

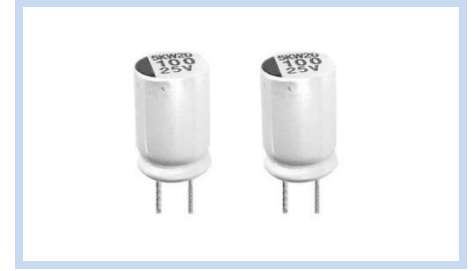
Conductive Polymer Aluminum Solid Capacitor - High Voltage

PEHA Series

MERITEK

FEATURE

- Operating Temperature: -55°C ~ 105°C
- Rated voltage: 25 ~ 50VDC
- Endurance 5000 hours at 105°C
- Suitable for AC-DC, DC-DC converters, voltage regulators and decoupling applications



PART NUMBERING SYSTEM

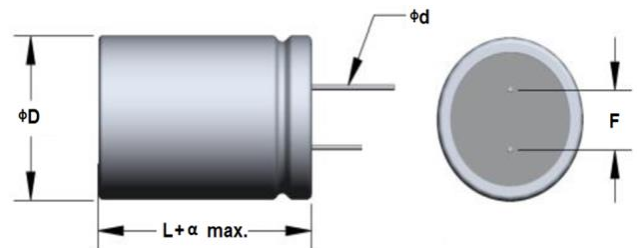
PEHA 250 221 M 0812
 (1) (2) (3) (4) (5)



No	Item	Digit	Description	Series Reference
(1)	Meritek Series	PEHA	Conductive Polymer Aluminum Solid Cap	High Voltage Type
(2)	Rated Voltage	250	250: 25 VDC	350: 35 VDC, 500: 50 VDC
(3)	Capacitance	221	221: 220 μ F	470: 47 μ F ~ 152: 1500 μ F
(4)	Tolerance	M	M: \pm 20%	-20% ~ +20%
(5)	Size Code	0812	Diameter X Length: 8.0X11.5 mm	0808, 0816, 0820, 1012, 1016, 1020

DIMENSION

Size Code	$\phi D \pm 0.5$ Max. (mm)	L (mm)	α (mm)	$\phi d \pm 0.05$ (mm)	F ± 0.4 (mm)
0808	8.0	8.0	1.0	0.6	3.5
0812	8.0	11.5	1.5	0.6	3.5
0816	8.0	16.0	1.5	0.6	3.5
0820	8.0	20.0	1.5	0.6	3.5
1012	10.0	11.5	1.5	0.6	5.0
1016	10.0	16.0	1.5	0.6	5.0
1020	10.0	20.0	1.5	0.6	5.0



ELECTRICAL CHARACTERISTICS

Item	Characteristic
Operating Temperature Range	-55°C ~ +105°C
Rated Working Voltage	25VDC ~ 50VDC
Withstand Voltage	Rated voltage x 1.15 at 105°C
Capacitance	47 μ F ~ 1500 μ F
Capacitance Tolerance	-20% ~ +20% (M)
Leakage Current	Shall not exceed values shown in electrical characteristics.
Dissipation Factor (tan δ)	\leq 0.12 (Max.) at 20°C, 120Hz

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ELECTRICAL CHARACTERISTICS

WV/SV (VDC)	Part No.	Cap (μF)	Case Size Code	Leakage Current (μA)	ESR (mΩ Max./20%) @100kHz~300kHz	Ripple Current (mA r.m.s) @105° C ,100kHz
25/28.8	PEHA250221M0812	220	0812	1,100	16	4,650
	PEHA250331M0812	330	0812	1,650	16	4,650
	PEHA250471M0812	470	0812	2,350	16	4,650
	PEHA250561M1012	560	1012	2,800	14	5,100
	PEHA250561M0816	560	0816	2,800	16	4,650
	PEHA250681M0816	680	0816	1,496	14	4,650
	PEHA250681M1012	680	1012	1,496	14	5,100
	PEHA250821M0820	820	0820	4,100	13	5,100
	PEHA250102M1016	1000	1016	5,000	14	5,200
	PEHA250152M1020	1500	1020	7,500	13	5,300
35/40.3	PEHA350680M0808	68	0808	476	28	2,800
	PEHA350101M0808	100	0808	700	23	2,800
	PEHA350151M0812	150	0812	1,050	25	3,000
	PEHA350221M0812	220	0812	1,540	25	2,890
	PEHA350221M1012	220	1012	1,540	24	3,400
	PEHA350331M0816	330	0816	2,310	23	3,800
	PEHA350331M1012	330	1012	2,310	24	3,400
	PEHA350471M0820	470	0820	3,290	20	4,400
	PEHA350471M1016	470	1016	3,290	25	4,000
	PEHA350561M1016	560	1016	3,920	23	4,200
50/57.5	PEHA350681M1020	680	1020	4,760	20	4,800
	PEHA500470M0812	47	0812	470	28	2,620
	PEHA500680M0812	68	0812	680	28	2,620
	PEHA500121M0812	120	0812	1,200	28	2,620
	PEHA500151M0816	150	0816	1,500	28	2,620
	PEHA500181M1012	180	1012	1,800	28	3,100
	PEHA500221M1012	220	1012	2,200	28	3,100
PEHA500391M1020	390	1020	3,900	23	3,800	

RELIABILITY

Item	Test Condition	Requirements
Endurance	105°C, 5000 hours, rated voltage applied	<ul style="list-style-type: none"> Appearance: No significant damage Capacitance Change Within ±20% D. F. ≤ 150% of the initial specified value ESR ≤ 150% of the initial specified value Leakage current ≤ The initial specified value
Damp Heat (Steady State)	60°C, 90 to 95%RH, 1000 HRS. No voltage applied	<ul style="list-style-type: none"> Appearance: No significant damage Capacitance Change Within ±20% D. F. ≤ 150% of the initial specified value ESR ≤ 150% of the initial specified value Leakage current ≤ The initial specified value
Surge Voltage	The capacitors shall be subjected to 1000 cycles each consisting of charge with surge voltage specified at 105°C for 0.5 mins through a protective resistor (R=1kΩ) and discharge for 5.5 mins.	<ul style="list-style-type: none"> Appearance: No significant damage Capacitance Change Within ±20% D. F. ≤ 150% of the initial specified value ESR ≤ 150% of the initial specified value Leakage current ≤ The initial specified value