Type EDS, 85 °C Long Life Electric Double Layer Supercapacitor



Type EDS, 85 °C electric double layer supercapacitors offer high capacitance values in a thru hole stacked coin type package. Primarily designed for integrated circuit voltage backup, the capacitors can also be used to deliver the initial power from batteries.

Highlights

- Long life
- High discharge current
- 85 °C Operating temperature

Specifications

Operating Temperature Range	−25 °C to +85 °C			
Rated Voltage Range	3.6 Vdc to 5.5 Vdc			
Capacitance Range	0.047 F to 1.5 F			
Life, Moisture and Temperature Characteristics	After the following procedures have been performed, measure the capacitance and ESR at $+20 $ °C.			
Life Test:	Apply the max. operating voltage for 1000 h at +85 °C			
Capacitance Change ESR				
Shelf Life:	Subject the capacitor to 1000 hours without voltage at +85 °C.			
Capacitance Change ESR	\pm 30% of the initial measured value \leq 4 times the initial specified value			
Moisture Resistance:	Subject the capacitor to 240 hours at +40 °C at 90 to 95% RH without voltage.			
Capacitance Change ESR				
Temperature Cycling	Stabilize the capacitor at each of the following temperatures for 1 hour in sequence, and then measure the capacitance and ESR at that temperature.			
	1. +20 °C 225 °C 3. +20 °C 4. +85 °C 5. +20 °C			
Capacitance Change (at -25 °C) ESR (at -25 °C) Capacitance Change (at +85 °C) ESR (at +85 °C) Capacitance Change (Step 5 at +20 °C) ESR (Step 5 at +20 °C)	 ≤ 5 times the initial measured value ±30% of the initial measured value ≤ 4 times the initial measured value 			
RoHS Compliant without Exemptions				

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3.6 VDC						
	Cap ESR F 1 kHz Ω		Case Code			
CDE Part Number			V Туре	Н Туре	СТуре	
EDS473Z3R6*	0.047	120	V1	H1	C1	
EDS104Z3R6*	0.1	75	V1	H1	C1	
EDS224Z3R6*	0.22	75	V1	H1	C1	
EDS334Z3R6*	0.33	75	V1	H1	C1	
EDS474Z3R6*	0.47	50	V1	H1	C1	
EDS105Z3R6*	1	30	V2	H2	C2	
EDS155Z3R6*	1.5	30	V2	H2	C2	

*V, H, or C

5.5 VDC					
CDE Part Number	Cap F	ESR 1 kHz Ω	Case Code		
EDS104Z5R5C	0.1	120	C3		
EDS224Z5R5C	0.22	75	C3		
EDS334Z5R5C	0.33	75	C3		
EDS474Z5R5C	0.47	50	C4		
EDS684Z5R5C	0.68	50	C4		
EDS105Z5R5C	1	30	C4		

Part Numbering System



Z Tolerance -20/+80% 5**R**5

Voltage

5R5 = 5.5 Vdc



EDS Outline Drawing











Type EDS, 85 °C Long Life Electric Double Layer Supercapacitor EDS Outline Drawing













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Recommended Soldering Procedures		
Hand Soldering	Use a 30W iron with a max. temperature of 350 °C for 3 seconds.	
Wave Soldering	Pre-heat circuit board to a surface temp of 110 °C for a max. of 60 seconds, with a max. component temperature of 100 °C. Min. printed circuit board thickness of 0.8 mm. Recommended solder bath temperature of 240 °C with a max. dipping time of 5 seconds.	

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