

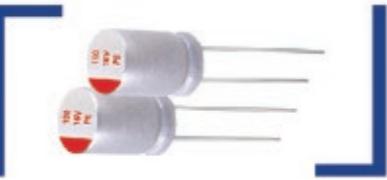
# PE PE

## 高分子导电型(标准品)——插件型

### Series Conductive polymer type(Standard type)-----Radial lead type

#### 特点 Features

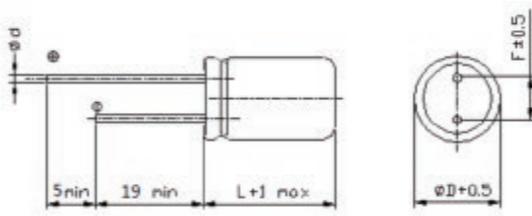
- 可适于无铅焊  
Lead free-flow is supported
- ROHS指令已对应完毕。Adapted to the ROHS directive.



#### 主要技术性能 Specifications

项目 Items	特性 Characteristics		
工作温度范围 Operating Temperature Range	-55°C ~ +105°C		
额定电压范围 Rated Voltage Range	2.5V ~ 25V		
标称电容量范围 Nominal Capacitance Range	3.3 ~ 2200μF		
标称电容量允许偏差 Nominal Capacitance Tolerance	±20% ( 20°C , 120Hz )		
漏电流 Leakage Current	≤表1规定值 Less than or equal to the value of table1 2分钟 at 20°C, after 2 minutes		
损耗角正切 ( tgδ ) Dissipation Factor (Max)	20°C, 120Hz	直径 Φ4~Φ5	Φ6.3~Φ10
		tgδ	0.10      0.08
ESR	≤表1规定值 Less than or equal to the value of table1		
高低温特性比 Characteristics of impedance ratio at high temp. and low temp	要求在100KHZ 20°C Based the value at 100KHZ. +20°C	-55°C +105°C	Z/Z20°C      0.75 to 1.25
耐久性 Load Life	+105°C施加额定电压2000小时后，电容器应满足以下要求： After 2000 hours' application of rated voltage at 105°C, the capacitor shall meet the following requirement:		
	电容量变化率 Capacitance Change	±20%初始值以内 Within ±20% of the initial value (16V: within ±25% of the initial value)	
	损耗角正切 Dissipation Factor	≤ 150%初始规定值 Not more than 150% of the initial specified value	
	阻抗 Equivalent Series Resistance	≤ 150%初始规定值 Not more than 150% of the initial specified value	
	漏电流 Leakage Current	≤初始规定值 Not more than the initial specified value	
稳态湿热 Damp heat(Steady state)	60°C, 90~95% RH, 不加电压1000小时    60°C, 90~95% RH, 1000 hours, No-applied voltage.		
	电容量变化率 Capacitance Change	±20%初始值以内 Within ±20% of the initial value (16V: within ±25% of the initial value)	
	损耗角正切 Dissipation Factor	≤150%初始规定值 Not more than 150% of the initial specified value	
	阻抗 Equivalent Series Resistance	≤150%初始规定值 Not more than 150% of the initial specified value	
	漏电流 Leakage Current	≤初始规定值 Not more than the initial specified value	
耐焊接热 Resistance to Soldering Heat	( VPS ) (260°C X 10s)		
	电容量变化率 Capacitance Change	±10%初始值以内 Within ±10% of the initial value (16V以上: within ±15% of the initial value)	
	损耗角正切 Dissipation Factor	≤初始规定值 Not more than the initial specified value	
	阻抗 Equivalent Series Resistance	≤初始规定值 Not more than the initial specified value	
	漏电流 Leakage Current	≤初始规定值 Not more than the initial specified value	

尺寸图 Dimensions



尺寸表 Size List

单位Unit:mm

D	4	5	6	8	10
F	1.5	2.0	2.5	3.5	5
d	0.45	0.5	0.6	0.6	0.6

#### 标称电容量、额定电压、额定纹波电流与尺寸对应表

Nominal Capacitance, Rated Voltage, Rated Ripple Current and Case Size Table

Size Code	UR (V)	CR (μF)	ESR (mΩmax.)	Ripple 100KHZ (mArms)	Leakage current(μA) (max.)	Size Code	UR (V)	CR (μF)	ESR (mΩmax.)	Ripple 100KHZ (mArms)	Leakage current(μA) (max.)
4×5.4	16	3.3	100	660	200	6.3×5.4	25	27	30	2100	200
	10	4.7	100	670	200		25	33	30	2100	200
	10	6.8	100	670	200		20	22	30	2200	200
	10	10	100	700	200		20	27	30	2200	200
	10	15	100	740	200		16	39	30	1400	200
	6.3	22	100	740	200		16	47	30	2100	200
	4	33	100	740	200		16	68	30	2100	200
5×5.4	20	10	100	1100	200	5×7	16	82	30	2100	262
	16	15	100	1100	200		16	100	30	2100	320
	16	22	100	1100	200		10	47	24	1400	200
	10	33	100	1200	200		10	56	24	1400	200
	6.3	47	100	1200	200		10	120	24	2100	240
	4	39	100	1100	200		6.3	82	24	1400	200
	4	68	100	1400	200		6.3	100	24	1500	200
5×7	6.3	220	16	3100	277	5×8	6.3	120	24	2500	200
	6.3	270	16	3100	340		6.3	220	24	2700	277
	10	100	16	3100	200		4	150	24	1700	200
	10	150	16	3100	300		4	220	24	2100	200
	16	100	16	2700	320		4	330	24	2800	264
	6.3	330	16	3100	415		2.5	220	24	2800	200
	10	220	16	3100	440		2.5	330	24	2800	200
5×9	2.5	560	16	3100	280	6.3×9	2.5	390	24	2800	200
	6.3	390	16	3100	491		16	220	14	3100	704
	6.3	470	16	3100	592		16	270	14	3100	864
	10	220	16	2700	440		6.3	470	12	3100	592
	10	270	16	2700	540		6.3	560	12	3100	706
	16	150	16	2700	480		4	470	12	3900	376
	6.3	560	16	3700	705		4	560	12	3900	448
5.45×9	7.5	470	16	3700	705	8×7	2.5	470	12	3900	235
	7.5	500	16	3700	750		2.5	560	12	3900	280
	7.5	560	16	3700	840		2.5	820	12	3900	410
	10	330	16	3700	660		2.5	1000	12	3900	500
	12	330	16	3700	792		25	10	30	2700	200
	16	220	16	3700	704		20	33	30	2700	200
	25	6.8	30	1400	200		20	47	30	2700	200

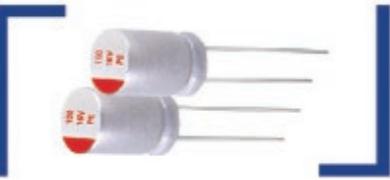
# PE PE

## 高分子导电型(标准品)——插件型

### Series Conductive polymer type(Standard type)-----Radial lead type

#### 特点 Features

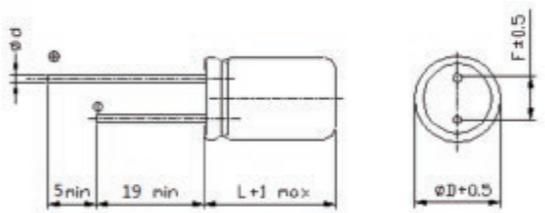
- 可适于无铅焊  
Lead free-flow is supported
- ROHS指令已对应完毕。Adapted to the ROHS directive.



#### 主要技术性能 Specifications

项目 Items	特性 Characteristics		
工作温度范围 Operating Temperature Range	-55°C ~ +105°C		
额定电压范围 Rated Voltage Range	2.5V ~ 25V		
标称电容量范围 Nominal Capacitance Range	3.3 ~ 2200μF		
标称电容量允许偏差 Nominal Capacitance Tolerance	±20% ( 20°C , 120Hz )		
漏电流 Leakage Current	≤表1规定值 Less than or equal to the value of table1 2分钟 at 20°C, after 2 minutes		
损耗角正切 ( tgδ ) Dissipation Factor (Max)	20°C, 120Hz	直径 Φ4~Φ5	Φ6.3~Φ10
		tgδ	0.10      0.08
ESR	≤表1规定值 Less than or equal to the value of table1		
高低温特性比 Characteristics of impedance ratio at high temp. and low temp	要求在100KHZ 20°C Based the value at 100KHZ. +20°C	-55°C +105°C	Z/Z20°C Z/Z20°C
			0.75 to 1.25 0.75 to 1.25
耐久性 Load Life	+105°C施加额定电压2000小时后，电容器应满足以下要求： After 2000 hours' application of rated voltage at 105°C, the capacitor shall meet the following requirement:		
	电容量变化率 Capacitance Change	±20%初始值以内 Within ±20% of the initial value (16V: within ±25% of the initial value)	
	损耗角正切 Dissipation Factor	≤ 150%初始规定值 Not more than 150% of the initial specified value	
	阻抗 Equivalent Series Resistance	≤ 150%初始规定值 Not more than 150% of the initial specified value	
	漏电流 Leakage Current	≤初始规定值 Not more than the initial specified value	
稳态湿热 Damp heat(Steady state)	60°C, 90~95% RH, 不加电压1000小时    60°C, 90~95% RH, 1000 hours, No-applied voltage.		
	电容量变化率 Capacitance Change	±20%初始值以内 Within ±20% of the initial value (16V: within ±25% of the initial value)	
	损耗角正切 Dissipation Factor	≤150%初始规定值 Not more than 150% of the initial specified value	
	阻抗 Equivalent Series Resistance	≤150%初始规定值 Not more than 150% of the initial specified value	
	漏电流 Leakage Current	≤初始规定值 Not more than the initial specified value	
耐焊接热 Resistance to Soldering Heat	( VPS ) (260°C X 10s)		
	电容量变化率 Capacitance Change	±10%初始值以内 Within ±10% of the initial value (16V以上: within ±15% of the initial value)	
	损耗角正切 Dissipation Factor	≤初始规定值 Not more than the initial specified value	
	阻抗 Equivalent Series Resistance	≤初始规定值 Not more than the initial specified value	
	漏电流 Leakage Current	≤初始规定值 Not more than the initial specified value	

尺寸图 Dimensions



尺寸表 Size List

单位Unit:mm

D	4	5	6	8	10
F	1.5	2.0	2.5	3.5	5
d	0.45	0.5	0.6	0.6	0.6

标称电容量、额定电压、额定纹波电流与尺寸对应表

Nominal Capacitance, Rated Voltage, Rated Ripple Current and Case Size Table

Size Code	UR (V)	CR (μF)	ESR (mΩmax.)	Ripple 100KHZ (mArms)	Leakage current(μA) (max.)	Size Code	UR (V)	CR (μF)	ESR (mΩmax.)	Ripple 100KHZ (mArms)	Leakage current(μA) (max.)
4×5.4	16	3.3	100	660	200	6.3×5.4	25	27	30	2100	200
	10	4.7	100	670	200		25	33	30	2100	200
	10	6.8	100	670	200		20	22	30	2200	200
	10	10	100	700	200		20	27	30	2200	200
	10	15	100	740	200		16	39	30	1400	200
	6.3	22	100	740	200		16	47	30	2100	200
	4	33	100	740	200		16	68	30	2100	200
5×5.4	20	10	100	1100	200	5×7	16	82	30	2100	262
	16	15	100	1100	200		16	100	30	2100	320
	16	22	100	1100	200		10	47	24	1400	200
	10	33	100	1200	200		10	56	24	1400	200
	6.3	47	100	1200	200		10	120	24	2100	240
	4	39	100	1100	200		6.3	82	24	1400	200
	4	68	100	1400	200		6.3	100	24	1500	200
5×7	6.3	220	16	3100	277	5×8	6.3	120	24	2500	200
	6.3	270	16	3100	340		6.3	220	24	2700	277
	10	100	16	3100	200		4	150	24	1700	200
	10	150	16	3100	300		4	220	24	2100	200
	16	100	16	2700	320		4	330	24	2800	264
	6.3	330	16	3100	415		2.5	220	24	2800	200
	10	220	16	3100	440		2.5	330	24	2800	200
5×9	2.5	560	16	3100	280	6.3×9	2.5	390	24	2800	200
	6.3	390	16	3100	491		16	220	14	3100	704
	6.3	470	16	3100	592		16	270	14	3100	864
	10	220	16	2700	440		6.3	470	12	3100	592
	10	270	16	2700	540		6.3	560	12	3100	706
	16	150	16	2700	480		4	470	12	3900	376
	6.3	560	16	3700	705		4	560	12	3900	448
5.45×9	7.5	470	16	3700	705	8×7	2.5	470	12	3900	235
	7.5	500	16	3700	750		2.5	560	12	3900	280
	7.5	560	16	3700	840		2.5	820	12	3900	410
	10	330	16	3700	660		2.5	1000	12	3900	500
	12	330	16	3700	792		25	10	30	2700	200
	16	220	16	3700	704		20	33	30	2700	200
	25	6.8	30	1400	200		20	47	30	2700	200

Size Code	UR (V)	CR ( $\mu$ F)	ESR (m $\Omega$ max.)	Ripple 100KHZ (mArms)	Leakage current( $\mu$ A) (max.)	Size Code	UR (V)	CR ( $\mu$ F)	ESR (m $\Omega$ max.)	Ripple 100KHZ (mArms)	Leakage current( $\mu$ A) (max.)
8×9	6.3	820	12	5100	1033	10×10	25	56	30	3100	280
	4	470	12	5300	376		25	100	30	3100	500
	4	560	12	5400	448		25	150	30	3900	750
	4	820	12	5400	656		20	150	30	3900	600
	4	1000	12	5400	800		20	220	30	3900	880
	2.5	470	12	5400	235		20	270	30	3900	1080
	2.5	560	12	5400	280		20	330	30	3900	1320
	2.5	820	12	5400	410		20	390	30	3900	1560
	2.5	1000	12	5400	500		16	330	14	4700	1056
	2.5	1200	12	5400	600		16	390	14	4700	1248
8×10	25	33	30	2700	200	10×12	16	470	14	4700	1504
	20	100	30	3100	400		10	470	14	4700	940
	16	180	14	4700	576		10	560	14	5400	1120
	16	220	14	4700	704		6.3	820	12	5400	1033
	16	270	14	4700	864		4	1000	12	5400	800
	16	330	14	4700	1056		4	1200	12	5400	960
	10	330	14	4700	660		2.5	1000	12	5400	500
	6.3	470	12	5100	592		2.5	1200	12	5400	600
	6.3	560	12	5400	706		2.5	1500	12	5400	750
	6.3	820	12	5400	1033		25	150	30	3100	750
	4	560	12	5400	448		25	220	30	3100	1100
	4	680	12	5400	544		20	150	30	3100	600
	4	820	12	5400	656		20	220	30	3100	880
	4	1000	12	5400	800		20	270	30	3100	1080
	2.5	680	12	5400	340		20	330	30	3100	1320
	2.5	820	12	5400	410		20	390	30	3100	1560
	2.5	1000	12	5400	500		20	470	30	3100	1880
	2.5	1200	12	5400	600		16	330	14	4700	1056
8×12	25	100	30	3100	500	10×12	16	390	14	4700	1248
	20	100	30	3100	400		16	470	14	4700	1504
	20	150	30	3100	600		16	560	14	4700	1792
	16	220	14	4700	704		10	560	14	4700	1120
	16	270	14	4700	864		10	680	14	4700	1360
	16	330	14	4700	1056		6.3	820	12	5400	1033
	16	390	14	4700	1248		6.3	1000	12	5400	1260
	10	330	14	4700	660		4	1000	12	5400	800
	10	390	14	4700	780		4	1200	12	5400	960
	10	470	14	4700	940		4	1500	12	5400	1200
	6.3	820	12	5400	1033		2.5	1000	12	5400	500
	6.3	1000	12	5400	1260		2.5	1200	12	5400	600
	2.5	820	12	5400	410		2.5	1500	12	5400	750
	2.5	1000	12	5400	500		2.5	2200	12	5400	1100
	2.5	1200	12	5400	600						
	2.5	1500	12	5400	750						

ESR(100KHZ to 300KHZ)

# PC PC 高分子导电型(低阻抗品)——插件型

## Conductive polymer type(Low ESR type)-----Radial type

### 特点 Features

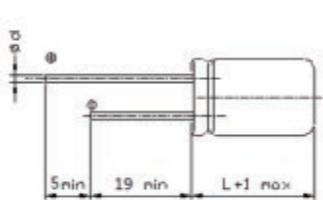
- 径向引线型，以PE为基础的高分子导电型。  
This is a lead type using conductive polymer based on PE
- 可适于无铅焊  
Lead free-flow is supported
- ROHS指令已对应完毕。Adapted to the ROHS directive.



### 主要技术性能 Specifications

项目 Items	特性 Characteristics		
工作温度范围 Operating Temperature Range	-55°C ~ +105°C		
额定电压范围 Rated Voltage Range	2.5V ~ 2.5V		
标称电容范围 Nominal Capacitance Range	3.3 ~ 2200 $\mu$ F		
标称电容允许偏差 Nominal Capacitance Tolerance	$\pm 20\%$ ( 20°C , 120Hz )		
漏电流 Leakage Current	≤表1规定值 Less than or equal to the value of table1 2分钟 at 20°C, after 2 minutes		
损耗角正切 ( tgδ ) Dissipation Factor (Max)	20°C, 120Hz	直径 tgδ	Φ4~Φ5 0.10 Φ6.3~Φ10 0.08
ESR	≤表1规定值 Less than or equal to the value of table1		
高低温特性比 Characteristics of impedance ratio at high temp. and low temp	要求在100KHZ 20°C Based on the value at 100KHZ. +20°C	-55°C +105°C	Z/Z20°C Z/Z20°C 0.75 to 1.25 0.75 to 1.25
耐久性 Load Life	+105°C施加额定电压5000小时后，电容器应满足以下要求(Φ4&Φ5或制品高度在6mm以下的产品寿命：2000小时)： After 5000 hours' application of rated voltage at 105°C, the capacitor shall meet the following requirement: ( Load life time of Φ4 & Φ5 or the height not more than 6mm : 2000 hours )		
	电容量变化率 Capacitance Change	±20%初始值以内 Within ±20% of the initial value (16V: within ±25% of the initial value)	
	损耗角正切 Dissipation Factor	≤150%初始规定值 Not more than 150% of the initial specified value	
	阻抗 Equivalent Series Resistance	≤150%初始规定值 Not more than 150% of the initial specified value	
稳态湿热 Damp heat(Steady state)	漏电流 Leakage Current	≤初始规定值 Not more than the initial specified value	
	60°C, 90~95% RH, 不加电压1000小时 60°C, 90~95% RH, 1000 hours, No-applied voltage.		
	电容量变化率 Capacitance Change	±20%初始值以内 Within ±20% of the initial value (16V: within ±25% of the initial value)	
	损耗角正切 Dissipation Factor	≤150%初始规定值 Not more than 150% of the initial specified value	
耐焊接热 Resistance to Soldering Heat	阻抗 Equivalent Series Resistance	≤150%初始规定值 Not more than 150% of the initial specified value	
	漏电流 Leakage Current	≤初始规定值 Not more than the initial specified value	
	( VPS ) (260°C X 10s)		
	电容量变化率 Capacitance Change	±10%初始值以内 Within ±10% of the initial value (16V以上: within ±15% of the initial value)	

### 尺寸图 Dimensions



### 尺寸表 Size List

D	4	5	6	8	10
F	1.5	2.0	2.5	3.5	5
d	0.45	0.5	0.6	0.6	0.6


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Size Code	UR (V)	CR ( $\mu$ F)	ESR ( $m\Omega$ max.)	Ripple 100KHZ (mArms)	Leakage current( $\mu$ A) (max.)	Size Code	UR (V)	CR ( $\mu$ F)	ESR ( $m\Omega$ max.)	Ripple 100KHZ (mArms)	Leakage current( $\mu$ A) (max.)
8×9	6.3	820	12	5100	1033	10×10	25	56	30	3100	280
	4	470	12	5300	376		25	100	30	3100	500
	4	560	12	5400	448		25	150	30	3900	750
	4	820	12	5400	656		20	150	30	3900	600
	4	1000	12	5400	800		20	220	30	3900	880
	2.5	470	12	5400	235		20	270	30	3900	1080
	2.5	560	12	5400	280		20	330	30	3900	1320
	2.5	820	12	5400	410		20	390	30	3900	1560
	2.5	1000	12	5400	500		16	330	14	4700	1056
	2.5	1200	12	5400	600		16	390	14	4700	1248
8×10	25	33	30	2700	200	10×12	16	470	14	4700	1504
	20	100	30	3100	400		10	470	14	4700	940
	16	180	14	4700	576		10	560	14	5400	1120
	16	220	14	4700	704		6.3	820	12	5400	1033
	16	270	14	4700	864		4	1000	12	5400	800
	16	330	14	4700	1056		4	1200	12	5400	960
	10	330	14	4700	660		2.5	1000	12	5400	500
	6.3	470	12	5100	592		2.5	1200	12	5400	600
	6.3	560	12	5400	706		2.5	1500	12	5400	750
	6.3	820	12	5400	1033		25	150	30	3100	750
	4	560	12	5400	448		25	220	30	3100	1100
	4	680	12	5400	544		20	150	30	3100	600
	4	820	12	5400	656		20	220	30	3100	880
	4	1000	12	5400	800		20	270	30	3100	1080
	2.5	680	12	5400	340		20	330	30	3100	1320
	2.5	820	12	5400	410		20	390	30	3100	1560
	2.5	1000	12	5400	500		20	470	30	3100	1880
	2.5	1200	12	5400	600		16	330	14	4700	1056
8×12	25	100	30	3100	500	10×12	16	390	14	4700	1248
	20	100	30	3100	400		16	470	14	4700	1504
	20	150	30	3100	600		16	560	14	4700	1792
	16	220	14	4700	704		10	560	14	4700	1120
	16	270	14	4700	864		10	680	14	4700	1360
	16	330	14	4700	1056		6.3	820	12	5400	1033
	16	390	14	4700	1248		6.3	1000	12	5400	1260
	10	330	14	4700	660		4	1000	12	5400	800
	10	390	14	4700	780		4	1200	12	5400	960
	10	470	14	4700	940		4	1500	12	5400	1200
	6.3	820	12	5400	1033		2.5	1000	12	5400	500
	6.3	1000	12	5400	1260		2.5	1200	12	5400	600
	2.5	820	12	5400	410		2.5	1500	12	5400	750
	2.5	1000	12	5400	500		2.5	2200	12	5400	1100
	2.5	1200	12	5400	600						
	2.5	1500	12	5400	750						

ESR(100KHZ to 300KHZ)

# PC PC 高分子导电型(低阻抗品)——插件型

## Conductive polymer type(Low ESR type)-----Radial type

### 特点 Features

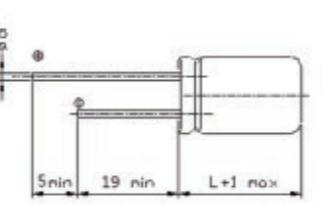
- 径向引线型，以PE为基础的高分子导电型。  
This is a lead type using conductive polymer based on PE
- 可适于无铅焊  
Lead free-flow is supported
- ROHS指令已对应完毕。Adapted to the ROHS directive.



### 主要技术性能 Specifications

项目 Items	特性 Characteristics		
工作温度范围 Operating Temperature Range	-55°C ~ +105°C		
额定电压范围 Rated Voltage Range	2.5V ~ 2.5V		
标称电容范围 Nominal Capacitance Range	3.3 ~ 2200 $\mu$ F		
标称电容允许偏差 Nominal Capacitance Tolerance	$\pm 20\%$ ( 20°C , 120Hz )		
漏电流 Leakage Current	≤表1规定值 Less than or equal to the value of table1 2分钟 at 20°C, after 2 minutes		
损耗角正切 ( tgδ ) Dissipation Factor (Max)	20°C, 120Hz	直径 tgδ	Φ4~Φ5 0.10 Φ6.3~Φ10 0.08
ESR	≤表1规定值 Less than or equal to the value of table1		
高低温特性比 Characteristics of impedance ratio at high temp. and low temp	要求在100KHZ 20°C Based on the value at 100KHZ. +20°C	-55°C +105°C	Z/Z20°C Z/Z20°C 0.75 to 1.25 0.75 to 1.25
耐久性 Load Life	+105°C施加额定电压5000小时后，电容器应满足以下要求(Φ4&Φ5或制品高度在6mm以下的产品寿命：2000小时)： After 5000 hours' application of rated voltage at 105°C, the capacitor shall meet the following requirement: ( Load life time of Φ4 & Φ5 or the height not more than 6mm : 2000 hours )		
	电容量变化率 Capacitance Change	±20%初始值以内 Within ±20% of the initial value (16V: within ±25% of the initial value)	
	损耗角正切 Dissipation Factor	≤150%初始规定值 Not more than 150% of the initial specified value	
	阻抗 Equivalent Series Resistance	≤150%初始规定值 Not more than 150% of the initial specified value	
静态湿热 Damp heat(Steady state)	漏电流 Leakage Current	≤初始规定值 Not more than the initial specified value	
	60°C, 90~95% RH, 不加电压1000小时 60°C, 90~95% RH, 1000 hours, No-applied voltage.		
	电容量变化率 Capacitance Change	±20%初始值以内 Within ±20% of the initial value (16V: within ±25% of the initial value)	
	损耗角正切 Dissipation Factor	≤150%初始规定值 Not more than 150% of the initial specified value	
耐焊接热 Resistance to Soldering Heat	阻抗 Equivalent Series Resistance	≤150%初始规定值 Not more than 150% of the initial specified value	
	漏电流 Leakage Current	≤初始规定值 Not more than the initial specified value	
	( VPS ) (260°C X 10s)		
	电容量变化率 Capacitance Change	±10%初始值以内 Within ±10% of the initial value (16V以上: within ±15% of the initial value)	

### 尺寸图 Dimensions



### 尺寸表 Size List

D	4	5	6	8	10
F	1.5	2.0	2.5	3.5	5
d	0.45	0.5	0.6	0.6	0.6

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标称电容量、额定电压、额定纹波电流与尺寸对应表  
Nominal Capacitance, Rated Voltage, Rated Ripple Current and Case Size Table

Size Code	UR (V)	CR (μF)	ESR (mΩmax.)	Ripple 100KHZ (mArms)	Leakage current(μA) (max.)	Size Code	UR (V)	CR (μF)	ESR (mΩmax.)	Ripple 100KHZ (mArms)	Leakage current(μA) (max.)
4×5.4	16	3.3	75	1020	100	6.3×5.4	16	68	24	2400	218
	10	4.7	75	1020	100		16	82	24	2400	262
	10	6.8	75	1020	100		16	100	24	2400	320
	10	10	75	1020	100		10	47	15	1800	100
	10	15	75	1020	100		10	56	15	1800	112
	6.3	22	75	1020	100		10	120	15	2400	240
	4	33	75	1020	100		6.3	82	15	1800	103
							6.3	100	15	1950	126
5×5.4	20	10	75	1440	100	6.3×9	6.3	120	15	2780	151
	16	15	75	1440	100		6.3	220	15	3100	277
	16	22	75	1440	100		4	150	15	1950	120
	10	33	75	1500	100		4	220	15	2390	176
	6.3	47	75	1500	100		4	330	15	3300	264
	4	39	75	1500	100		2.5	220	15	3300	110
	4	68	75	1800	100		2.5	330	15	3300	165
							2.5	390	15	3300	195
5×7	6.3	220	15	3300	277	8×7	16	220	10	4700	704
	6.3	270	15	3300	340		16	270	10	4700	864
	10	100	15	3300	200		6.3	470	7	4700	592
	10	150	15	3300	300		6.3	560	7	4700	706
	16	100	15	3100	320		4	470	7	5400	376
5×8	6.3	330	15	3300	415		4	470	7	5400	376
	10	220	15	3300	440	8×12	2.5	560	7	5400	448
5×9	2.5	560	15	3300	280		2.5	820	7	6100	656
	6.3	390	15	3300	491		4	1000	7	6100	800
	6.3	470	15	3300	592		2.5	470	7	6100	235
	10	220	15	3100	440		2.5	560	7	6100	280
	10	270	15	3100	540		2.5	820	7	6100	410
	16	150	15	3100	480		2.5	1000	7	6100	500
							2.5	1200	7	6100	600
5.45×9	6.3	560	15	3900	705	8×10	25	33	24	2980	165
	7.5	470	15	3900	705		20	100	24	3320	400
	7.5	500	15	3900	750		16	180	10	5140	576
	7.5	560	15	3900	840		16	220	10	5100	704
	10	330	15	3900	660		16	270	10	5100	864
	12	330	15	3900	792		16	330	10	5100	1056
	16	220	15	3900	704		10	330	10	5100	660
							6.3	470	7	5700	592
6.3×5.4	25	6.8	24	1800	100		6.3	560	7	6100	706
	25	27	24	2400	135		6.3	820	7	6100	1033
	25	33	24	2400	165		4	1000	7	6100	800
	20	22	24	2500	100		4	1200	7	6100	960
	20	27	24	2500	108		2.5	1500	7	6100	750
	16	39	24	1820	125		2.5	1700	7	6100	1056
	16	47	24	2400	150		2.5	2200	7	6100	1100

Size Code	UR (V)	CR (μF)	ESR (mΩmax.)	Ripple 100KHZ (mArms)	Leakage current(μA) (max.)	Size Code	UR (V)	CR (μF)	ESR (mΩmax.)	Ripple 100KHZ (mArms)	Leakage current(μA) (max.)
8×7	2.5	820	7	5400	410	8×12	2.5	820	7	6100	410
	2.5	1000	7	5400	500		2.5	1000	7	6100	500
	16	270	10	5100	864		2.5	1200	7	6100	600
	16	330	10	5100	1056		2.5	1500	7	6100	750
	6.3	470	7	5400	592		25	56	24	3800	280
	6.3	560	7	5700	706		25	100	24	3900	500
	6.3	820	7	5700	1033		25	150	24	4320	750
	4	470	7	5900	376		20	150	24	4700	600
10×10	25	220	24	4700	880	10×12	25	150	24	3900	750
	20	270	24	4700	1080		25	220	24	3900	1100
	20	330	24	4700	1320		20	150	24	3900	600
	20	390	24	4700	1560		20	220	24	3900	880
	16	330	10	4720	1056		20	270	24	3900	1080
	16	390	10	5400	1248		20	330	24	3900	1320
	16	470	10	5400	1504		20	390	24	3900	1560
	10	470	10	5400	940		20	470	24	3900	1880
	10	560	10	5400	1120		16	330	10	5400	1056
	6.3	820	7	6100	1033		16	390	10	5400	1248
	4	1000	7	6100	800		16	470	10	5400	1504
	4	1200	7	6100	960						

**标称电容量、额定电压、额定纹波电流与尺寸对应表**  
**Nominal Capacitance, Rated Voltage, Rated Ripple Current and Case Size Table**

Size Code	UR (V)	CR ( $\mu$ F)	ESR (m $\Omega$ max.)	Ripple 100KHZ (mArms)	Leakage current( $\mu$ A) (max.)	Size Code	UR (V)	CR ( $\mu$ F)	ESR (m $\Omega$ max.)	Ripple 100KHZ (mArms)	Leakage current( $\mu$ A) (max.)
4×5.4	16	3.3	75	1020	100	6.3×5.4	16	68	24	2400	218
	10	4.7	75	1020	100		16	82	24	2400	262
	10	6.8	75	1020	100		16	100	24	2400	320
	10	10	75	1020	100		10	47	15	1800	100
	10	15	75	1020	100		10	56	15	1800	112
	6.3	22	75	1020	100		10	120	15	2400	240
	4	33	75	1020	100		6.3	82	15	1800	103
	20	10	75	1440	100		6.3	100	15	1950	126
5×5.4	16	15	75	1440	100		6.3	120	15	2780	151
	16	22	75	1440	100		6.3	220	15	3100	277
	10	33	75	1500	100		4	150	15	1950	120
	6.3	47	75	1500	100		4	220	15	2390	176
	4	39	75	1500	100		4	330	15	3300	264
	4	68	75	1800	100		2.5	220	15	3300	110
	6.3	220	15	3300	277		2.5	330	15	3300	165
	6.3	270	15	3300	340		2.5	390	15	3300	195
5×7	10	100	15	3300	200	6.3×9	16	220	10	4700	704
	10	150	15	3300	300		16	270	10	4700	864
	16	100	15	3100	320		6.3	470	7	4700	592
	6.3	330	15	3300	415		6.3	560	7	4700	706
5×8	10	220	15	3300	440		4	470	7	5400	376
	2.5	560	15	3300	280		4	560	7	5400	448
5×9	6.3	390	15	3300	491		2.5	470	7	5400	235
	6.3	470	15	3300	592		2.5	560	7	5400	280
	10	220	15	3100	440		2.5	820	7	5400	410
	10	270	15	3100	540		2.5	1000	7	5400	500
	16	150	15	3100	480		2.5	1200	7	5400	600
	6.3	560	15	3900	705		25	33	24	3100	100
	7.5	470	15	3900	705		20	33	24	3100	132
5.45×9	7.5	500	15	3900	750		20	47	24	3100	188
	7.5	560	15	3900	840		16	56	12	4700	179
	10	330	15	3900	660		16	82	12	4700	262
	12	330	15	3900	792		16	270	12	4700	864
	16	220	15	3900	704		10	120	12	4700	240
	25	6.8	24	1800	100		10	150	12	4700	300
	25	27	24	2400	135		6.3	220	7	4700	277
6.3×5.4	25	33	24	2400	165		4	150	7	4700	120
	20	22	24	2500	100		4	330	7	5400	264
	20	27	24	2500	108		4	470	7	5400	376
	16	39	24	1820	125		4	560	7	5400	448
	16	47	24	2400	150		2.5	470	7	5400	235
	2.5	560	7	5400	280		2.5	560	7	5400	1260

Size Code	UR (V)	CR ( $\mu$ F)	ESR (m $\Omega$ max.)	Ripple 100KHZ (mArms)	Leakage current( $\mu$ A) (max.)	Size Code	UR (V)	CR ( $\mu$ F)	ESR (m $\Omega$ max.)	Ripple 100KHZ (mArms)	Leakage current( $\mu$ A) (max.)
8×7	2.5	820	7	5400	410	8×9	2.5	820	10	5100	864
	2.5	1000	7	5400	500		16	330	10	5100	1056
	16	270	10	5100	592		6.3	470	7	5400	706
	16	330	10	5100	1033		6.3	820	7	5700	1033
	2.5	470	7	5900	376		4	1000	7	6100	800
	2.5	560	7	6100	235		2.5	470	7	6100	280
	2.5	820	7	6100	410		2.5	1000	7	6100	500
	2.5	1200	7	6100	600		2.5	1200	7	6100	600
8×10	25	33	24	2980	165	10×10	25	33	24	2980	165
	20	100	24	3320	400		20	100	24	3320	400
	16	180	10	5140	576		16	220	10	5100	704
	16	270	10	5100	864		16	330	10	5100	1056
	10	330	10	5100	660		10	330	10	5100	660
	6.3	470	7	5700	592		6.3	560	7	6100	706
	6.3	820	7	6100	1033		6.3	820	7	6100	1033
	2.5	470	7	6100	448		4	560	7	6100	448
8×12	2.5	1000	7	6100	800	10×12	2.5	1000	7	6100	800
	2.5	1200	7	6100	600		2.5	1200	7	6100	600
	25	100	24	3900	500		20	150	24	3900	600
	20	100	24	3900	400		16	220	24	3900	880
	20	150	24	3900	600		20	270	24	3900	1080
	16</										

# PF PF

## 高分子导电型(长寿命产品)一插件型

### Series Conductive polymer type(Long life type)lead type

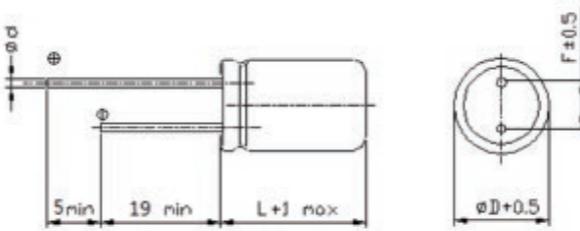
#### 特点 Features

- 径向引线型，以PC为基础的高分子导电型。  
This is a lead type using conductive polymer based on PE
- 可适于无铅焊  
Lead free-flow is supported
- ROHS指令已对应完毕。Adapted to the ROHS directive.

#### 主要技术性能 Specifications

项目 Items	特性 Characteristics		
工作温度范围 Operating Temperature Range	-55°C ~ +105°C		
额定电压范围 Rated Voltage Range	2.5V ~ 25V		
标称电容量范围 Nominal Capacitance Range	3.3 ~ 2200μF		
标称电容量允许偏差 Nominal Capacitance Tolerance	±20% ( 20°C , 120Hz )		
漏电流 Leakage Current	≤表1规定值 Less than or equal to the value of table1 2分钟 at 20°C, after 2 minutes		
损耗角正切 ( tgδ ) Dissipation Factor (Max)	20°C, 120Hz	直径 Φ6.3~Φ10	tgδ 0.08
ESR	≤表1规定值 Less than or equal to the value of table1		
高低温特性比 Characteristics of impedance ratio at high temp. and low temp	要求在100KHZ 20°C Based the value at 100KHZ. +20°C -55°C Z/Z20°C 0.75 to 1.25 +105°C Z/Z20°C 0.75 to 1.25		
耐久性 Load Life	+105°C施加额定电压5000小时后，电容器应满足以下要求 After 5000 hours' application of rated voltage at 105°C, the capacitor shall meet the following requirement:		
	电容量变化率 Capacitance Change	±20%初始值以内 Within ±20% of the initial value (16V: within ±25% of the initial value)	
	损耗角正切 Dissipation Factor	≤ 150%初始规定值 Not more than 150% of the initial specified value	
	阻抗 Equivalent Series Resistance	≤ 150%初始规定值 Not more than 150% of the initial specified value	
	漏电流 Leakage Current	≤ 初始规定值 Not more than the initial specified value	
稳态湿热 Damp heat(Steady state)	60°C, 90~95% RH, 不加电压1000小时 60°C, 90~95% RH, 1000 hours, No-applied voltage.		
	电容量变化率 Capacitance Change	±20%初始值以内 Within ±20% of the initial value (16V: within ±25% of the initial value)	
	损耗角正切 Dissipation Factor	≤ 150%初始规定值 Not more than 150% of the initial specified value	
	阻抗 Equivalent Series Resistance	≤ 150%初始规定值 Not more than 150% of the initial specified value	
	漏电流 Leakage Current	≤ 初始规定值 Not more than the initial specified value	
耐焊接热 Resistance to Soldering Heat	( VPS ) (260°C X 10s)		
	电容量变化率 Capacitance Change	±10%初始值以内 Within ±10% of the initial value (16V以上: within ±15% of the initial value)	
	损耗角正切 Dissipation Factor	≤ 初始规定值 Not more than the initial specified value	
	阻抗 Equivalent Series Resistance	≤ 初始规定值 Not more than the initial specified value	
	漏电流 Leakage Current	≤ 初始规定值 Not more than the initial specified value	

尺寸图 Dimensions



尺寸表 Size List

单位Unit:mm

D	6	8	10
F	2.5	3.5	5
d	0.6	0.6	0.6

标称电容量、额定电压、额定纹波电流与尺寸对应表

Nominal Capacitance, Rated Voltage, Rated Ripple Current and Case Size Table

Size Code	UR (V)	CR (μF)	ESR (mΩmax.)	Ripple 100KHZ (mArms)	Leakage current(μA) (max.)	Size Code	UR (V)	CR (μF)	ESR (mΩmax.)	Ripple 100KHZ (mArms)	Leakage current(μA) (max.)
6.3×9	2.5	470	7	5400	235	8×12	16	330	10	5100	1056
	2.5	560	7	5400	280		16	390	10	5100	1248
	2.5	820	7	5400	410		25	100	24	3900	500
	2.5	1000	7	5400	500		25	220	25	4100	1100
	4	470	7	5400	376		2.5	1000	7	6100	500
	4	560	7	5400	448		2.5	1200	7	6100	600
	6.3	470	7	4700	592		2.5	1500	7	6100	750
	6.3	560	7	4700	706		2.5	2200	7	6100	1100
	16	220	10	4700	704		4	1000	7	6100	800
	25	47	25	2100	235		4	1200	7	6100	960
8×9	2.5	560	7	6100	280	10×12	2.5	560	7	6100	1200
	2.5	820	7	6100	410		6.3	820	7	6100	1033
	2.5	1000	7	6100	500		6.3	1000	7	6100	1260
	2.5	1200	7	6100	600		10	560	10	5400	1120
	4	470	7	5900	376		10	680	10	5400	1360
	4	560	7	6100	448		16	330	10	5400	1056
	4	820	7	6100	656		16	390	10	5400	1248
	4	1000	7	6100	800		16	470	10	5400	1504
	6.3	560	7	5700	706		16	560	10	5400	1792
	6.3	820	7	5700	1033		20	150	25	3900	600
8×12	16	270	10	5100	864		20	220	25	3900	880
	16	330	10	5100	1056		20	270	25	3900	1080
	2.5	1000	7	6100	500		20	330	25	3900	1320
	2.5	1200	7	6100	600		20	390	25	3900	1560
	6.3	820	7	6100	1033		20	470	25	3900	1880
16	10	390	10	5400	780		25	150	25	3900	750
	16	270	10	5100	864		25	220	25	3900	1100
	2.5	1000	7	6100	1260		20	330	25	3900	
	2.5	1200	7	6100			20	390	25	3900	

ESR(100KHZ to 300KHZ)

如客户需要的规格尺寸可协调设计定制