



Conductive Polymer Hybrid
Aluminum Electrolytic Capacitor
Technical Data ZKU series



Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor V type ZKU series



EEHZK1E560UR	25V	56uF	φ5 x	5.8mm	...	1
EEHZK1E101UP	25V	100uF	φ6.3 x	5.8mm	...	2
EEHZKE181XUP	25V	180uF	φ6.3 x	7.7mm	...	3
EEHZK1E331UP	25V	330uF	φ8 x	10.2mm	...	4
EEHZK1E561UP	25V	560uF	φ10 x	10.2mm	...	5
EEHZK1V390UR	35V	39uF	φ5 x	5.8mm	...	6
EEHZK1V680UP	35V	68uF	φ6.3 x	5.8mm	...	7
EEHZKV121XUP	35V	120uF	φ6.3 x	7.7mm	...	8
EEHZK1V221UP	35V	220uF	φ8 x	10.2mm	...	9
EEHZK1V391UP	35V	390uF	φ10 x	10.2mm	...	10

Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor V type ZKU series

Part Number: EEHZK1E560UR

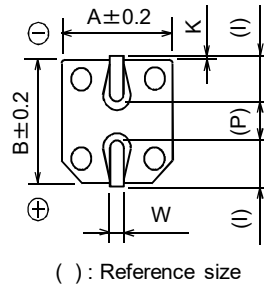
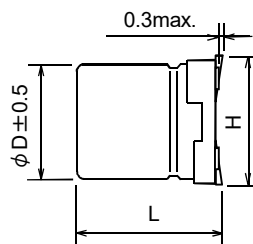
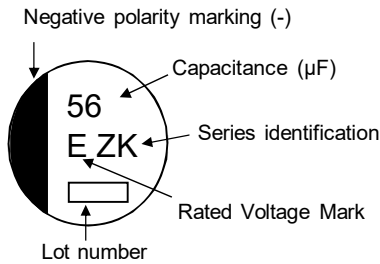
φ5×5.8 mm / 25 V / 56 μF / 125 °C, 4000 h

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

tanδ	0.14 max. (at 120 Hz)
DC Leakage Current	14 μA (0.01CV) max. (at R.V., After 2 min)
ESR	80 mΩ max. (at 100 kHz)
Ripple Current	850 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

Marking, Dimensions in mm (not to scale)

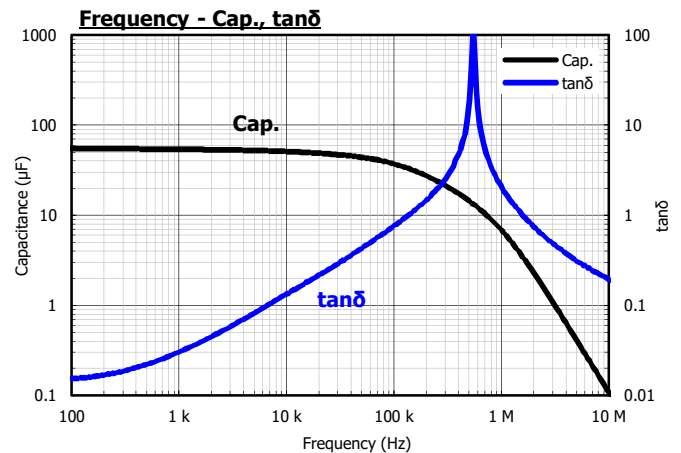
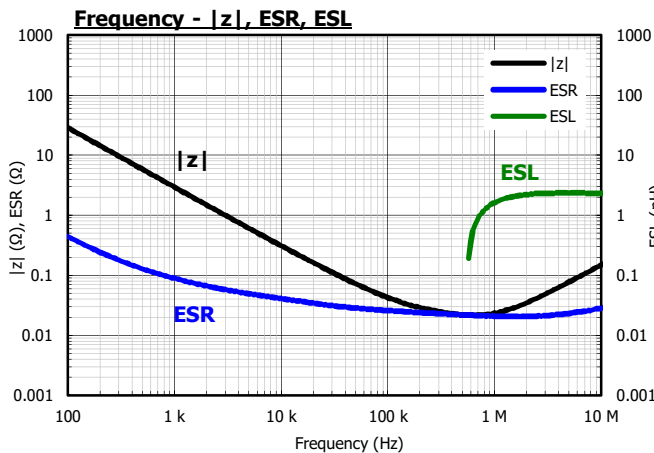
Size Code: C



	(mm)
D	5.0
L	5.8±0.3
A, B	5.3
H	6.5 max.
I	2.2
W	0.65±0.1
P	1.5
K	0.35+0.15/-0.20

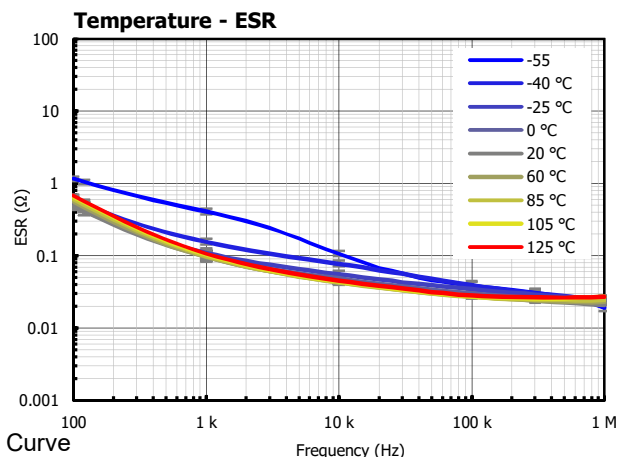
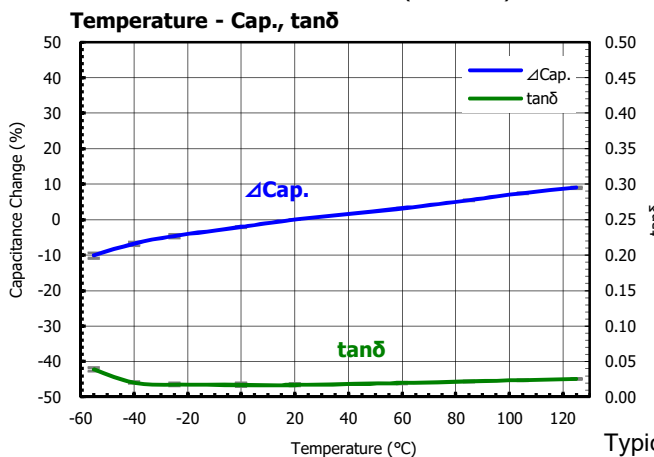
Frequency - |z|, ESR, ESL, Capacitance, tanδ Characteristics

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 ZKU series

Part Number: EEHZK1E101UP

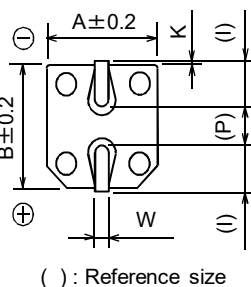
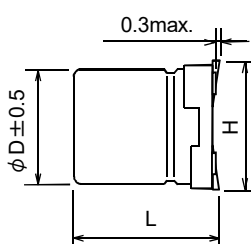
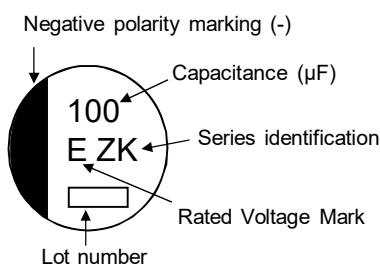
φ6.3×5.8 mm / 25 V / 100 μF / 125 °C, 4000 h

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

tanδ	0.14 max. (at 120 Hz)
DC Leakage Current	25 μA (0.01CV) max. (at R.V., After 2 min)
ESR	50 mΩ max. (at 100 kHz)
Ripple Current	1300 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

Marking, Dimensions in mm (not to scale)

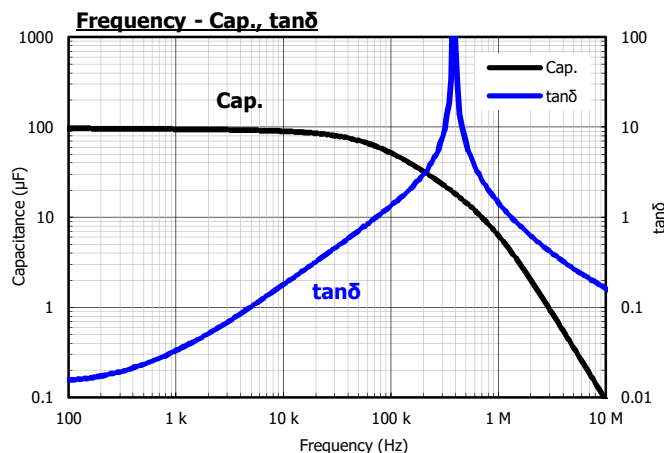
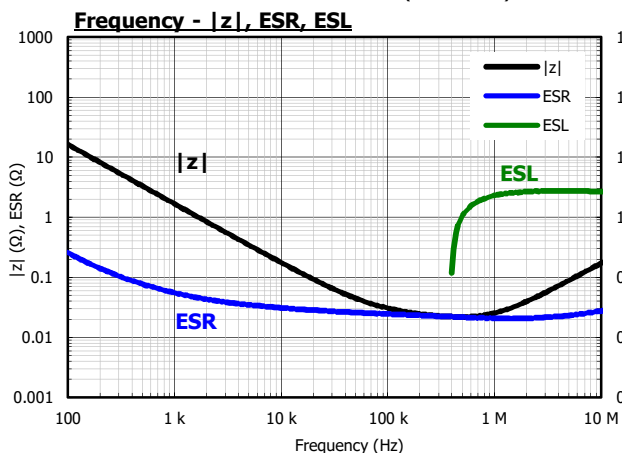
Size Code: D



	(mm)
D	6.3
L	5.8±0.3
A, B	6.6
H	7.8 max.
I	2.6
W	0.65±0.1
P	1.8
K	0.35+0.15/-0.20

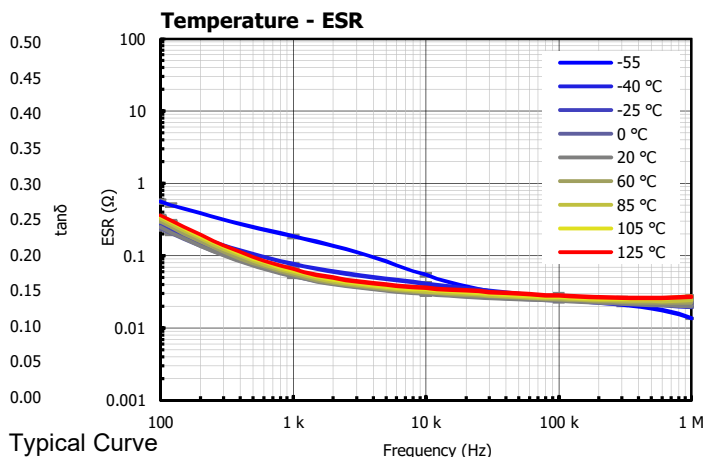
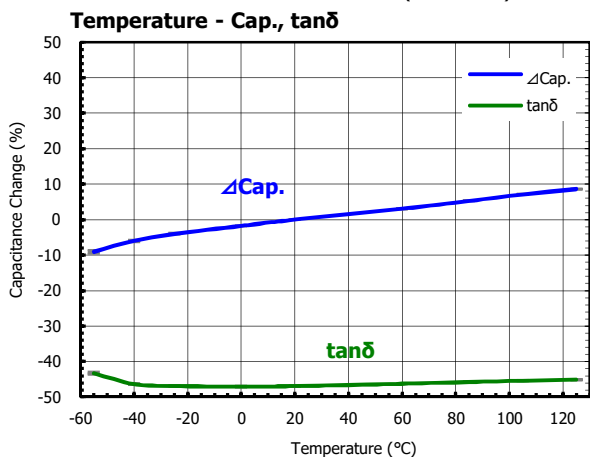
Frequency - |z|, ESR, ESL, Capacitance, tanδ Characteristics

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 ZKU series

Part Number: EEHZKE181XUP

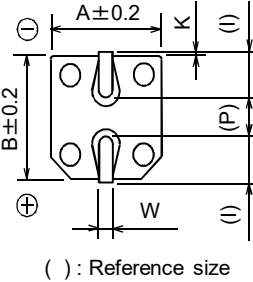
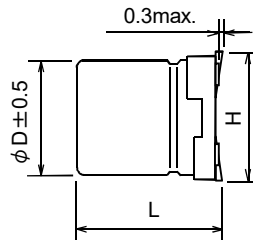
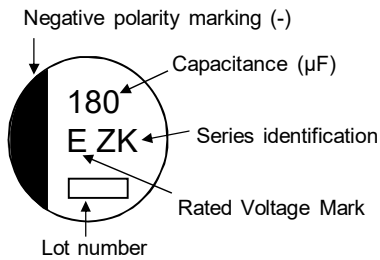
φ6.3×7.7 mm / 25 V / 180 μF / 125 °C, 4000 h

Category Temperature Range	-55 to 125 °C
Rated Voltage	25 V. DC
Nominal Capacitance	180 μF (at 120 Hz)
Capacitance Tolerance	±20 %

tanδ	0.14 max. (at 120 Hz)
DC Leakage Current	45 μA (0.01CV) max. (at R.V., After 2 min)
ESR	30 mΩ max. (at 100 kHz)
Ripple Current	1800 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

Marking, Dimensions in mm (not to scale)

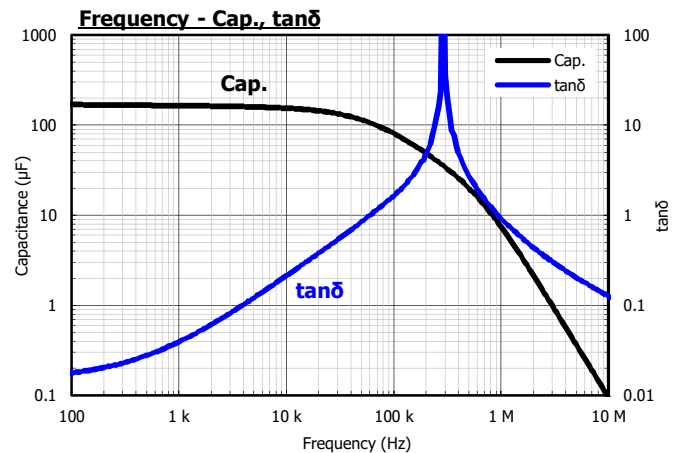
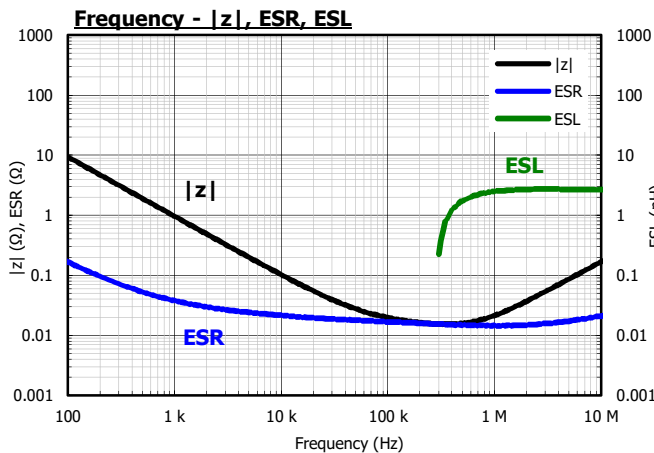
Size Code:D8



	(mm)
D	6.3
L	7.7±0.3
A, B	6.6
H	7.8 max.
I	2.6
W	0.65±0.1
P	1.8
K	0.35+0.15/-0.20

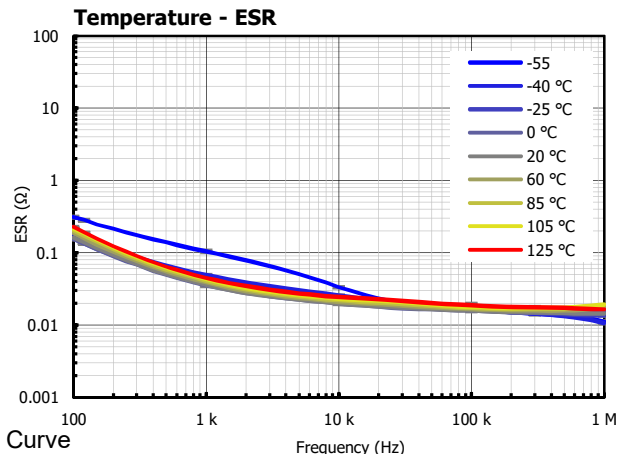
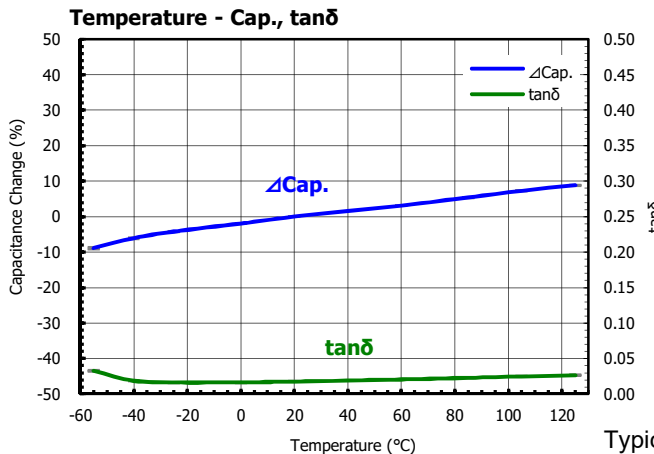
Frequency - |z|, ESR, ESL, Capacitance, tanδ Characteristics

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 ZKU series

Part Number: EEHZK1E331UP

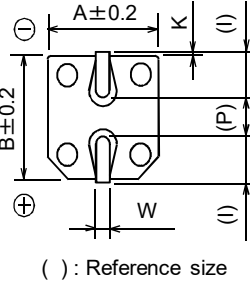
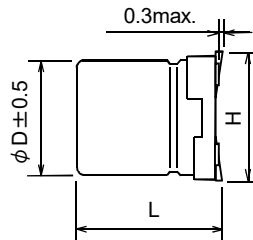
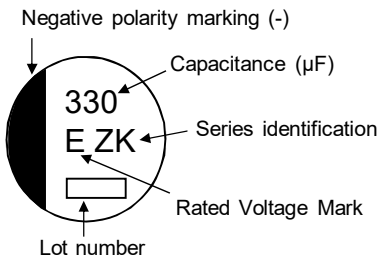
φ8×10.2 mm / 25 V / 330 μF / 125 °C, 4000 h

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

tanδ	0.14 max. (at 120 Hz)
DC Leakage Current	82.5 μA (0.01CV) max. (at R.V., After 2 min)
ESR	27 mΩ 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)

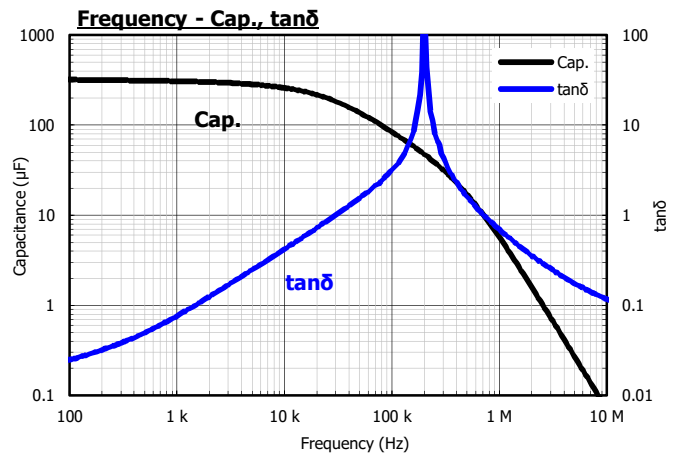
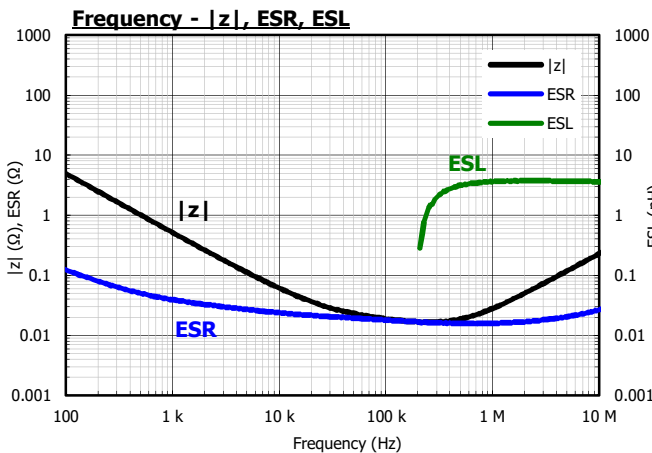
Size Code: F



	(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

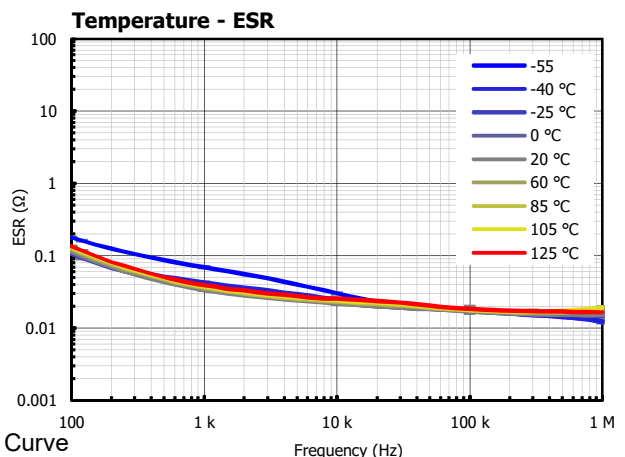
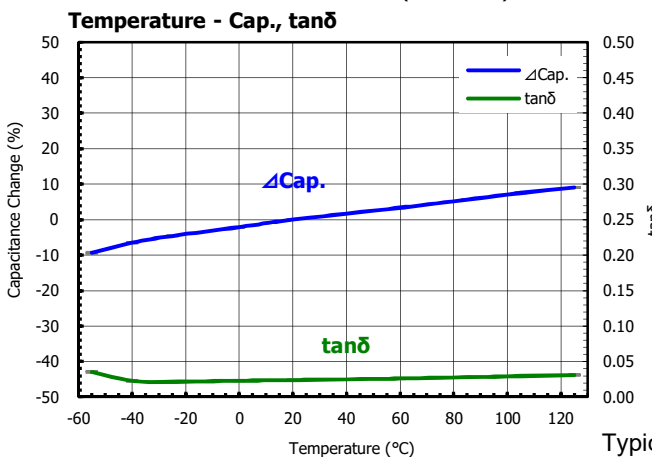
Frequency - |z|, ESR, ESL, Capacitance, tanδ Characteristics

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 ZKU series

Part Number: EEHZK1E561UP

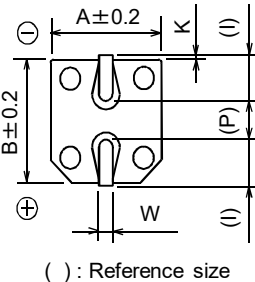
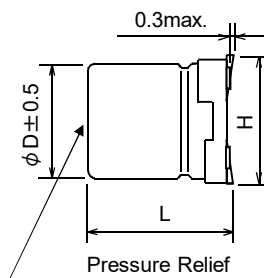
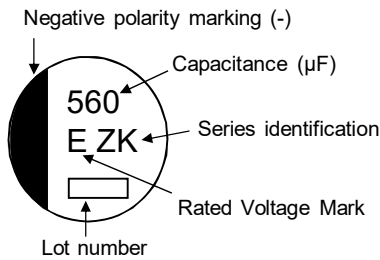
φ10×10.2 mm / 25 V / 560 μF / 125 °C, 4000 h

Category Temperature Range	-55 to 125 °C
Rated Voltage	25 V. DC
Nominal Capacitance	560 μF (at 120 Hz)
Capacitance Tolerance	±20 %

tanδ	0.14 max. (at 120 Hz)
DC Leakage Current	140 μA (0.01CV) max. (at R.V., After 2 min)
ESR	20 mΩ max. (at 100 kHz)
Ripple Current	2800 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

Marking, Dimensions in mm (not to scale)

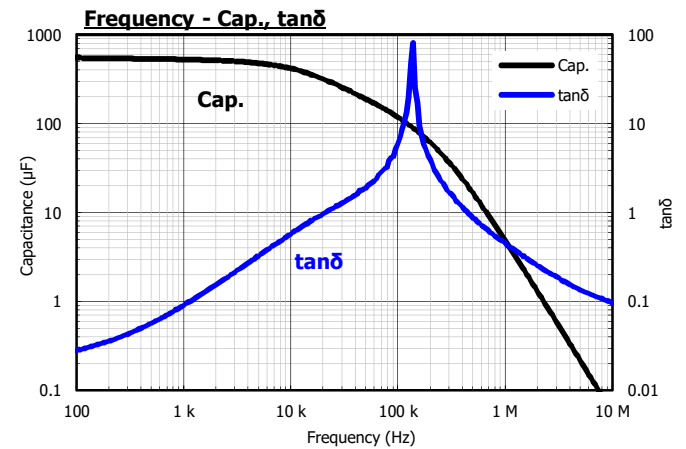
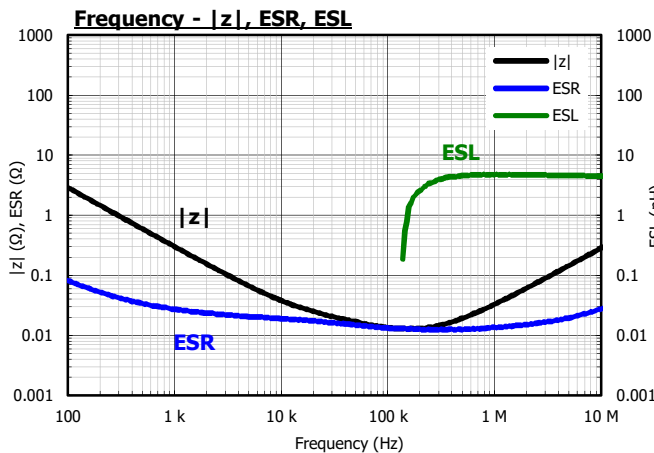
Size Code: G



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

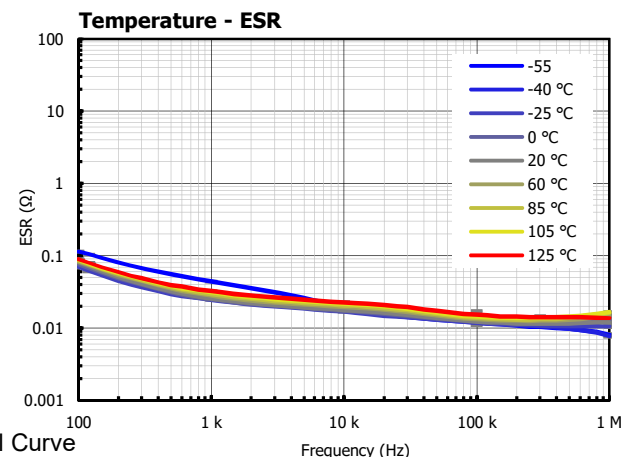
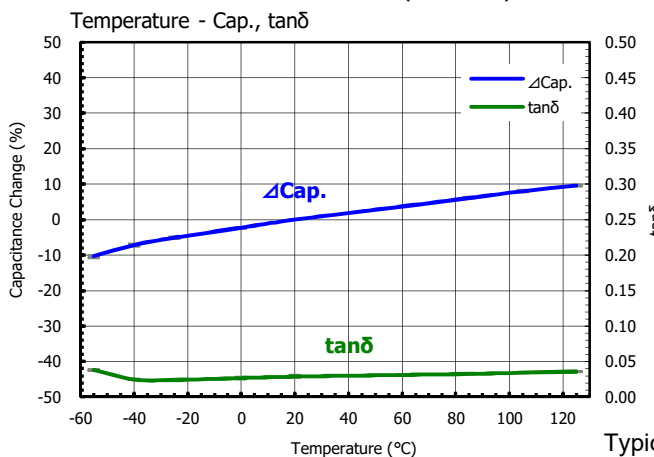
Frequency - |z|, ESR, ESL, Capacitance, tanδ Characteristics

Osc. Level: 0.5 Vrms (at no load)



Temperature - Capacitance, tanδ, ESR Characteristics

Osc. Level: 1.0 Vrms (at no load)



Typical Curve

Technical Data

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor

V type ZKU series

Part Number: EEHZK1V390UR

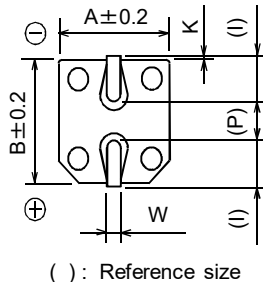
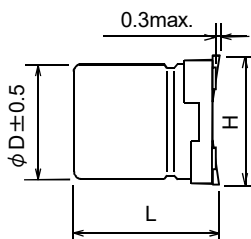
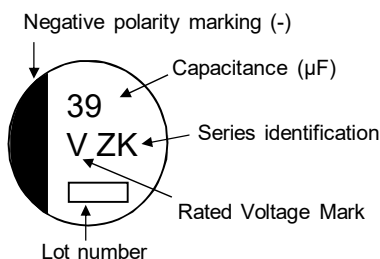
φ5×5.8 mm / 35 V / 39 μF / 125 °C, 4000 h

Category Temperature Range	-55 to 125 °C
Rated Voltage	35 V. DC
Nominal Capacitance	39 μF (at 120 Hz)
Capacitance Tolerance	±20 %

tanδ	0.12 max. (at 120 Hz)
DC Leakage Current	13.6 μA (0.01CV) max. (at R.V., After 2 min)
ESR	100 mΩ 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)

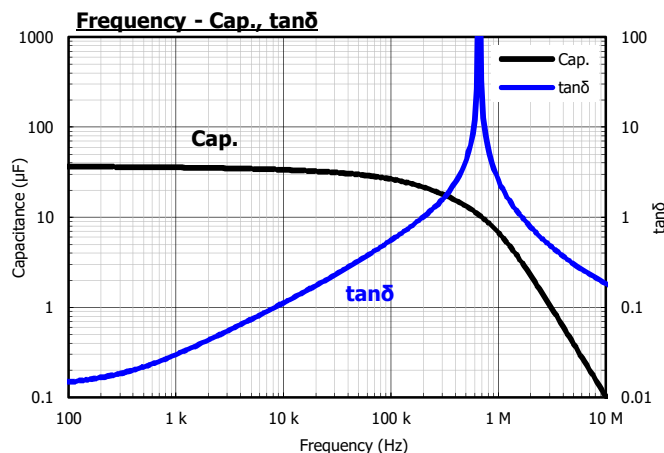
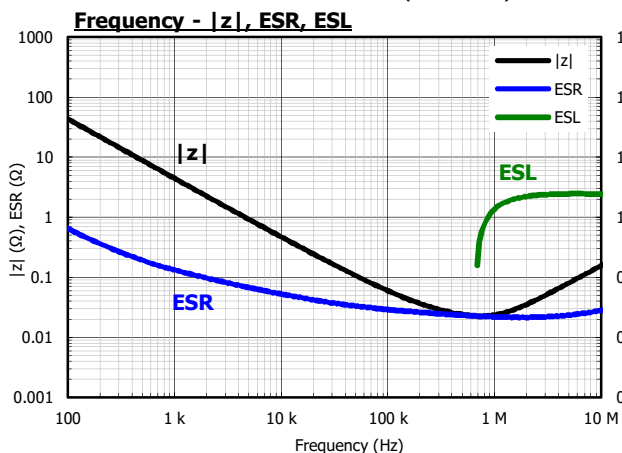
Size Code: C



	(mm)
D	5.0
L	5.8±0.3
A, B	5.3
H	6.5 max.
I	2.2
W	0.65±0.1
P	1.5
K	0.35+0.15/-0.20

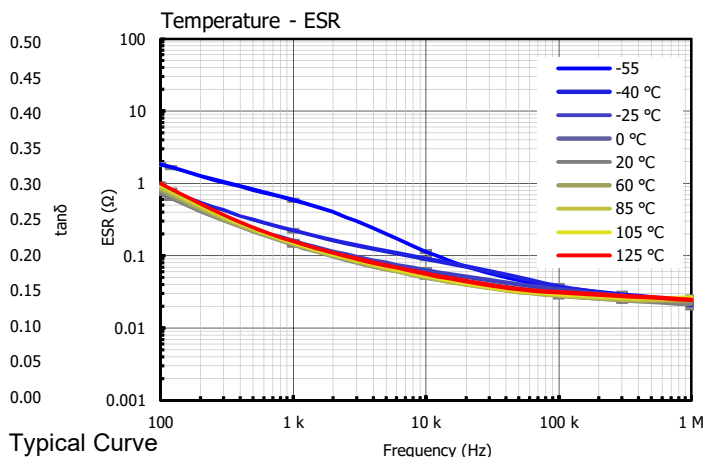
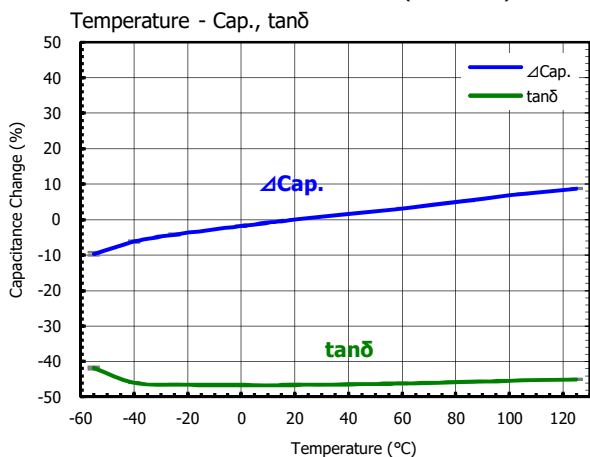
Frequency - |z|, ESR, ESL, Capacitance, tanδ Characteristics

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 V type ZKU series

Part Number: EEHZK1V680UP

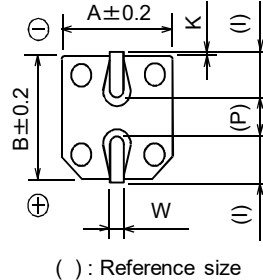
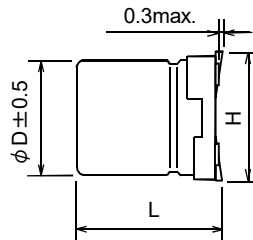
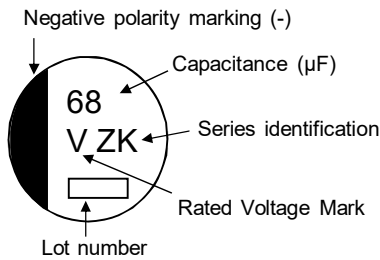
φ6.3×5.8 mm / 35 V / 68 μF / 125 °C, 4000 h

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

tanδ	0.12 max. (at 120 Hz)
DC Leakage Current	23.8 μA (0.01CV) max. (at R.V., After 2 min)
ESR	60 mΩ max. (at 100 kHz)
Ripple Current	1200 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

Marking, Dimensions in mm (not to scale)

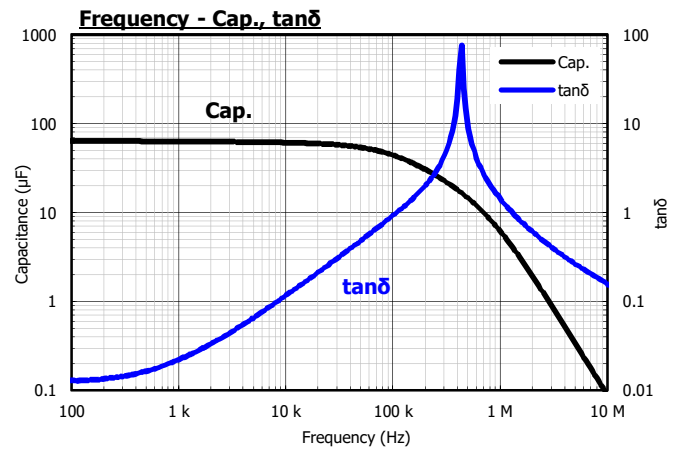
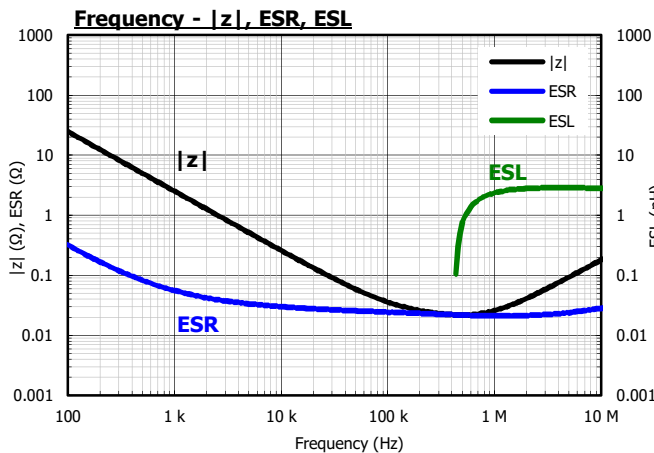
Size Code: D



	(mm)
D	6.3
L	5.8±0.3
A, B	6.6
H	7.8 max.
I	2.6
W	0.65±0.1
P	1.8
K	0.35+0.15/-0.20

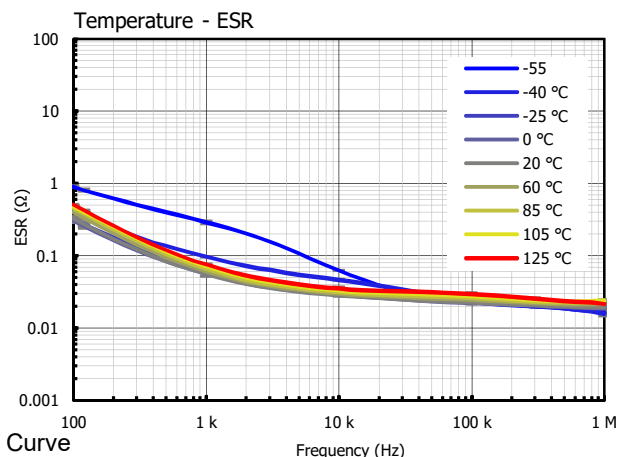
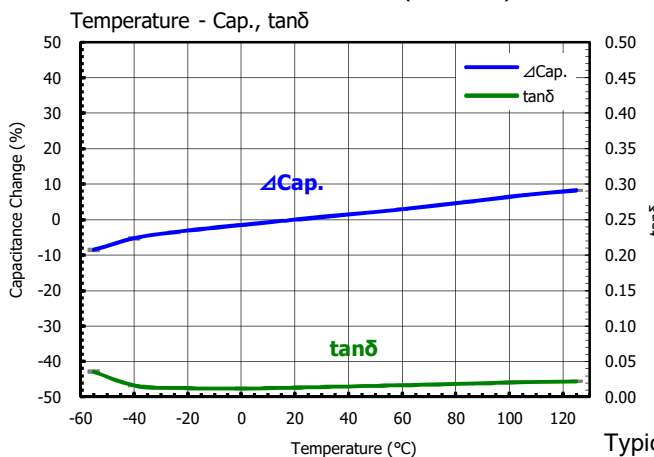
Frequency - |z|, ESR, ESL, Capacitance, tanδ Characteristics

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 ZKU series

Part Number: EEHZKV121XUP

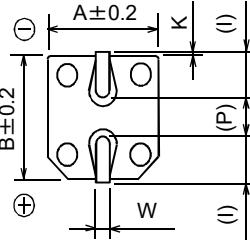
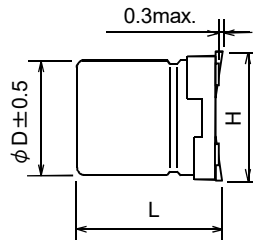
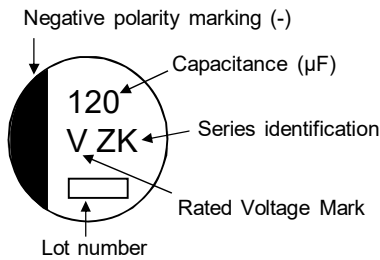
φ6.3×7.7 mm / 35 V / 120 μF / 125 °C, 4000 h

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

tanδ	0.12 max. (at 120 Hz)
DC Leakage Current	42 μA (0.01CV) max. (at R.V., After 2 min)
ESR	35 mΩ max. (at 100 kHz)
Ripple Current	1700 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

Marking, Dimensions in mm (not to scale)

Size Code:D8

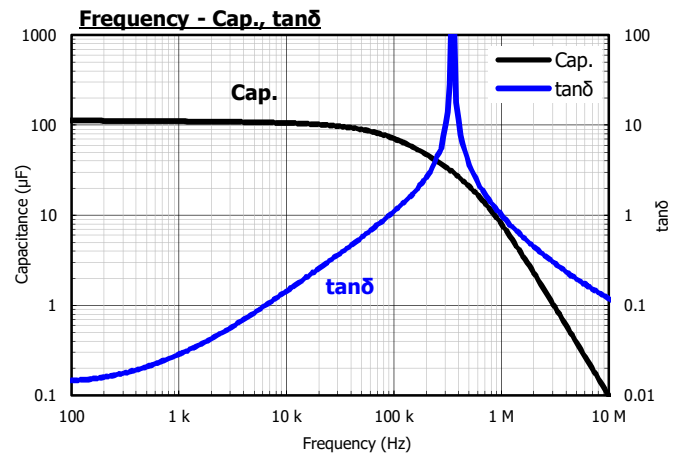
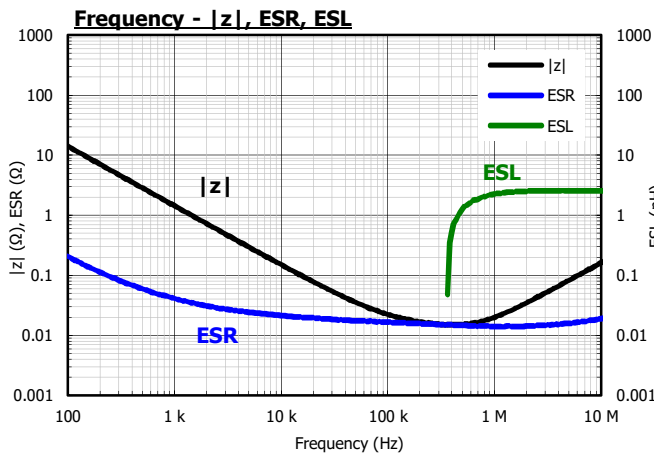


() : Reference size

	(mm)
D	6.3
L	7.7±0.3
A, B	6.6
H	7.8 max.
I	2.6
W	0.65±0.1
P	1.8
K	0.35+0.15/-0.20

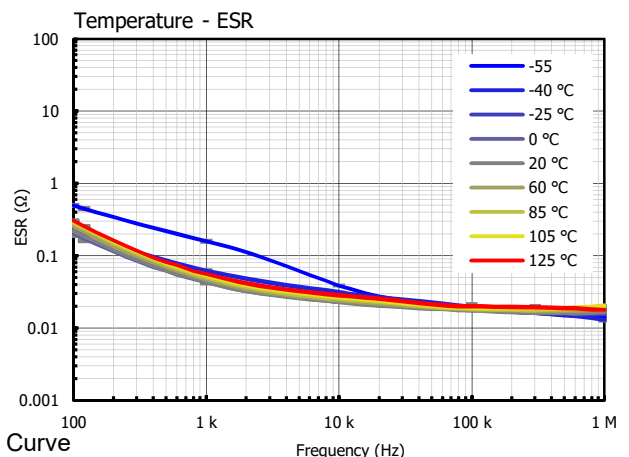
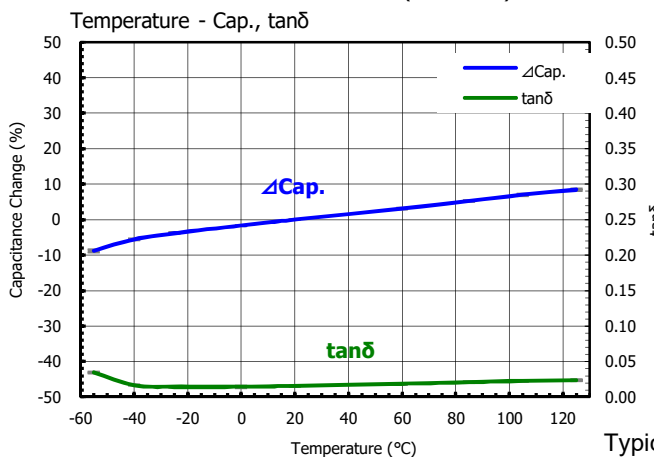
Frequency - |z|, ESR, ESL, Capacitance, tanδ Characteristics

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 ZKU series

Part Number: EEHZK1V221UP

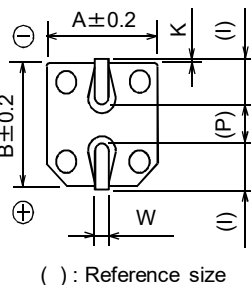
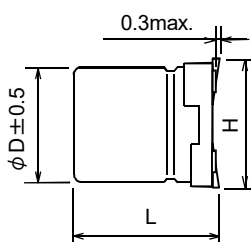
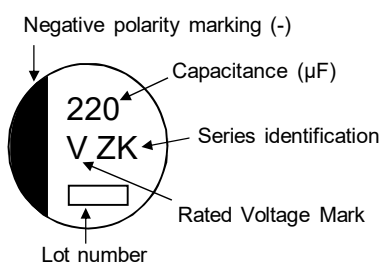
φ8×10.2 mm / 35 V / 220 μF / 125 °C, 4000 h

Category Temperature Range	-55 to 125 °C
Rated Voltage	35 V. DC
Nominal Capacitance	220 μF (at 120 Hz)
Capacitance Tolerance	±20 %

tanδ	0.12 max. (at 120 Hz)
DC Leakage Current	77 μA (0.01CV) max. (at R.V., After 2 min)
ESR	27 mΩ 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)

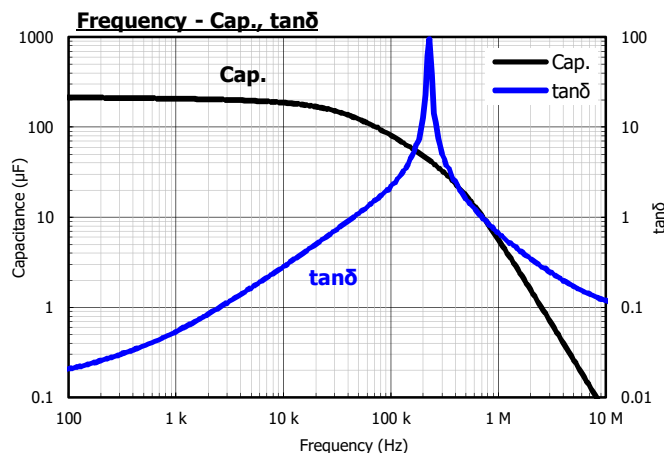
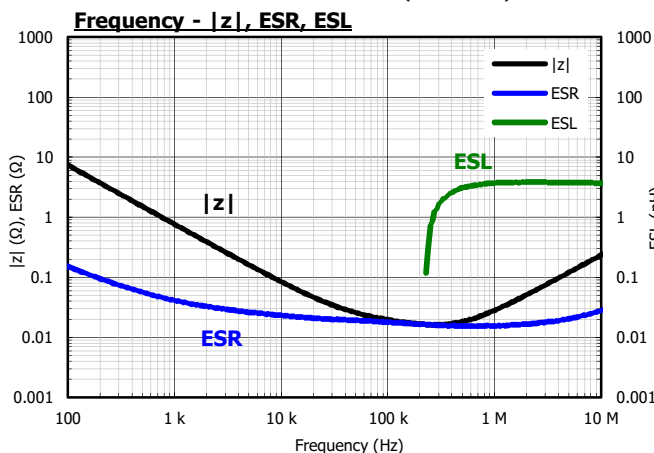
Size Code: F



	(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

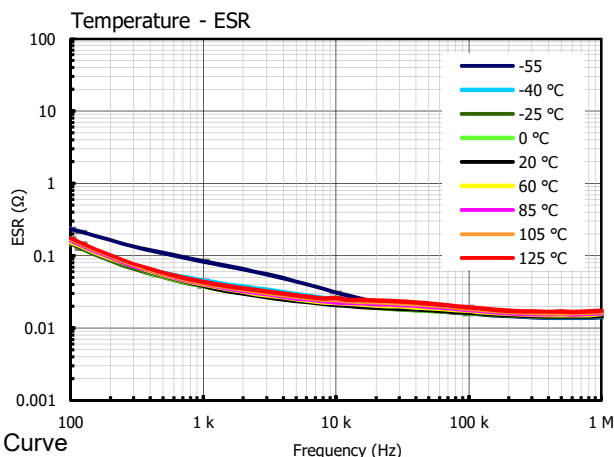
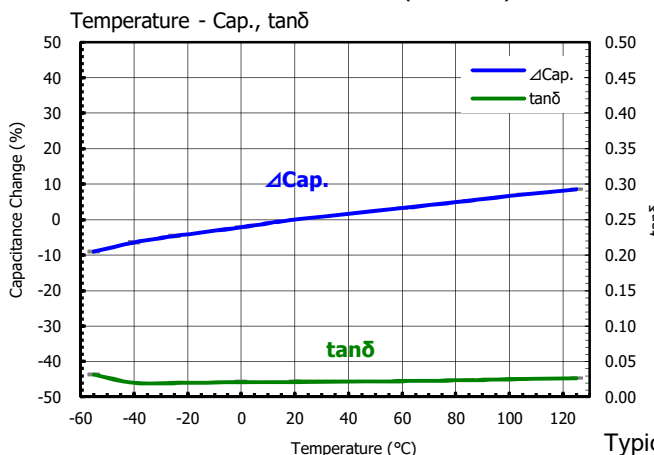
Frequency - |z|, ESR, ESL, Capacitance, tanδ Characteristics

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 ZKU series

Part Number: EEHZK1V391UP

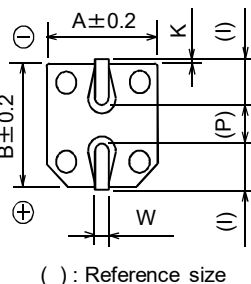
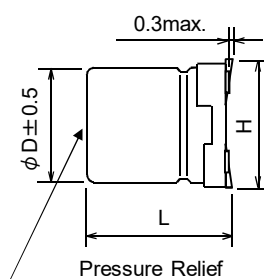
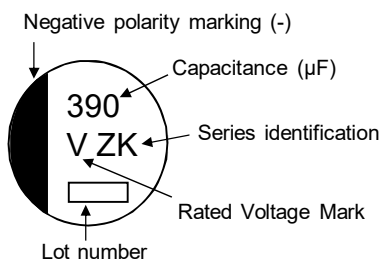
φ10×10.2 mm / 35 V / 390 μF / 125 °C, 4000 h

Category Temperature Range	-55 to 125 °C
Rated Voltage	35 V. DC
Nominal Capacitance	390 μF (at 120 Hz)
Capacitance Tolerance	±20 %

tanδ	0.12 max. (at 120 Hz)
DC Leakage Current	136.5 μA (0.01CV) max. (at R.V., After 2 min)
ESR	20 mΩ max. (at 100 kHz)
Ripple Current	2800 mArms max. (at 100 kHz, 125 °C)
Endurance	125 °C, 4000 h

Marking, Dimensions in mm (not to scale)

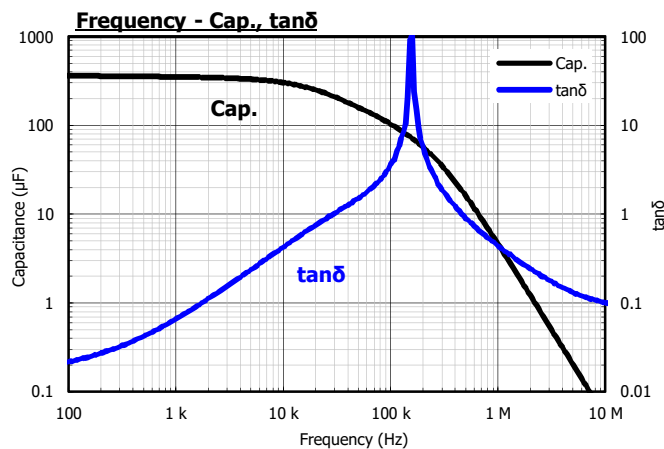
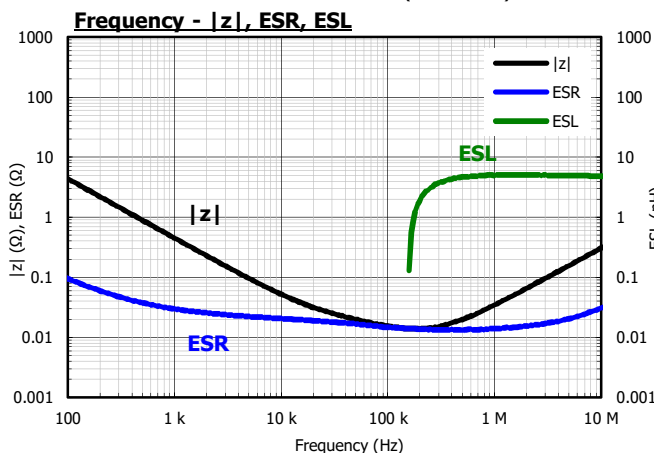
Size Code: G



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

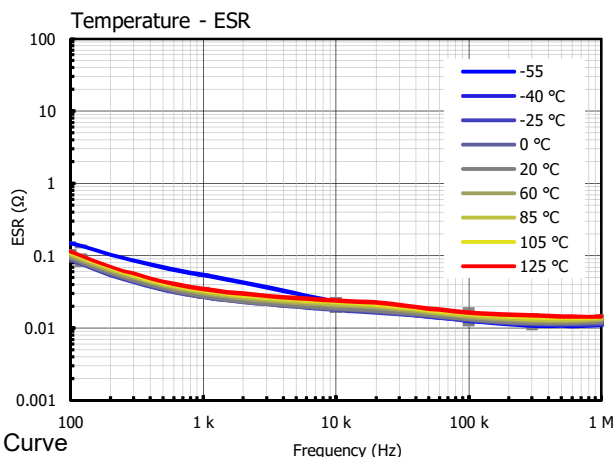
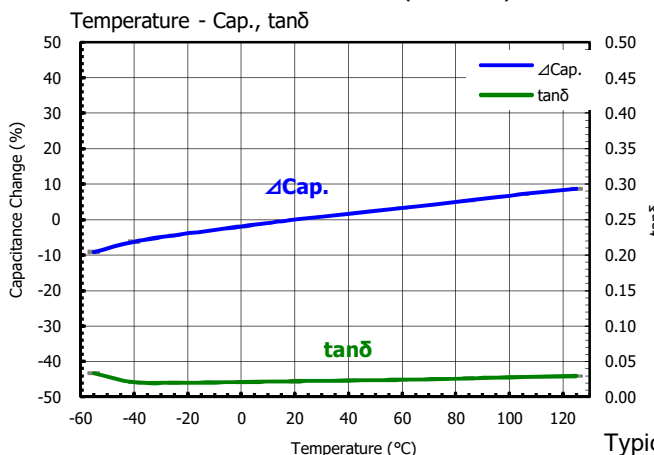
Frequency - |z|, ESR, ESL, Capacitance, tanδ Characteristics

Osc. Level: 0.5 Vrms (at no load)



Temperature - Capacitance, tanδ, ESR Characteristics

Osc. Level: 1.0 Vrms (at no load)



Typical Curve

Conductive Polymer Hybrid
Aluminum Electrolytic Capacitors

Technical Data ZKU Series

The first edition: July 16, 2019

Device Solutions Business Division
Industrial Solutions Company
Panasonic Corporation