

# TSE Electric Double Layer Capacitors

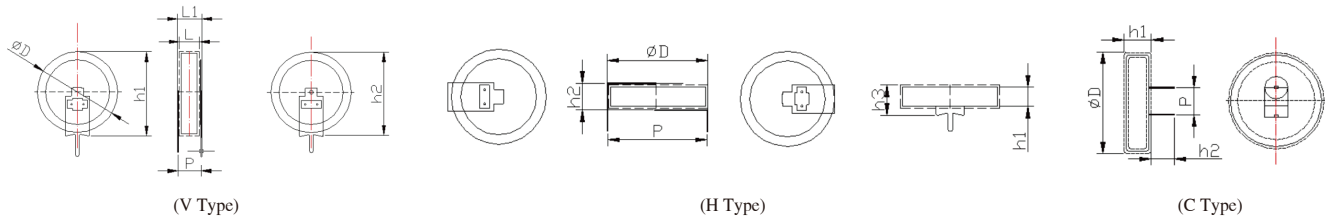
- 70°C 1000 Hours Coin Type 5.5V
- Long Cycle Life
- Large Capacitance, Low ESR, High Monomer Consistency
- RoHS, REACH Compliant



## Specification

Item	Characteristics		
Temperature Range	-25°C~+70°C & -40°C~+70°C		
Rated Voltage Range	5.5V.DC		
Capacitance Range	0.1F~1.5F	Capacitance Tolerance	-20%~+80%(20°C)
Characteristics	Capacitance Change	Δc/c(+20°C)  ≤ 30%	
	ESR	400% or less than the initial value(at -25°C)	
Endurance	The specifications should be met when the capacitors are restored to 20°C after the rated voltage is applied for 1000hrs at 70°C		
	Capacitance Change	Within ± 30% of the initial capacitance value	
	ESR	300% or less than the initial specified value	
Shelf Life	The specifications should be met when the capacitors are restored to 20°C after storing under no load for 1000hrs at 70°C		
	Capacitance Change	Within ± 30% of the initial capacitance value	
	ESR	300% or less than the initial specified value	

## Standard Size



## Product Size

Type	Voltage (VDC)	Capacitance (F)	Internal ESR AC(Ω, 1KHz)	Size(mm)				Part Number
				Diameter	Body Height	Pitch	Mount Height1	
V Type	5.5	0.1	50	11.5	12.3	4.7	4.3	TSE(*)5R5104(*)V000
	5.5	0.22	40	11.5	12.3	4.7	4.5	TSE(*)5R5224(*)V000
	5.5	0.33	40	11.5	12.3	4.7	5.0	TSE(*)5R5334(*)V000
	5.5	0.47	40	11.5	12.3	4.7	5.0	TSE(*)5R5474(*)V000
	5.5	1	30	18.7	20.2	5.0	5.1	TSE(*)5R5105(*)V000
	5.5	1.5	20	18.7	20.2	5.0	5.1	TSE(*)5R5155(*)V000
H Type	5.5	0.1	50	11.5	6.4	10.5	3.6	TSE(*)5R5104(*)H000
	5.5	0.22	40	11.5	6.4	10.5	3.8	TSE(*)5R5224(*)H000
	5.5	0.33	40	11.5	6.4	10.5	4.3	TSE(*)5R5334(*)H000
	5.5	0.47	40	11.5	6.4	10.5	4.3	TSE(*)5R5474(*)H000
	5.5	1	30	18.7	5.5	20.0	4.5	TSE(*)5R5105(*)H000
	5.5	1.5	20	18.7	5.5	20.0	4.5	TSE(*)5R5155(*)H000
C Type	5.5	0.1	50	13.0	6.5	5.0	6.05	TSE(*)5R5104(*)C000
	5.5	0.22	40	13.0	6.5	5.0	6.05	TSE(*)5R5224(*)C000
	5.5	0.33	40	13.0	6.5	5.0	6.35	TSE(*)5R5334(*)C000
	5.5	0.47	40	13.0	6.5	5.0	6.35	TSE(*)5R5474(*)C000
	5.5	1	30	20.5	7.4	5.0	7.25	TSE(*)5R5105(*)C000
	5.5	1.5	20	20.5	7.4	5.0	7.25	TSE(*)5R5155(*)C000

## TSE Series Electric Double Layer Capacitors, Supercapacitors

### How to order

<u>TSE</u>	<u>S</u>	<u>5R5</u>	<u>224</u>	<u>V</u>	<u>H</u>	<u>000</u>
↓	↓	↓	↓	↓	↓	↓
<u>Series Code</u>	<u>Temperature Code</u>	<u>Voltage Code</u>	<u>Capacitance</u>	<u>Capacitance Tolerance</u>	<u>Construction</u>	<u>Internal Code</u>
TSE Series (coin)	S : -25~70°C W : -40~70°C	2R7: 2.7V 3R0: 3.0V 3R6: 3.6V 3R8: 3.8V 5R5: 5.5V	224: 0.22F 474: 0.47F	±20% : M -20%~80% : V	V Type : V H Type : H C Type : C	Dia+H; or 000 000 for standard

### Applications:

- Back-up power: emergency light, smart timer, Car GPS/Tracker, Smart meter, energy meter, water meter, gas meter,
- Provide peak power: advertising lighting, led flash, camera, fire alarm
- Replacement of battery: electrical tools, electric curtain, IoT, solar Lighting

### Electric Double Layer Capacitors (Super capacitors) advantages

- Provide peak power and backup power
- Extend battery run time and battery life
- Reduce battery size, weight and cost
- Enable low/high temperature operation
- Improve load balancing when used in parallel with a battery
- Provide energy storage and source balancing when used with energy harvesters
- Cut pulse current noise
- Lessen RF noise by eliminating DC/DC
- Minimize space requirements
- Meet environmental standards