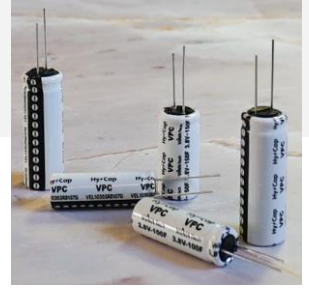


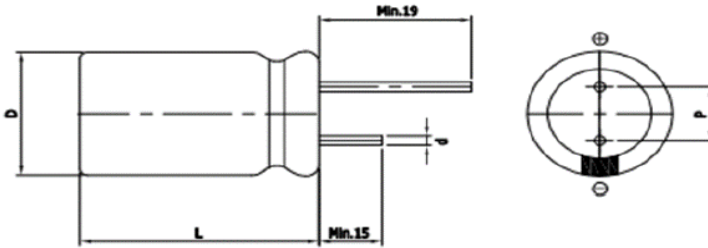
## Features

### VPC (Vina Pulse Capacitor)

- Low Self Discharge
- High Operating Voltage
- Wide Operating Temperature Range
- High Capacitance



## Drawing



Size	0820
D (Φ)	8.0 +1.0 Max
L (mm)	20.0 ±1.5
d (Φ)	0.8 ±0.1
P (mm)	3.5 ±0.5

## Specification

Item	Spec. value	Test methods
Operating Voltage Range	2.5V to 3.8V (2.5V to 3.5V @ 85°C)	
Operating Temp. Range	-25 ~ 85°C (-40 ~ 85°C @ in Li/SOCL2 battery system)	
Load Life @ 70°C	Capacitance : ± 30% of initial value ESR : Less than 200% of initial spec. Appearance : No abnormality	Temperature: 70±2°C, 85±2°C Time : 1,000 hours Voltage : 3.8V, 3.5V and measure the floating charge characteristics after returning to normal temperature and humidity.
Load Life @ 85°C		
Heat cycle characteristics		Temperature: 85±2°C, -40±2°C Duration: 30 min Cycle Numbers: 100 cycles
Cycle Life		Temperature : 25±2°C Cycle Number : 50,000 Discharge Current : 20 C-rate Cut-off Voltage : 2.5V (DOD 100%)
Low Temperature characteristics	Capacitance : ± 50% of initial value ESR : Less than 20 times of initial spec.	The specification shall be met lower category temperature range of -25°C

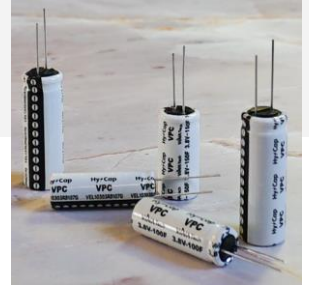
Part Number	Rated Voltage (V)	Rated Capacitance (F)	ESR <sub>DC</sub> (mΩ)	ESR <sub>AC</sub> (mΩ)	Leakage Current (μA)	Self Discharge (V)	Rated Current (A)	Pulse Current (A)	Weight (g)
VEL08203R8306G	3.8 Surge Voltage (4.0V)	30 @ 25°C #1	700 @ 25°C 100msec	350 @ 25°C 1kHz	1 @ 25°C 72hr	Over 97% @ 25°C #1	0.15 @ 25°C	0.5 @ 25°C #2	1.9±0.2

#1 Reference IEC62813 4.2  
#2 1sec. Discharge to 3.2V

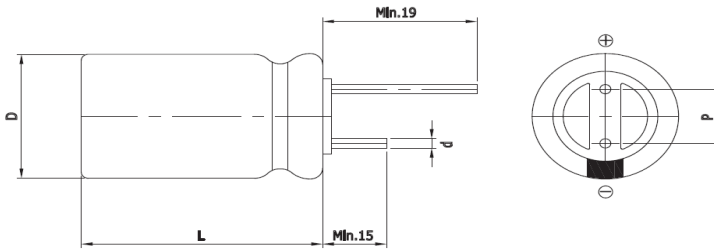
## Features

### VPC (Vina Pulse Capacitor)

- Low Self Discharge
- High Operating Voltage
- Wide Operating Temperature Range
- High Capacitance



## Drawing



Size	1030
D (Φ)	10.0 +1.0 Max
L (mm)	30.0 ±1.5
d (Φ)	0.8 ±0.1
P (mm)	5.0 ±0.5

## Specification

Item	Spec. value	Test methods
Operating Voltage Range	2.5V to 3.8V (2.5V to 3.5V @ 85°C)	
Operating Temp. Range	-25 ~ 85°C (-40 ~ 85°C @ in Li/SOCL2 battery system)	
Load Life @ 70°C	Capacitance : ± 30% of initial value ESR : Less than 200% of initial spec. Appearance : No abnormality	Temperature: 70±2°C, 85±2°C Time : 1,000 hours Voltage : 3.8V, 3.5V and measure the floating charge characteristics after returning to normal temperature and humidity.
Load Life @ 85°C		
Heat cycle characteristics		Temperature: 85±2°C, -40±2°C Duration: 30 min Cycle Numbers: 100 cycles
Cycle Life		Temperature : 25±2°C Cycle Number : 50,000 Discharge Current : 20 C-rate Cut-off Voltage : 2.5V (DOD 100%)
Low Temperature characteristics	Capacitance : ± 50% of initial value ESR : Less than 20 times of initial spec.	The specification shall be met lower category temperature range of -25°C

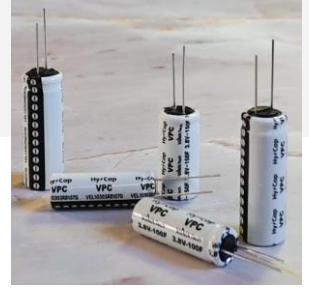
Part Number	Rated Voltage (V)	Rated Capacitance (F)	ESR <sub>DC</sub> (mΩ)	ESR <sub>AC</sub> (mΩ)	Leakage Current (μA)	Self Discharge (V)	Rated Current (A)	Pulse Current (A)	Weight (g)
VEL10303R8107G	3.8 Surge Voltage (4.0V)	100 @ 25°C #1	200 @ 25°C 100msec	100 @ 25°C 1kHz	2 @ 25°C 72hr	Over 97% @ 25°C #1	0.4 @ 25°C	2.0 @ 25°C #2	4.2±0.2

#1 Reference IEC62813 4.2  
#2 1sec. Discharge to 3.2V

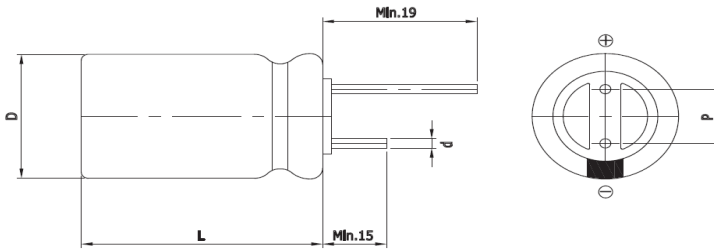
## Features

### VPC (Vina Pulse Capacitor)

- Low Self Discharge
- High Operating Voltage
- Wide Operating Temperature Range
- High Capacitance



## Drawing



Size	1325
D (Φ)	12.5 +1.0 Max
L (mm)	25.0 ±1.5
d (Φ)	0.8 ±0.1
P (mm)	5.0 ±0.5

## Specification

Item	Spec. value	Test methods
Operating Voltage Range	2.5V to 3.8V (2.5V to 3.5V @ 85°C)	
Operating Temp. Range	-25 ~ 85°C (-40 ~ 85°C @ in Li/SOCL2 battery system)	
Load Life @ 70°C	Capacitance : ± 30% of initial value ESR : Less than 200% of initial spec. Appearance : No abnormality	Temperature: 70±2°C, 85±2°C Time : 1,000 hours Voltage : 3.8V, 3.5V and measure the floating charge characteristics after returning to normal temperature and humidity.
Load Life @ 85°C		
Heat cycle characteristics		Temperature: 85±2°C, -40±2°C Duration: 30 min Cycle Numbers: 100 cycles
Cycle Life		Temperature : 25±2°C Cycle Number : 50,000 Discharge Current : 20 C-rate Cut-off Voltage : 2.5V (DOD 100%)
Low Temperature characteristics	Capacitance : ± 50% of initial value ESR : Less than 20 times of initial spec.	The specification shall be met lower category temperature range of -25°C

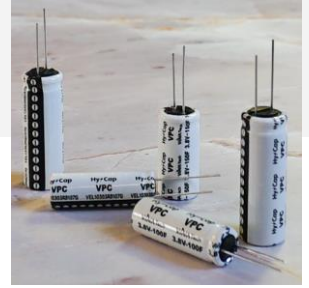
Part Number	Rated Voltage (V)	Rated Capacitance (F)	ESR <sub>DC</sub> (mΩ)	ESR <sub>AC</sub> (mΩ)	Leakage Current (μA)	Self Discharge (V)	Rated Current (A)	Pulse Current (A)	Weight (g)
VEL13253R8157G	3.8 Surge Voltage (4.0V)	150 @ 25°C #1	140 @ 25°C 100msec	70 @ 25°C 1kHz	3 @ 25°C 72hr	Over 97% @ 25°C #1	0.5 @ 25°C	3.0 @ 25°C #2	6.2±0.2

#1 Reference IEC62813 4.2  
#2 1sec. Discharge to 3.2V

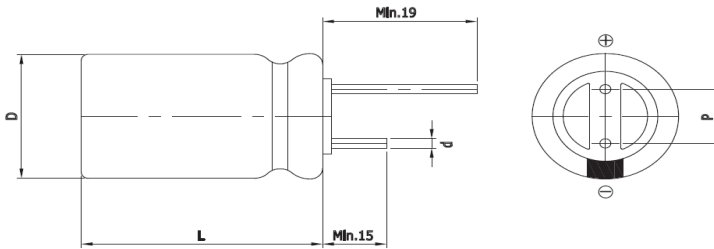
## Features

### VPC (Vina Pulse Capacitor)

- Low Self Discharge
- High Operating Voltage
- Wide Operating Temperature Range
- High Capacitance



## Drawing



Size	1335
D (Φ)	12.5 +1.0 Max
L (mm)	35.0 ±1.5
d (Φ)	0.8 ±0.1
P (mm)	5.0 ±0.5

## Specification

Item	Spec. value	Test methods
Operating Voltage Range	2.5V to 3.8V (2.5V to 3.5V @ 85°C)	
Operating Temp. Range	-25 ~ 85°C (-40 ~ 85°C @ in Li/SOCL2 battery system)	
Load Life @ 70°C	Capacitance : ± 30% of initial value ESR : Less than 200% of initial spec. Appearance : No abnormality	Temperature: 70±2°C, 85±2°C Time : 1,000 hours Voltage : 3.8V, 3.5V and measure the floating charge characteristics after returning to normal temperature and humidity.
Load Life @ 85°C		
Heat cycle characteristics		Temperature: 85±2°C, -40±2°C Duration: 30 min Cycle Numbers: 100 cycles
Cycle Life		Temperature : 25±2°C Cycle Number : 50,000 Discharge Current : 20 C-rate Cut-off Voltage : 2.5V (DOD 100%)
Low Temperature characteristics	Capacitance : ± 50% of initial value ESR : Less than 20 times of initial spec.	The specification shall be met lower category temperature range of -25°C

Part Number	Rated Voltage (V)	Rated Capacitance (F)	ESR <sub>DC</sub> (mΩ)	ESR <sub>AC</sub> (mΩ)	Leakage Current (μA)	Self Discharge (V)	Rated Current (A)	Pulse Current (A)	Weight (g)
VEL13353R8257G	3.8 Surge Voltage (4.0V)	250 @ 25°C #1	100 @ 25°C 100msec	50 @ 25°C 1kHz	5 @ 25°C 72hr	Over 97% @ 25°C #1	0.75 @ 25°C	5.0 @ 25°C #2	8.2±0.2

#1 Reference IEC62813 4.2  
#2 1sec. Discharge to 3.2V