

# Conductive Polymer Aluminum Solid Capacitors (Radial type)

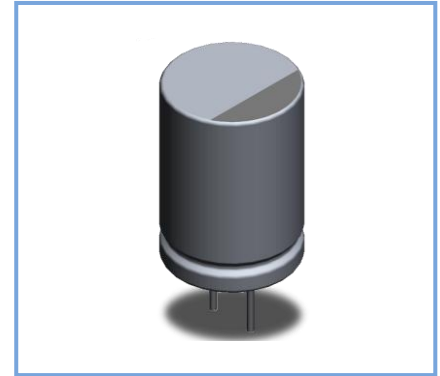


PE5K Series

MERITEK

## FEATURES

- Super low ESR, high ripple current capability
- Rated voltage: 2.5V<sub>DC</sub> ~16V<sub>DC</sub>
- Endurance: 5000hours at 105°C
- Suitable for DC-DC converters, voltage regulators and decoupling applications.



## SPECIFICATIONS

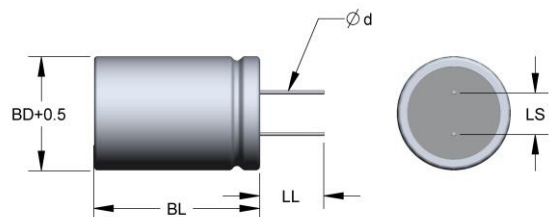
Item	Characteristic	
Category Temperature Range	-55°C ~ +105°C	
Rated Voltage Range	2.5V <sub>DC</sub> ~ 16V <sub>DC</sub>	
Surge Voltage	Rated voltage x 1.15V	at +105°C
Capacitance Tolerance	M=±20%	at 120Hz, 20°C
Leakage Current	Shall not exceed values shown in standard ratings at 20°C after 2 minutes	
Dissipation Factor ( tan δ )	0.1 (max) at 120Hz, 20°C	
Temperature Stability	Impedance change Z(-55°C)/Z(+20°C)≤1.25 Z(+105°C)/Z(+20°C)≤1.25	at -55°C, 100kHz at +105°C, 100kHz
Endurance	<b>Appearance:</b> no significant damage <b>Capacitance change:</b> ≤ ±20% of the initial value <b>DF(tanδ):</b> ≤ 150% of the initial specified value <b>ESR:</b> ≤ 150% of the initial specified value <b>Leakage current:</b> ≤ the initial specified value	The specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 5000hours at 105°C
Damp Heat, Steady State	<b>Appearance:</b> no significant damage <b>Capacitance change:</b> ≤ ±20% of the initial value <b>DF(tanδ):</b> ≤ 150% of the initial specified value <b>ESR:</b> ≤ 150% of the initial specified value <b>Leakage current:</b> ≤ the initial specified value	The specifications shall be satisfied when the capacitors are restored to 20°C after subjecting them to store at 60°C, 90%~95% R.H. for 1000hours, without DC applied.
Surge Voltage	<b>Appearance:</b> no significant damage <b>Capacitance change:</b> ≤ ±20% of the initial value <b>DF(tanδ):</b> ≤ 150% of the initial specified value <b>ESR:</b> ≤ 150% of the initial specified value <b>Leakage current:</b> ≤ the initial specified value	The capacitors shall be subjected to 1,000 cycles each consisting of charge with the surge voltages specified at 105°C for 30 seconds through a protective resistor (R=1kΩ) and discharge for 5 minutes 30 seconds

### NOTE:

If any doubt arises, measure the leakage current after following voltage treatment -  
Voltage treatment: DC rated voltage is applied to the capacitors for 60 minutes at 105°C

## DIMENSIONS (mm)

Size code	0509	0606	0609	0809	0812	1012
BD+0.5 (max)	5.0	6.3	6.3	8.0	8.0	10.0
BL,(max)	9.0	6.0	9.0	9.0	12.0	12.0
Φd±0.05	0.5	0.45	0.6	0.6	0.6	0.6
LS±0.4	2.0	2.5	2.5	3.5	3.5	5.0
LL±0.3	3.2	3.2	3.2	3.2	3.2	3.2



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## SPECIFICATIONS

Item	Working Voltage(SV)	Capacitance	Size Code	Leakage Current	ESR <sup>1</sup>	Rated Ripple Current <sup>2</sup>
	(Vdc)	(uF)		(uA)	(mΩ), max	(mArms)
PE5K2R5561M0509	2.5(2.9)	560	0509	500	7	4180
PE5K2R5561M0609	2.5(2.9)	560	0609	500	7	5000
PE5K2R5561M0809	2.5(2.9)	560	0809	500	7	5700
PE5K2R5821M0609	2.5(2.9)	820	0609	500	7	5000
PE5K2R5821M0809	2.5(2.9)	820	0809	500	7	5700
PE5K4R0561M0609	4.0(4.6)	560	0609	500	7	5000
PE5K4R0561M0609	4.0(4.6)	560	0609	500	24	2400
PE5K6R3101M0606	6.3(7.2)	100	0606	126	35	2100
PE5K6R3471M0609	6.3(7.2)	470	0609	592	8	4700
PE5K6R3471M0809	6.3(7.2)	470	0809	592	8	5300
PE5K6R3561M0609	6.3(7.2)	560	0609	705	8	4700
PE5K6R3561M0609	6.3(7.2)	560	0609	705	24	2400
PE5K6R3561M0809	6.3(7.2)	560	0809	705	7	5700
PE5K16V101M0606	16(18.4)	100	0606	320	24	2490
PE5K16V101M0609	16(18.4)	100	0609	320	35	2300
PE5K16V271M0809	16(18.4)	270	0809	864	10	5000
PE5K16V271M0812	16(18.4)	270	0812	864	10	5230
PE5K16V471M0812	16(18.4)	470	0812	1505	10	5230
PE5K16V471M1012	16(18.4)	470	1012	1505	10	6100

**NOTE:**

1. Test condition: 20°C, 100kHz~300kHz
2. Test condition: 105°C, 100kHz