

Jamicon Series : VQ

Teapo Series : VQ 125°C/2000hrs&Low ESR Series



- Endurance:125°C,2000hrs
- Recommended Applications:Automotive,Charger,New energy,Power Supply
- Corresponding product to RoHS

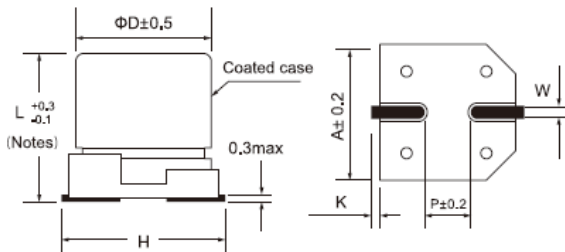
■ Specifications

Item	Characteristics	
Category Temperature Range	-55 ~ +125°C	
Rated Voltage Range	2.5~80VDC	
Rated Capacitance Range	22~ 1500 μF	
Capacitance Tolerance	± 20 % (120Hz , 20°C)	
Surge Voltage	Rated voltage (V) x 1.15	
Leakage Current (20°C)	Less than or equal to the value of Table , (After rated voltage applied for 2 minutes) I : Leakage Current (μ A) C : Capacitance(μ F) V : Rated Voltage Range(VDC)	
Dissipation Factor (MAX) (tan δ) (120Hz ,20°C)	WV	2.5~80
	tan δ	0.12
Endurance	After applying rated voltage for 2000 hours at 125°C , the capacitor shall meet the following requirement ◦	
	Appearance	No significant damage
	Capacitance Change	Within ±20% of the initial value
	Dissipation Factor	Not more than 150% of the initial specified value
	Equivalent Series Resistance	Not more than 150% of the initial specified value
Humidity Test	after subjecting 90 to 95% RH for 1000 hours at 60°C ◦ the capacitors shall meet the requirement as Endurance ◦	
Resistance to Soldering Heat *	Capacitance Change	Within ±10% of the initial value
	Dissipation Factor	Not more than 130% of the initial specified value
	Equivalent Series Resistance	Not more than 130% of the initial specified value
	Leakage Current	Not more than the initial specified value

* For any doubt about measured values, measure the leakage current again after the following voltage treatment ◦

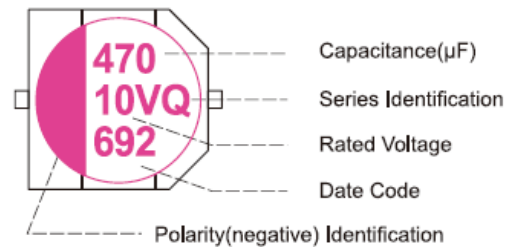
Voltage treatment: Applying DC rated voltage to the capacitors for 2 hours at 125°C ◦

■ Diagram of Dimensions



(Notes) Φ8 ~ Φ10&6.3X7.7=L±0.3

■ Marking : case with red printing



SIZE	Φ D x L	A	H(Max)	W	P	K
CA1	5x5.8	5.3	6.5	0.65±0.15	1.5±0.2	0.35+0.15/-0.2
EA1	6.3x5.8	6.6	7.8	0.65±0.15	1.8±0.2	0.35+0.15/-0.2
EA4	6.3x7.7	6.6	7.8	0.65±0.15	1.8±0.2	0.35+0.15/-0.2
GA6	8x10.4	8.3	10	0.9±0.2	3.1±0.2	0.7±0.2
HA5	10x10.2	10.3	12	0.9±0.2	4.6±0.2	0.7±0.2
HA8	10x12.2	10.3	12	0.9±0.2	4.6±0.2	0.7±0.2

■ Multiplier for Ripple Current

Frequency(HZ)	120 ≤ F < 1K	1K ≤ F < 10K	10K ≤ F < 100K	100K ≤ F ≤ 500K
Coefficient	0.05	0.30	0.70	1.00

Jamicon Series : VQ

Teapo Series : VQ

■ Dimensions, Rated Ripple Current, Equivalent Series Resistance

Rated (Surge) Voltage(V)	Capacitance (μ F)	SIZE Φ DxL(mm)	RIPPLE(mA/rms,100kHz)		ESR ($m\Omega$,20 $^{\circ}$ C 100kHz)	LC (μ A max/2min)	Rated (Surge) Voltage(V)	Capacitance (μ F)	SIZE Φ DxL(mm)	RIPPLE(mA/rms,100kHz)		ESR ($m\Omega$,20 $^{\circ}$ C 100kHz)	LC (μ A max/2min)	
			Tx : 125 $^{\circ}$ C	Tx : 105 $^{\circ}$ C						Tx : 125 $^{\circ}$ C	Tx : 105 $^{\circ}$ C			
2.5 (2.88)	220	6.3x5.8	790	2500	40	300	16(18.4)	47	6.3x5.8	500	1600	55	300	
	390	6.3x7.7	859	2720	30	300		82	6.3x7.7	764	2420	30	300	
	470	6.3x7.7	859	2720	30	300		100	6.3x7.7	764	2420	30	320	
	1000	8x10.4	1248	3950	25	500		150	8x10.4	1100	3490	25	480	
	1500	10x10.2	1264	4000	20	750		220	8x10.4	1100	3490	25	704	
10x12.2		1740	5500	20	750	270		8x10.4	1100	3490	25	864		
4(4.6)	100	6.3x5.8	445	2450	35	300		330	10x12.2	1560	5050	18	1056	
	330	6.3x7.7	837	2650	35	300		390	8x10.4	948	3000	25	1248	
	560	8x10.4	1250	3950	25	448		470	10x10.2	980	3100	20	1504	
	820	8x10.4	1250	3950	25	656			10x12.2	1600	5050	18	1504	
	1200	10x12.2	1738	5500	20	656		560	10x12.2	1600	5050	18	1792	
		10x10.2	1265	4000	20	960		680	10x12.2	1600	5050	18	2176	
		10x12.2	1738	5500	20	960		820	10x12.2	1600	5050	18	2624	
6.3(7.25)	47	5x5.8	436	1380	50	300		20(23)	22	6.3x5.8	520	1650	55	300
	68	6.3x5.8	758	2400	40	300			47	6.3x7.7	630	2000	50	300
	100	5x5.8	436	1380	50	300	100		8x10.4	1050	3320	30	480	
		6.3x5.8	758	2400	35	300	150		10x12.2	1333	4220	25	600	
	220	6.3x5.8	758	2400	35	300	25(28.75)	22	6.3x5.8	284	900	65	300	
		6.3x7.7	840	2650	30	300		6.3x7.7	568	1800	50	300		
	330	6.3x5.8	760	2400	35	415		47	6.3x5.8	410	1300	65	300	
		6.3x7.7	840	2650	35	415			6.3x7.7	568	1800	50	300	
	470	6.3x7.7	840	2650	30	592		68	6.3x7.7	568	1800	50	340	
		8x10.4	1140	3610	25	592		100	8x10.4	1050	3320	40	500	
	680	8x10.4	1140	3610	25	857		180	10x10.2	980	3100	35	900	
		10x10.2	1153	3650	20	857		220	8x10.4	1050	3320	40	1100	
	820	10x10.2	1153	3650	20	1033		270	10x10.2	1050	3320	35	1350	
		10x12.2	1740	5500	25	1033		330	10x12.2	1106	3500	33	1650	
	1000	8x10.4	1140	3610	26	1260	35(40.25)	22	6.3x5.8	568	1800	55	300	
		10x12.2	1740	5500	20	1260		47	6.3x7.7	695	2200	50	329	
	22	5x5.8	400	1270	50	300		100	8x10.4	820	2600	35	700	
33	5x5.8	400	1270	50	300	150	10x10.2	885	2800	35	1050			
47	5x5.8	400	1270	50	300	50(57.50)	22	6.3x7.7	632	2000	55	300		
56	6.3x5.8	710	2250	40	300		47	8x10.4	695	2200	50	470		
100	6.3x5.8	710	2250	40	300		100	10x12.2	790	2500	50	1000		
10(11.5)	100	6.3x7.7	808	2560	33	300	63(72.45)	33	8x10.4	474	1500	45	416	
		808	2560	33	300	56		10x10.2	568	1800	40	706		
	150	6.3x7.7	808	2560	35	300		100	10x12.2	805	2550	35	1260	
	390	8x10.4	955	3020	28	780	80(92.00)	47	10x10.2	711	2250	40	752	
	470	10x10.2	1106	3500	20	940			10x12.2	790	2500	35	752	
		10x12.2	1680	5300	20	940			560	10x12.2	1680	5300	18	1120
	560	10x12.2	1680	5300	18	1120	1000	10x12.2	1680	5300	18	2000		

Jamicon Series : VD

Teapo Series : VD Long Life20000hrs Series



- Endurance:105°C,20000hrs
- Recommended Applications:Power Supply,Projector,Network
- Corresponding product to RoHS

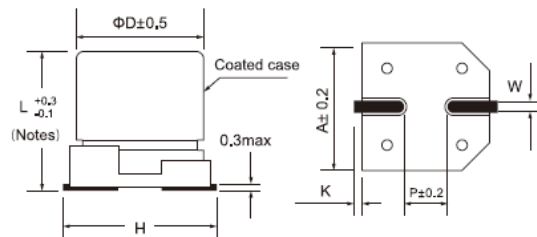
■ Specifications

Item	Characteristics	
Category Temperature Range	-55 ~ +105°C	
Rated Voltage Range	6.3~25VDC	
Rated Capacitance Range	22~ 1000 μ F	
Capacitance Tolerance	$\pm 20\%$ (120Hz, 20°C)	
Surge Voltage	Rated voltage (V) x 1.15	
Leakage Current (20°C)	Less than or equal to the value of Table , (After rated voltage applied for 2 minutes) I : Leakage Current (μ A) C : Capacitance(μ F) V : Rated Voltage Range(VDC)	
Dissipation Factor (MAX) (tan δ) (120Hz, 20°C)	WV	6.3~25
	tan δ	0.12
Endurance	After applying rated voltage for 20000 hours at 105°C, the capacitor shall meet the following requirement °	
	Appearance	No significant damage
	Capacitance Change	Within $\pm 20\%$ of the initial value
	Dissipation Factor	Not more than 150% of the initial specified value
	Equivalent Series Resistance	Not more than 150% of the initial specified value
Humidity Test	after subjecting 90 to 95% RH for 1000 hours at 60°C , the capacitors shall meet the requirement as Endurance °	
	Capacitance Change	Within $\pm 10\%$ of the initial value
	Dissipation Factor	Not more than 130% of the initial specified value
	Equivalent Series Resistance	Not more than 130% of the initial specified value
	Leakage Current	Not more than the initial specified value
Resistance to Soldering Heat *	Capacitance Change	Within $\pm 10\%$ of the initial value
	Dissipation Factor	Not more than 130% of the initial specified value
	Equivalent Series Resistance	Not more than 130% of the initial specified value
	Leakage Current	Not more than the initial specified value

*For any doubt about measured values, measure the leakage current again after the following voltage treatment °

Voltage treatment: Applying DC rated voltage to the capacitors for 2 hours at 105°C °

■ Diagram of Dimensions



■ Marking : case with red printing



SIZE	ΦD x L	A	H(Max)	W	P	K
EA1	6.3x5.8	6.6	7.8	0.65 \pm 0.15	1.8 \pm 0.2	0.35+0.15/-0.2
EA4	6.3x7.7	6.6	7.8	0.65 \pm 0.15	1.8 \pm 0.2	0.35+0.15/-0.2
GA6	8x10.4	8.3	10	0.9 \pm 0.2	3.1 \pm 0.2	0.7 \pm 0.2
HA5	10x10.2	10.3	12	0.9 \pm 0.2	4.6 \pm 0.2	0.7 \pm 0.2
HA8	10x12.2	10.3	12	0.9 \pm 0.2	4.6 \pm 0.2	0.7 \pm 0.2

■ Multiplier for Ripple Current

Frequency(HZ)	120 \leq F < 1K	1K \leq F < 10K	10K \leq F < 100K	100K \leq F \leq 500K
Coefficient	0.05	0.30	0.70	1.00

Jamicon Series : VD

Teapo Series : VD

■Dimensions, Rated Ripple Current, Equivalent Series Resistance

Rated (Surge) Voltage(V)	Capacitance (μ F)	SIZE Φ D x L (mm)	RIPPLE (mA/rms, 105 °C 100KHz)	ESR (m Ω , 20°C 100KHz)	LC (μ A max/2min)
6.3(7.25)	150	6.3x5.8	2000	55	300
	330	6.3x7.7	2400	50	415
	470	8x10.4	3000	40	592
	1000	10x10.2	4000	30	1260
10(11.5)	100	6.3x5.8	1800	55	300
	220	6.3x7.7	2200	45	440
	330	8x10.4	2500	40	660
	470	10x10.2	3200	40	940
16(18.4)	68	6.3x5.8	1800	70	300
	150	6.3x7.7	2000	50	480
	270	8x10.4	2800	40	864
	470	10x10.2	3000	35	1504
25(28.75)	22	6.3x5.8	800	95	300
	56	6.3x7.7	1100	75	300
	100	8x10.4	2500	60	500
	220	10x10.2	2800	55	1100
	330	10x12.2	3000	50	1650

Jamicon Series : VA

Teapo Series : VA

Long Life15000hrs Series



- Endurance:105°C,15000hrs
- Recommended Applications:Power Supply,Projector,Network,Printer
- Corresponding product to RoHS

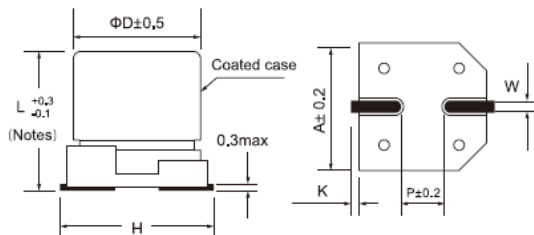
Specifications

Item	Characteristics	
Category Temperature Range	-55 ~ +105°C	
Rated Voltage Range	6.3~50VDC	
Rated Capacitance Range	47~ 1500 μF	
Capacitance Tolerance	± 20 % (120Hz , 20°C)	
Surge Voltage	Rated voltage (V) x 1.15	
Leakage Current (20°C)	Less than or equal to the value of Table , (After rated voltage applied for 2 minutes) I : Leakage Current (μ A) C : Capacitance(μ F) V : Rated Voltage Range(VDC)	
Dissipation Factor (MAX) (tan δ) (120Hz ,20°C)	WV	6.3~50
	tan δ	0.12
Endurance	After applying rated voltage for 15000 hours at 105°C, the capacitor shall meet the following requirement .	
	Appearance	No significant damage
	Capacitance Change	Within ±20% of the initial value
	Dissipation Factor	Not more than 150% of the initial specified value
	Equivalent Series Resistance	Not more than 150% of the initial specified value
Humidity Test	after subjecting 90 to 95% RH for 1000 hours at 60°C , the capacitors shall meet the requirement as Endurance .	
	Capacitance Change	Within ±10% of the initial value
	Dissipation Factor	Not more than 130% of the initial specified value
	Equivalent Series Resistance	Not more than 130% of the initial specified value
	Leakage Current	Not more than the initial specified value
Resistance to Soldering Heat *	Capacitance Change	Within ±10% of the initial value
	Dissipation Factor	Not more than 130% of the initial specified value
	Equivalent Series Resistance	Not more than 130% of the initial specified value
	Leakage Current	Not more than the initial specified value

*For any doubt about measured values, measure the leakage current again after the following voltage treatment .

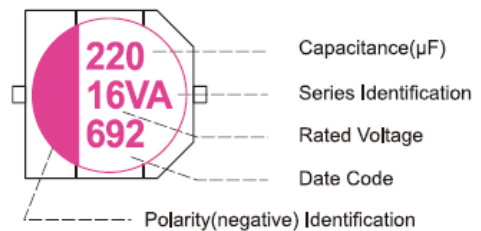
Voltage treatment: Applying DC rated voltage to the capacitors for 2 hours at 105°C .

Diagram of Dimensions



(Notes) Φ8 ~ Φ10&6.3X7.7=L±0.3

Marking : case with red printing



SIZE	Φ D x L	A	H(Max)	W	P	K
EA1	6.3x5.8	6.6	7.8	0.65±0.15	1.8±0.2	0.35+0.15/-0.2
EA4	6.3x7.7	6.6	7.8	0.65±0.15	1.8±0.2	0.35+0.15/-0.2
GA9	8x9.0	8.3	10	0.9±0.2	3.1±0.2	0.7±0.2
GA6	8x10.4	8.3	10	0.9±0.2	3.1±0.2	0.7±0.2
HA5	10x10.2	10.3	12	0.9±0.2	4.6±0.2	0.7±0.2
HA8	10x12.2	10.3	12	0.9±0.2	4.6±0.2	0.7±0.2

Multiplier for Ripple Current

Frequency(HZ)	120 ≤ F < 1K	1K ≤ F < 10K	10K ≤ F < 100K	100K ≤ F ≤ 500K
Coefficient	0.05	0.30	0.70	1.00

Jamicon Series : VA

Teapo Series : VA

■Dimensions, Rated Ripple Current, Equivalent Series Resistance

Rated (Surge) Voltage(V)	Capacitance (μ F)	SIZE Φ DxL(mm)	RIPPLE (mA/rms,105 °C 100KHz)	ESR (m Ω ,20°C 100KHz)	LC (μ A max/2min)
6.3(7.25)	220	6.3x5.8	2400	50	300
	470	6.3x7.7	2600	45	592
	820	8x10.4	3200	35	1033
	1500	10x10.2	4500	25	1890
10(11.5)	120	6.3x5.8	2000	45	300
	330	6.3x7.7	2400	40	660
	470	8x10.4	2800	35	940
	820	10x10.2	3500	35	1640
16(18.4)	100	6.3x5.8	2000	50	320
	180	6.3x7.7	2500	40	576
	330	8x10.4	3000	35	1056
	470	10x10.2	3200	30	1504
25(28.75)	47	6.3x5.8	1100	90	300
	100	6.3x7.7	1800	70	500
	220	8x10.4	2600	55	1100
	330	10x12.2	2800	50	1650
35 (40.25)	100	8x9	1500	40	700
		8x10.4	1800	30	700
	220	10x10.2	2000	25	1540
	270	10x12.2	2500	24	1890
50 (57.5)	47	8x10.4	1700	50	470
	100	10x10.2	1800	45	1000
	150	10x12.2	2100	42	1500

Jamicon Series : VS

Teapo Series : VS

Long Life & low ESR Series



- Endurance:105°C,5000hrs
- Recommended Applications:Network,Smart Meter,Router,Printer
- Corresponding product to RoHS

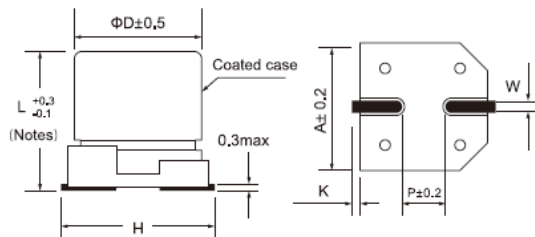
Specifications

Item	Characteristics	
Category Temperature Range	-55 ~ +105°C	
Rated Voltage Range	4~80VDC	
Rated Capacitance Range	22~ 470 μF	
Capacitance Tolerance	± 20 % (120Hz , 20°C)	
Surge Voltage	Rated voltage (V) x 1.15	
Leakage Current (20°C)	Less than or equal to the value of Table , (After rated voltage applied for 2 minutes) I : Leakage Current (μ A) C : Capacitance(μ F) V : Rated Voltage Range(VDC)	
Dissipation Factor (MAX) (tan δ) (120Hz ,20°C)	WV	4~80
	tan δ	0.12
Endurance	After applying rated voltage for 5000 hours at 105°C, the capacitor shall meet the following requirement °	
	Appearance	No significant damage
	Capacitance Change	Within ±20% of the initial value
	Dissipation Factor	Not more than 150% of the initial specified value
	Equivalent Series Resistance	Not more than 150% of the initial specified value
Humidity Test	after subjecting 90 to 95% RH for 1000 hours at 60°C , the capacitors shall meet the requirement as Endurance °	
	Capacitance Change	Within ±10% of the initial value
	Dissipation Factor	Not more than 130% of the initial specified value
	Equivalent Series Resistance	Not more than 130% of the initial specified value
	Leakage Current	Not more than the initial specified value
Resistance to Soldering Heat *	Capacitance Change	Within ±10% of the initial value
	Dissipation Factor	Not more than 130% of the initial specified value
	Equivalent Series Resistance	Not more than 130% of the initial specified value
	Leakage Current	Not more than the initial specified value

*For any doubt about measured values, measure the leakage current again after the following voltage treatment °

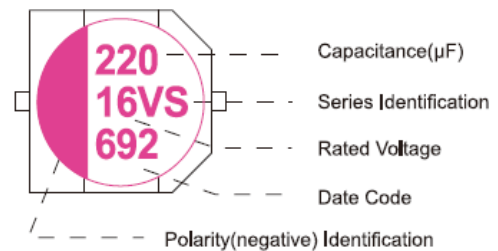
Voltage treatment: Applying DC rated voltage to the capacitors for 2 hours at 105°C °

Diagram of Dimensions



(Notes) Φ8 ~ Φ10&6.3X7.7=L±0.3

Marking : case with red printing



SIZE	Φ D x L	A	H(Max)	W	P	K
EA1	6.3x5.8	6.6	7.8	0.65±0.15	1.8±0.2	0.35+0.15/-0.2
EA4	6.3x7.7	6.6	7.8	0.65±0.15	1.8±0.2	0.35+0.15/-0.2
GA6	8x10.4	8.3	10	0.9±0.2	3.1±0.2	0.7±0.2
HA5	10x10.2	10.3	12	0.9±0.2	4.6±0.2	0.7±0.2
HA8	10x12.2	10.3	12	0.9±0.2	4.6±0.2	0.7±0.2

Multiplier for Ripple Current

Frequency(HZ)	120 ≤ F < 1K	1K ≤ F < 10K	10K ≤ F < 100K	100K ≤ F ≤ 500K
Coefficient	0.05	0.30	0.70	1.00

Jamicon Series : VS

Teapo Series : VS

■Dimensions, Rated Ripple Current, Equivalent Series Resistance

Rated (Surge) Voltage(V)	Capacitance (μ F)	SIZE Φ DxL(mm)	RIPPLE (mA/rms,105 $^{\circ}$ C 100kHz)	ESR (m Ω ,20 $^{\circ}$ C 100kHz)	LC (μ A max/2min)
4 (4.6)	150	6.3x5.8	2570	22	300
	330	6.3x5.8	2800	22	300
	470	6.3x7.7	2800	20	376
6.3(7.25)	100	6.3x5.8	2800	22	300
	120	6.3x5.8	2800	22	300
	220	6.3x5.8	2800	22	300
10(11.5)	470	10x10.2	4130	20	592
	47	6.3x5.8	2300	27	300
	56	6.3x5.8	2300	27	300
16(18.4)	68	6.3x5.8	2300	27	300
	120	6.3x5.8	2300	27	300
	470	8x10.4	3000	22	940
20(23)	39	6.3x5.8	2200	30	300
	68	6.3x5.8	2200	30	300
	330	10x12.2	3800	14	1056
20(23)	27	6.3x5.8	2450	40	300
	180	10x10.2	3200	25	720

Rated (Surge) Voltage(V)	Capacitance (μ F)	SIZE Φ DxL(mm)	RIPPLE (mA/rms,105 $^{\circ}$ C 100kHz)	ESR (m Ω ,20 $^{\circ}$ C 100kHz)	LC (μ A max/2min)
25(28.75)	100	6.3x7.7	2200	50	500
	150	8x10.4	2800	30	750
	220	10x10.2	2500	38	1100
	330	10x12.2	2800	30	1650
35(40.25)	47	6.3x5.8	1000	80	329
	68	6.3x7.7	2000	60	476
	150	8x10.4	2500	30	1050
	270	10x12.2	3000	28	1890
50(57.50)	22	6.3x7.7	1800	60	300
	47	8x10.4	2000	55	470
	100	10x12.2	2100	55	1000
63(72.45)	33	8x10.4	1200	50	416
	56	10x10.2	1500	45	706
	100	10x12.2	2000	35	1260
80(92.00)	47	10x10.2	2000	45	752
	68	10x12.2	2200	40	1088

Jamicon Series : VB

Teapo Series : VB

High capacitance & low ESR Series



- Endurance:105°C,2000hrs
- Recommended Applications: New energy,Network,Home appliance,Motherboard
- Corresponding product to RoHS

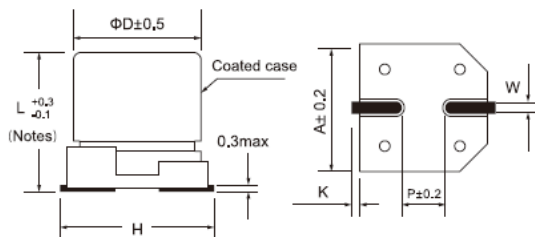
■ Specifications

Item	Characteristics	
Category Temperature Range	-55 ~ +105°C	
Rated Voltage Range	2.5~80VDC	
Rated Capacitance Range	22~ 1200 μ F	
Capacitance Tolerance	$\pm 20\%$ (120Hz, 20°C)	
Surge Voltage	Rated voltage (V) x 1.15	
Leakage Current (20°C)	Less than or equal to the value of Table , (After rated voltage applied for 2 minutes) I : Leakage Current (μ A) C : Capacitance(μ F) V : Rated Voltage Range(VDC)	
Dissipation Factor (MAX) (tan δ) (120Hz, 20°C)	WV	2.5~80
	tan δ	0.12
Endurance	After applying rated voltage for 2000 hours at 105°C, the capacitor shall meet the following requirement ◦	
	Appearance	No significant damage
	Capacitance Change	Within $\pm 20\%$ of the initial value
	Dissipation Factor	Not more than 150% of the initial specified value
	Equivalent Series Resistance	Not more than 150% of the initial specified value
Humidity Test	after subjecting 90 to 95% RH for 1000 hours at 60°C, the capacitors shall meet the requirement as Endurance ◦	
	Capacitance Change	Within $\pm 10\%$ of the initial value
	Dissipation Factor	Not more than 130% of the initial specified value
	Equivalent Series Resistance	Not more than 130% of the initial specified value
	Leakage Current	Not more than the initial specified value
Resistance to Soldering Heat *	Capacitance Change	Within $\pm 10\%$ of the initial value
	Dissipation Factor	Not more than 130% of the initial specified value
	Equivalent Series Resistance	Not more than 130% of the initial specified value
	Leakage Current	Not more than the initial specified value

* For any doubt about measured values, measure the leakage current again after the following voltage treatment ◦

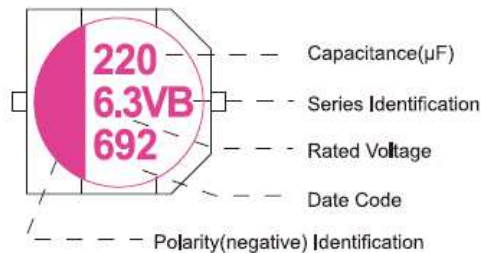
Voltage treatment: Applying DC rated voltage to the capacitors for 2 hours at 105°C ◦

■ Diagram of Dimensions



(Notes) $\Phi 8 \sim \Phi 10 \& 6.3 \times 7.7 = L \pm 0.3$

■ Marking : case with red printing



SIZE	$\Phi D \times L$	A	H(Max)	W	P	K
EA1	6.3x5.8	6.6	7.8	0.65 \pm 0.15	1.8 \pm 0.2	0.35+0.15/-0.2
EA4	6.3x7.7	6.6	7.8	0.65 \pm 0.15	1.8 \pm 0.2	0.35+0.15/-0.2
GA6	8x10.4	8.3	10	0.9 \pm 0.2	3.1 \pm 0.2	0.7 \pm 0.2
HA5	10x10.2	10.3	12	0.9 \pm 0.2	4.6 \pm 0.2	0.7 \pm 0.2
HA8	10x12.2	10.3	12	0.9 \pm 0.2	4.6 \pm 0.2	0.7 \pm 0.2

■ Multiplier for Ripple Current

Frequency(HZ)	120 \leq F < 1K	1K \leq F < 10K	10K \leq F < 100K	100K \leq F \leq 500K
Coefficient	0.05	0.30	0.70	1.00

Jamicon Series : VB

Teapo Series : VB

■ Dimensions, Rated Ripple Current, Equivalent Series Resistance

Rated (Surge) Voltage(V)	Capacitance (μ F)	SIZE Φ DxL(mm)	RIPPLE (mA/rms,105 $^{\circ}$ C 100KHz)	ESR (m Ω ,20 $^{\circ}$ C 100KHz)	LC (μ A max/2min)
2.5 (2.88)	330	6.3x5.8	3160	15	300
	390	6.3x5.8	3160	15	300
	470	6.3x5.8	3160	15	300
	560	6.3x5.8	3500	16	300
		6.3x7.7	3600	13	300
820	8x10.4	4210	12	410	
4(4.6)	270	6.3x5.8	3160	15	300
	330	6.3x5.8	3160	15	300
	470	8x10.4	4520	15	376
	560	8x10.4	4520	15	448
6.3(7.25)	100	6.3x5.8	2500	24	300
	120	6.3x5.8	2500	24	300
	150	6.3x5.8	3160	22	300
	220	6.3x5.8	3160	22	300
	330	6.3x5.8	3390	22	415
		6.3x7.7	3500	18	415
		8x10.4	4210	15	415
	470	6.3x7.7	3500	18	592
		8x10.4	4210	15	592
		8x10.4	4210	15	705
	560	10x10.2	5025	12	705
		8x10.4	4210	15	1033
	820	10x10.2	5025	12	1033
		1200	10x10.2	5025	12
	10(11.5)	120	6.3x5.8	2600	22
150		6.3x7.7	2880	21	300
330		8x10.4	4000	17	660
470		10x10.2	5025	12	940

Rated (Surge) Voltage(V)	Capacitance (μ F)	SIZE Φ DxL(mm)	RIPPLE (mA/rms,105 $^{\circ}$ C 100KHz)	ESR (m Ω ,20 $^{\circ}$ C 100KHz)	LC (μ A max/2min)	
16(18.4)	68	6.3x5.8	2440	25	300	
		6.3x7.7	2700	24	300	
	100	6.3x5.8	2440	25	320	
		6.3x7.7	2700	24	320	
	180	6.3x7.7	3320	22	576	
		8x10.4	3890	18	576	
	16(18.4)	220	8x10.4	3890	18	704
		270	8x10.4	3890	18	864
330		10x10.2	4350	16	1056	
470		10x12.2	6100	10	1504	
		25(28.8)	33	6.3x7.7	2500	45
35(40.25)	47	6.3x7.7	2500	45	300	
		22	6.3x5.8	1800	55	300
	100	6.3x7.7	2200	50	329	
		8x10.4	2600	35	700	
50(57.50)	150	10x10.2	2800	35	1050	
		22	6.3x7.7	2000	55	300
	47	8x10.4	2200	50	470	
100		10x12.2	2500	50	1000	
63(72.45)	33	8x10.4	1500	45	416	
		56	10x10.2	1800	40	706
	100	10x12.2	2550	35	1260	
80(92.00)	47	10x10.2	2250	40	752	
		10x12.2	2500	35	752	

Jamicon Series : VC

Teapo Series : VC

Vehclar Special



- Endurance:105°C,2000hrs
- Recommended Applications: Automotive
- Corresponding product to RoHS

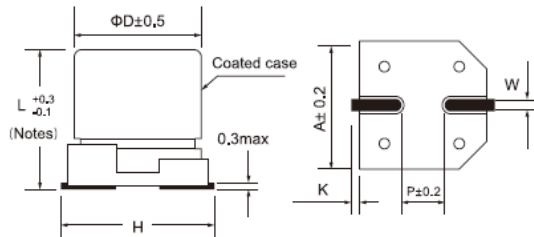
Specifications

Item	Characteristics	
Category Temperature Range	-55 ~ +105°C	
Rated Voltage Range	2.5~25VDC	
Rated Capacitance Range	22~ 1200 μ F	
Capacitance Tolerance	$\pm 20\%$ (120Hz, 20°C)	
Surge Voltage	Rated voltage (V) x 1.15	
Leakage Current (20°C)	Less than or equal to the value of Table , (After rated voltage applied for 2 minutes) I : Leakage Current (μ A) C : Capacitance(μ F) V : Rated Voltage Range(VDC)	
Dissipation Factor (MAX) (tan δ) (120Hz, 20°C)	WV	2.5~25
	tan δ	0.12
Endurance	After applying rated voltage for 2000 hours at 105°C, the capacitor shall meet the following requirement .	
	Appearance	No significant damage
	Capacitance Change	Within $\pm 20\%$ of the initial value
	Dissipation Factor	Not more than 150% of the initial specified value
	Equivalent Series Resistance	Not more than 150% of the initial specified value
Humidity Test	after subjecting 90 to 95% RH for 1000 hours at 60°C , the capacitors shall meet the requirement as Endurance .	
	Capacitance Change	Within $\pm 10\%$ of the initial value
	Dissipation Factor	Not more than 130% of the initial specified value
	Equivalent Series Resistance	Not more than 130% of the initial specified value
	Leakage Current	Not more than the initial specified value
Resistance to Soldering Heat *	Capacitance Change	Within $\pm 10\%$ of the initial value
	Dissipation Factor	Not more than 130% of the initial specified value
	Equivalent Series Resistance	Not more than 130% of the initial specified value
	Leakage Current	Not more than the initial specified value

*For any doubt about measured values, measure the leakage current again after the following voltage treatment .

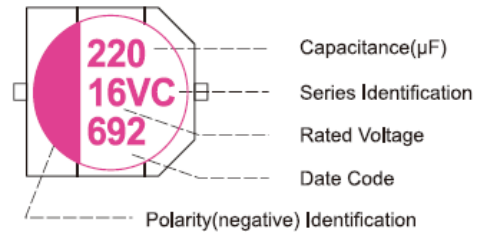
Voltage treatment: Applying DC rated voltage to the capacitors for 2 hours at 105°C .

Diagram of Dimensions



(Notes) $\Phi 8 \sim \Phi 10 \& 6.3 \times 7.7 = L \pm 0.3$

Marking : case with red printing



SIZE	$\Phi D \times L$	A	H(Max)	W	P	K
CA1	5x5.8	5.3	6.5	0.65 \pm 0.15	1.5 \pm 0.2	0.35+0.15/-0.2
EA1	6.3x5.8	6.6	7.8	0.65 \pm 0.15	1.8 \pm 0.2	0.35+0.15/-0.2
EA4	6.3x7.7	6.6	7.8	0.65 \pm 0.15	1.8 \pm 0.2	0.35+0.15/-0.2
GA6	8x10.4	8.3	10	0.9 \pm 0.2	3.1 \pm 0.2	0.7 \pm 0.2
HA5	10x10.2	10.3	12	0.9 \pm 0.2	4.6 \pm 0.2	0.7 \pm 0.2
HA8	10x12.2	10.3	12	0.9 \pm 0.2	4.6 \pm 0.2	0.7 \pm 0.2

Multiplier for Ripple Current

Frequency(HZ)	120 \leq F < 1K	1K \leq F < 10K	10K \leq F < 100K	100K \leq F \leq 500K
Coefficient	0.05	0.30	0.70	1.00

Jamicon Series : VC

Teapo Series : VC

■Dimensions, Rated Ripple Current, Equivalent Series Resistance

Rated (Surge) Voltage(V)	Capacitance (μ F)	SIZE Φ DxL(mm)	RIPPLE (mA/rms,105 $^{\circ}$ C 100KHz)	ESR (m Ω ,20 $^{\circ}$ C 100KHz)	LC (μ A max/2min)
2.5 (2.88)	180	6.3x5.8	2200	25	300
	220	6.3x5.8	2500	25	300
	390	6.3x7.7	2720	23	300
	470	6.3x7.7	2720	23	300
4(4.6)	100	6.3x5.8	2450	26	300
	150	6.3x5.8	2450	26	300
	330	6.3x7.7	2650	25	300
	560	8x10.4	3950	18	448
	820	8x10.4	3950	18	656
	1200	10x10.2	4000	12	960
6.3(7.25)	100	5x5.8	1380	35	300
		6.3x5.8	2400	27	300
	120	6.3x5.8	2400	27	300
		6.3x5.8	2400	27	300
	330	6.3x5.8	2400	27	415
		6.3x7.7	2650	25	415
	470	6.3x7.7	2650	25	592
		8x10.4	3610	21	592
	680	8x10.4	3610	21	857
		10x10.2	3650	12	857
	820	10x10.2	3650	12	1033
		10x12.2	5500	10	1033
1000	8x10.4	3610	21	1260	
	10x12.2	5500	10	1260	
10(11.5)	22	5x5.8	1270	40	300
	33	5x5.8	1270	40	300
	47	5x5.8	1270	40	300
	56	6.3x5.8	2250	31	300
	100	6.3x5.8	2250	31	300
	150	6.3x7.7	2560	27	300
	390	8x10.4	3020	22	780
	470	10x10.2	3500	14	940
	560	10x12.2	5300	12	1120
	1000	10x12.2	5300	13	2000
16(18.4)	22	5x5.8	1210	90	300
	47	6.3x5.8	1600	50	300
	82	6.3x7.7	2420	30	300
	100	6.3x7.7	2420	30	320
	120	6.3x7.7	2420	30	384
	150	8x10.4	3490	23	480
	180	8x10.4	3490	23	576
	220	8x10.4	3490	23	704
	270	8x10.4	3490	23	864
	330	10x10.2	3100	16	1056
	330	10x12.2	5050	14	1056
	470	10x12.2	5050	14	1504
	560	10x12.2	5050	14	1792
	680	10x12.2	5050	14	2176
	820	10x12.2	5050	14	2624
	20(23)	22	6.3x5.8	1650	50
47		6.3x7.7	2000	45	300
100		8x10.4	3320	24	480
150		10x12.2	4220	21	600
25(28.75)	22	6.3x5.8	900	65	300
		6.3x7.7	1800	50	300
	27	6.3x5.8	1270	60	300
		6.3x7.7	1800	45	300
	68	6.3x7.7	1800	45	340
	100	8x10.4	3320	35	500
	150	8x10.4	3320	35	750
	180	10x10.2	3100	30	900
	220	8x10.4	3320	35	1100
	270	10x10.2	3320	30	1350
330	10x12.2	3500	28	1650	

Jamicon Series : VP

Teapo Series : VP

Standard Series



- Endurance:105°C,2000hrs
- Recommended Applications:Automotive,Smart Meter,Panel,Audio
- Corresponding product to RoHS

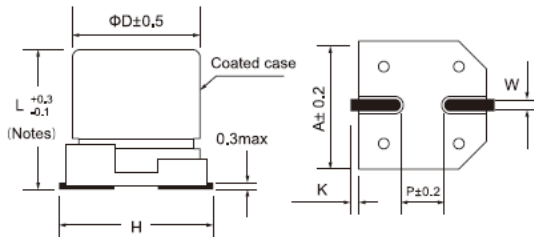
■ Specifications

Item	Characteristics	
Category Temperature Range	-55 ~ +105°C	
Rated Voltage Range	2.5~25VDC	
Rated Capacitance Range	22~ 1500 μ F	
Capacitance Tolerance	$\pm 20\%$ (120Hz, 20°C)	
Surge Voltage	Rated voltage (V) x 1.15	
Leakage Current (20°C)	Less than or equal to the value of Table , (After rated voltage applied for 2 minutes) I : Leakage Current (μ A) C : Capacitance(μ F) V : Rated Voltage Range(VDC)	
Dissipation Factor (MAX) (tan δ) (120Hz, 20°C)	WV	2.5~25
	tan δ	0.12
Endurance	After applying rated voltage for 2000 hours at 105°C, the capacitor shall meet the following requirement ◦	
	Appearance	No significant damage
	Capacitance Change	Within $\pm 20\%$ of the initial value
	Dissipation Factor	Not more than 150% of the initial specified value
	Equivalent Series Resistance	Not more than 150% of the initial specified value
Humidity Test	after subjecting 90 to 95% RH for 1000 hours at 60°C, the capacitors shall meet the requirement as Endurance ◦	
	Capacitance Change	Within $\pm 10\%$ of the initial value
	Dissipation Factor	Not more than 130% of the initial specified value
	Equivalent Series Resistance	Not more than 130% of the initial specified value
	Leakage Current	Not more than the initial specified value
Resistance to Soldering Heat *	Capacitance Change	Within $\pm 10\%$ of the initial value
	Dissipation Factor	Not more than 130% of the initial specified value
	Equivalent Series Resistance	Not more than 130% of the initial specified value
	Leakage Current	Not more than the initial specified value

* For any doubt about measured values, measure the leakage current again after the following voltage treatment ◦

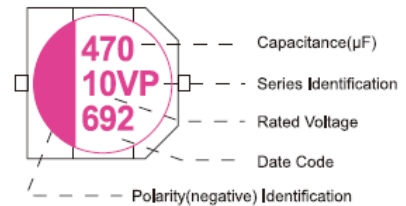
Voltage treatment: Applying DC rated voltage to the capacitors for 2 hours at 105°C ◦

■ Diagram of Dimensions



(Notes) $\Phi 8 \sim \Phi 10 \& 6.3 \times 7.7 = L \pm 0.3$

■ Marking : case with red printing



SIZE	$\Phi D \times L$	A	H(Max)	W	P	K
CA1	5x5.8	5.3	6.5	0.65 \pm 0.15	1.5 \pm 0.2	0.35+0.15/-0.2
EA1	6.3x5.8	6.6	7.8	0.65 \pm 0.15	1.8 \pm 0.2	0.35+0.15/-0.2
EA4	6.3x7.7	6.6	7.8	0.65 \pm 0.15	1.8 \pm 0.2	0.35+0.15/-0.2
GA6	8x10.4	8.3	10	0.9 \pm 0.2	3.1 \pm 0.2	0.7 \pm 0.2
HA5	10x10.2	10.3	12	0.9 \pm 0.2	4.6 \pm 0.2	0.7 \pm 0.2
HA8	10x12.2	10.3	12	0.9 \pm 0.2	4.6 \pm 0.2	0.7 \pm 0.2

■ Multiplier for Ripple Current

Frequency(HZ)	120 \leq F < 1K	1K \leq F < 10K	10K \leq F < 100K	100K \leq F \leq 500K
Coefficient	0.05	0.30	0.70	1.00

Jamicon Series : VP

Teapo Series : VP

■ Dimensions, Rated Ripple Current, Equivalent Series Resistance

Rated (Surge) Voltage(V)	Capacitance (μ F)	SIZE Φ DxL(mm)	RIPPLE (mA/rms,105 $^{\circ}$ C 100KHz)	ESR (m Ω ,20 $^{\circ}$ C 100KHz)	LC (μ A max/2min)	Rated (Surge) Voltage(V)	Capacitance (μ F)	SIZE Φ DxL(mm)	RIPPLE (mA/rms,105 $^{\circ}$ C 100KHz)	ESR (m Ω ,20 $^{\circ}$ C 100KHz)	LC (μ A max/2min)	
2.5 (2.88)	180	5x5.8	1970	30	300	10(11.5)	150	6.3x7.7	2560	27	300	
		6.3x5.8	2200	25	300			390	8x10.4	3020	22	780
	220	6.3x5.8	2500	25	300		470		10x10.2	3500	14	940
		6.3x7.7	2720	23	300			10x12.2	5300	12	940	
	470	6.3x7.7	2720	23	300		560	10x12.2	5300	12	1120	
		1000	8x10.4	3950	18			500	1000	10x12.2	5300	13
	1200	10x10.2	4000	12	600		16(18.4)	22		5x5.8	1210	90
			10x10.2	4000	13			750	33	6.3x5.8	2050	37
10x12.2		5500	12	750	39	6.3x5.8		2050	37	300		
4(4.6)	100	6.3x5.8	2450	26	300	47		6.3x5.8	1600	50	300	
		150	6.3x5.8	2450	26	300		82	6.3x7.7	2420	30	300
	330	6.3x7.7	2650	25	300	100		6.3x7.7	2420	30	320	
		560	8x10.4	3950	18	448		120	6.3x7.7	2420	30	384
	820	8x10.4	3950	18	656	150		8x10.4	3490	23	480	
		10x12.2	5500	10	656	180		8x10.4	3490	23	576	
	1200	10x10.2	4000	12	960	20(23)		220	8x10.4	3490	23	704
		10x12.2	5500	10	960				10x12.2	5050	14	704
6.3(7.25)	47	5x5.8	1380	35	300			270	8x10.4	3490	23	864
		68	6.3x5.8	2400	27		300	330	10x10.2	3100	16	1056
	82	6.3x5.8	2400	27	300		330	10x12.2	5050	14	1056	
		100	5x5.8	1380	35		300	390	8x10.4	3000	23	1248
	120	6.3x5.8	2400	27	300		470		10x10.2	3100	16	1504
		220	6.3x5.8	2400	27			300	10x12.2	5050	14	1504
	330	6.3x7.7	2650	25	300		560	10x12.2	5050	14	1792	
		6.3x5.8	2400	27	415		680	10x12.2	5050	14	2176	
	470	6.3x7.7	2650	25	415		25(28.75)	820	10x12.2	5050	14	2624
		6.3x7.7	2650	25	415				22	6.3x5.8	900	65
	680	6.3x7.7	2650	25	592	47		6.3x7.7		1800	50	300
		8x10.4	3610	21	592			6.3x5.8	1270	60	300	
820	8x10.4	3610	21	857	68	6.3x7.7		1800	45	300		
	10x10.2	3650	12	857		6.3x7.7		1800	45	340		
820	8x10.4	3610	21	1033	100	8x10.4		3320	35	500		
	10x10.2	3650	12	1033	150	8x10.4		3320	35	750		
1000	10x12.2	5500	10	1033		180		10x10.2	3100	30	900	
	1000	8x10.4	3610	21	1260			220	8x9	2500	45	1100
10x12.2		5500	10	1260	8x10.4	3320			35	1100		
10(11.5)	22	5x5.8	1270	40	300	270		10x10.2	3320	30	1350	
		33	5x5.8	1270	40		300	330	10x12.2	3500	28	1650
	47	5x5.8	1270	40	300	10(11.5)	150		5x5.8	1270	40	300
		6.3x5.8	2250	31	300			33	5x5.8	1270	40	300
	56	6.3x5.8	2250	31	300		47		6.3x5.8	2250	31	300
		6.3x5.8	2250	31	300			100	6.3x7.7	2560	27	300
100	6.3x5.8	2250	31	300	100		6.3x7.7		2560	27	300	
	6.3x7.7	2560	27	300								