °C)
Endurance	150 °C, 1000 h

Marking, Dimensions in mm (not to scale)

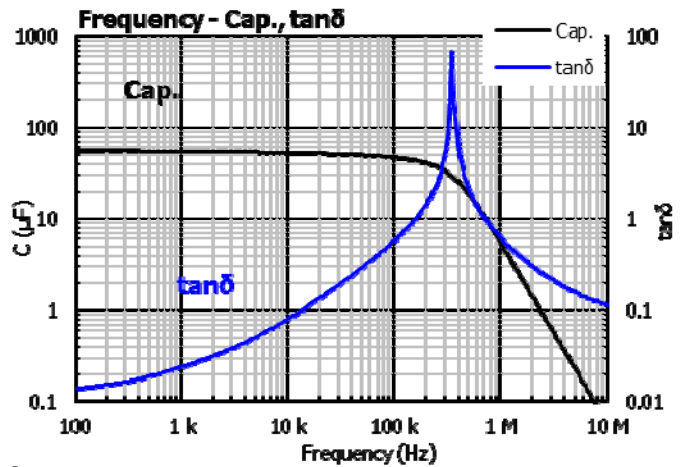
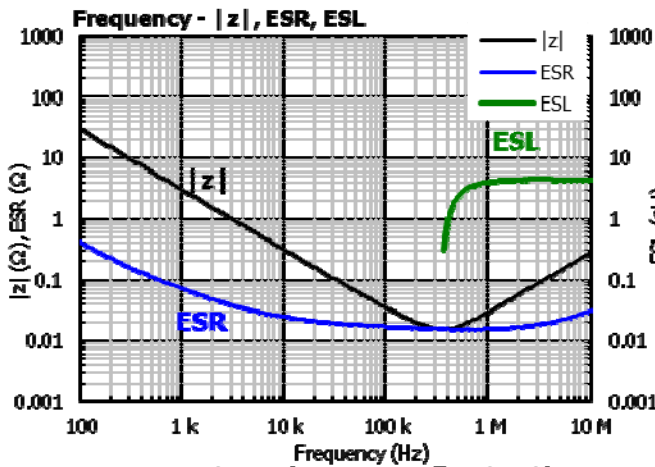
Size Code: G



	(mm)
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L	9.5
ϕd	0.6
F	5.0

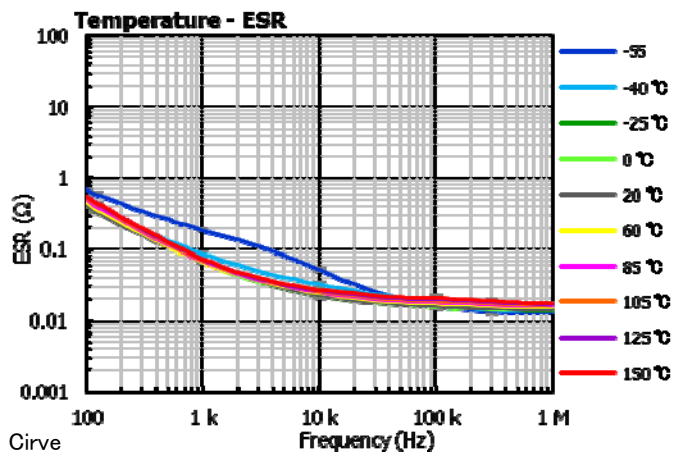
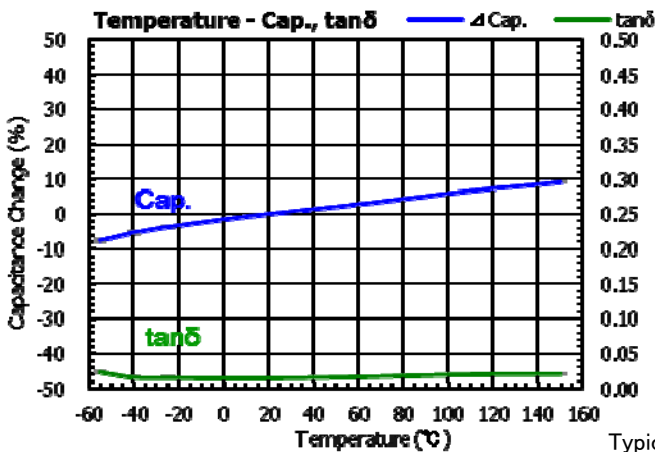
Frequency - $|z|$, ESR, ESL, Capacitance, $\tan \delta$ Characteristics

Osc. Level: 0.5 Vrms (at no load)



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

Osc. Level: 1.0 Vrms (at no load)



**Conductive Polymer Hybrid
Aluminum Electrolytic Capacitors**

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Device Solutions Business Division

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