

Data Sheet

Customer: _____

Product: Hybrid Conductive Polymer Capacitors SMD Type
Endurance 105°C 5,000Hours – EMSS Series

Size : 6.3x5.8mm ~ 10x12.7mm _____

Issued Date: 27-Sep-2023 _____

Edition: Ver. 1 _____

Record of change

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27-Sep-2023	1		

HITANO ENTERPRISE CORP.

7F-7, No. 3, Wu Chuan 1st Road, New Taipei Industrial Park,

New Taipei City, TAIWAN, R.O.C.

Tel: +886 2 2299 1331 (Rep.)

Fax: +886 2 2298 2466, 2298 2969

Prepared by	Checked by	Approved by	Accepted by (customer)
22-Sep-2023	22-Sep-2023	22-Sep-2023	
<i>Hwa Wu</i>	<i>Andy Hsu</i>	<i>Arthur Su</i>	

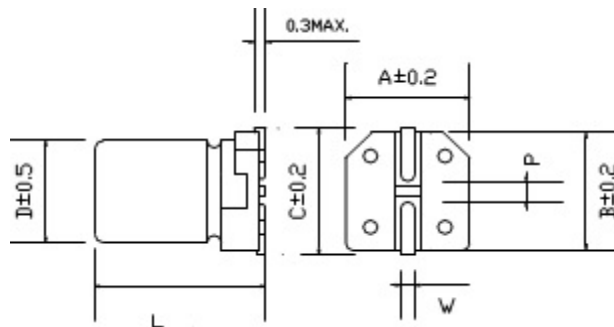
Features

- SMD TYPE. **Hybrid** Conductive Polymer Aluminum Solid Capacitors
- This type has lowest ESR level and excellent performance at high frequency through low profile.
- Ideal capacitor for digital and high frequency devices.
- Load life 105°C **5,000** hours assured.

Characteristics

Voltage Range	16 ~100VDC	
Capacitance Range	10uF ~ 1000uF	
Temperature Range	-55 ~ +105°C	
Capacitance Tolerance	M=+20%/-20% , K=+10%/-10% (at 20 ⁰ C , 120Hz)	
Leakage Current	Capacitance(μF) x Rated Voltage(Vdc) After 2minutes, see standard rating	
Dissipation Factor (tanδ) 20°C 120Hz	See standard rating	
ESR (at 100K~300K Hz, 20°C)	See standard rating	
Endurance (Rated Voltage at 105°C 5,000h, restored to 20°C)	Appearance	≤ No significant damage
	Capacitance Change (μF)	Within ±20% of initial measured value
	Dissipation Factor (tanδ)	≤ 150% of an initial specified value
	ESR (mΩ)	≤ 150% of an initial specified value
	Leakage Current (μA)	≤ Initial specified value
Moisture Resistance (Test at 60°C , 90~95RH for 1000hrs, L.C. should be tested after voltage treatment)	Capacitance Change (μF)	Within ±20% of initial measured value
	Dissipation Factor (tanδ)	≤ 150% of an initial specified value
	ESR (mΩ)	≤ 150% of an initial specified value
	Leakage Current (μA)	≤ Initial specified value
Resistance to Soldering Heat	Capacitance Change (μF)	Within ±10% of initial measured value
	Dissipation Factor (tanδ)	≤ 130% of an initial specified value
	ESR (mΩ)	≤ 130% of an initial specified value
	Leakage Current (μA)	≤ Initial specified value

Diagram of dimensions



Lead Spacing And Diameter

Case Size	φD	L	A	B	C	W	P±0.2
C6	6.3	5.8±0.5	6.5	6.5	7.2	0.5 ~ 0.8	2.1
C8	6.3	7.7±0.5	6.5	6.5	7.2	0.5 ~ 0.8	2.1
C10	6.3	9.2±0.5	6.5	6.5	7.2	0.5 ~ 0.8	2.1
C12	6.3	11.5±0.5	6.5	6.5	7.2	0.5 ~ 0.8	2.1
D8	8	7.7±0.5	8.3	8.3	9.0	0.8 ~ 1.1	3.2
D10	8	9.4±0.5	8.3	8.3	9.0	0.8 ~ 1.1	3.2
D12	8	11.7±0.5	8.3	8.3	9.0	0.8 ~ 1.1	3.2
F11	10	10.7±0.5	10.3	10.3	11.0	0.8 ~ 1.1	4.6
F13	10	12.7±0.5	10.3	10.3	11.0	0.8 ~ 1.1	4.6

Frequency coefficient for ripple current

Frequency	120Hz ≤ f < 1KHz	1KHz ≤ f < 10KHz	10KHz ≤ f < 100KHz	100KHz ≤ f < 500KHz
Coefficient	0.05	0.3	0.7	1

Ripple Current: mA /rms at 100kHz, 105°C

W.V.(V)	Capacitance (μF)	Size ϕDxL(mm)	Size Code	Tanδ (120Hz,20C)	L.C. (μA)	E.S.R. (100k-300kHz,mΩ,2 0°C MAX)	Rated R.C (mArms at 100kHz, 105°C)
16 V	100	6.3x5.8	C6	0.1	16	28	2300
	100	6.3x7.7	C8	0.1	16	24	2300
	270	6.3x9.2	C10	0.1	43.2	18	3000
	330	6.3x9.2	C10	0.1	53	18	3100
	470	8x9.4	D10	0.1	75.2	14	3500
	560	8x9.4	D10	0.1	89.6	14	3500
	680	8x11.7	D12	0.1	109	15	4500
	820	8x11.7	D12	0.1	131.2	12	4500
1000	10x12.7	F13	0.1	160	14	4800	
25V	100	6.3x5.8	C6	0.1	25	26	2000
	100	6.3x9.2	C10	0.1	25	24	2000
	220	6.3x9.2	C10	0.1	55	22	2200
	330	8x9.2	D10	0.1	82	20	3200
	470	8x11.7	D12	0.1	117.5	16	4200
	560	8x11.7	D12	0.1	140	16	4500
	680	10x12.7	F13	0.1	170	14	5000
35V	100	6.3x9.2	C10	0.1	35	30	2000
	220	8x11.7	D12	0.1	77	24	2500
	330	10x12.7	F13	0.1	115.5	18	3200
	470	10x12.7	F13	0.1	164.5	16	3500
50V	22	6.3x5.8	C6	0.1	11	40	1800
	33	6.3x9.2	C10	0.1	17	36	2000
	47	6.3x9.2	C10	0.1	24	35	2200
	56	6.3x11.5	C12	0.1	28	25	2400
	68	6.3x11.5	C12	0.1	34	22	2500
	68	8x9.4	D10	0.1	34	22	3300
	82	8x11.5	D12	0.1	41	20	3800
	100	8x11.7	D12	0.1	50	20	4000
	150	10x12.7	F13	0.1	75	20	3200
220	10x12.7	F13	0.1	110	20	3200	
63v	10	6.3x5.8	C6	0.1	10	45	1800
	10	6.3x9.2	C10	0.1	10	35	2000
	22	6.3x9.2	C10	0.1	13.86	35	2200
	33	6.3x11.5	C12	0.1	20.79	30	2500
	47	8x9.4	D10	0.1	29.61	22	2400
	56	8x11.7	D12	0.1	35.28	22	2700
	82	10x12.7	F13	0.1	51.66	18	3000
	100	10x12.7	F13	0.1	63	16	3500
80v	22	8x9.4	D10	0.1	17.6	28	2400
	47	8x11.7	D12	0.1	37.6	24	2800
	56	10x12.7	F13	0.1	44.8	25	2500
	68	10x12.7	F13	0.1	54	23	3300
100v (2A)	12	6.3x9.2	C10	0.1	12	35	2000
	15	8x9.4	D10	0.1	15	32	2200
	22	8x11.7	D12	0.1	22	28	2400
	33	8x11.7	D12	0.1	33	26	2400
	47	10x12.7	F13	0.1	47	25	3000
	56	10x12.7	F13	0.1	56	23	3200