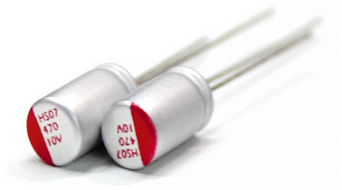
HS 系列 HS series

•105℃、2000 小时寿命保证 105℃, 2000 hours life guarantee

•极低等效串联电阻(ESR)并可承受大纹波电流

Very low equivalent series resistance (ESR) and can withstand large ripple currents

•符合 ROHS 和 REACH 指令 Comply with the ROHS and REACH directives



◆标准品一览表 List of standards

WV	Cap (μF)	尺寸 ΦDxL(mm)	损失角正切值(tanδ) (20℃, 120Hz)	漏电流 (μA)(max)	等效串联电阻 (ESR) (mΩ max./20℃, 100kHz)	额定纹波电流 (mArms/105℃, 100kHz)	产品代码
2.5V	470	6.3X7	0.08	500	18	2690	HS0E477M0607PC
	560	6.3X7	0.08	500	18	2690	HS0E567M0607PC
		6.3X8	0.08	500	16	4100	HS0E567M0608PC
	680	6.3X8	0.08	500	16	4100	HS0E687M0608PC
		6.3X9	0.08	500	14	4500	HS0E687M0609PC
	820	6.3X8	0.08	500	16	4100	HS0E827M0608PC
		6.3X9			14	4500	HS0E827M0609PC
	1000	6.3X9	0.08	500	14	4500	HS0E108M0609PC
		8X8			14	4500	HS0E108M0808PC
	1500	8X8	0.08	750	14	4500	HS0E158M0808PC
		8X11.5			14	4750	HS0E158M0811PC
	2200	8X11.5	0.08	1100	14	4900	HS0E228M0811PC
		10X12			14	4900	HS0E228M1012PC
	3300	10X12	0.08	1650	14	4900	HS0E338M1012PC
	4700	10X13.5	0.08	2350	14	4900	HS0E478M1013PC
	5600	10X16	0.08	2800	14	4900	HS0E568M1016PC
	6800	10X16	0.08	3400	14	4900	HS0E688M1016PC
6.3V	100	5X5.5	0.08	500	28	1350	HS0J107M0505PC
		5X7			25	1650	HS0J107M0507PC
	180	5X7	0.08	500	21	2350	HS0J187M0507PC
	220	5X7	0.08	500	18	2690	HS0J227M0507PC
		6.3*5.5			25	2690	HS0J227M0605PC
	270	5X7	0.08	500	21	2690	HS0J277M0507PC
		6.3*5.5			22	2690	HS0J277M0605PC
	330	5X8	0.08	500	16	2690	HS0J337M0508PC
		6.3X5.5			22	2690	HS0J337M0605PC
	390	5X9	0.08	500	16	2690	HS0J397M0509PC

WV	Cap (μF)	尺寸 ΦDxL(mm)	损失角正切值(tanδ) (20℃, 120Hz)	漏电流 (μA)(max)	等效串联电阻（ESR） (mΩ max./20℃, 100kHz)	额定纹波电流 (mArms/125℃, 100kHz)	产品代码
6.3V	470	5X9	0.08	592	16	2690	HS0J477M0509PC
		6.3X7		500	16	4100	HS0J477M0607PC
	500	5.5X7	0.08	630	16	3650	HS0J507M5507PC
	560	5X11.5	0.08	706	16	3500	HS0J567M0511PC
		5.5X9			16	4100	HS0J567M5509PC
		6.3X7			16	3950	HS0J567M0607PC
		6.3X8			16	4100	HS0J567M0608PC
	680	5.5X9	0.08	857	14	4150	HS0J687M5509PC
		6.3X8			16	4500	HS0J687M0608PC
		8X8			14	4500	HS0J687M0808PC
	820	5.5X11.5	0.10	1033	16	4250	HS0J827M5511PC
		6.3X8			16	4300	HS0J827M0608PC
		6.3X9			16	4500	HS0J827M0609PC
		8X8			14	4500	HS0J827M0808PC
	1000	6.3X10.5	0.10	1260	14	4500	HS0J108M0610PC
		6.3X11.5	0.10	752	14	4350	HS0J108M0611PC
		8X8			14	4500	HS0J108M0808PC
		8X11.5		1600	14	4700	HS0J108M0811PC
	1500	6.3X11.5	0.10	1890	14	4650	HS0J158M0611PC
		8X11.5	0.12	500	14	4800	HS0J158M0811PC
		10X12		500	14	4900	HS0J158M1012PC
	1800	8X16	0.10	2268	14	4900	HS0J188M0816PC
	2200	8X16	0.10	2772	14	4900	HS0J228M0816PC
		10X12			14	4900	HS0J228M1012PC
	3300	8X16	0.10	4158	14	5100	HS0J338M0816PC
		10X12	0.12	2000	14	5100	HS0J338M1012PC
	4700	10X16	0.10	3760	14	5350	HS0J478M1016PC
	5600	10X16	0.10	4480	14	5500	HS0J568M1016PC

WV	Cap (μF)	尺寸 ΦDxL(mm)	损失角正切值(tanδ) (20℃, 120Hz)	漏电流 (μA)(max)	等效串联电阻 (ESR) (mΩ max./20℃, 100kHz)	额定纹波电流 (mArms/105℃, 100kHz)	产品代码
7.5V	220	6.3X5.5	0.08	500	28	2690	HS0Q227M0605PC
	330	5X11.5	0.08	500	18	3100	HS0Q337M0511PC
	470	6.3X7	0.08	705	16	3350	HS0Q477M0607PC
	500	5X11.5	0.08	750	14	3500	HS0Q507M0511PC
		5.5X9			14	3500	HS0Q507M5509PC
	560	6.3X8	0.08	840	14	3800	HS0Q567M0608PC
		8X8			14	4100	HS0Q567M0808PC
	680	6.3X9	0.10	1020	14	4350	HS0Q687M0609PC
		8X8			14	4350	HS0Q687M0808PC
	820	6.3X11.5	0.10	1230	14	4500	HS0Q827M0611PC
		8X8			14	4500	HS0Q827M0808PC
	1000	6.3X11.5	0.10	1500	14	4500	HS0Q108M0611PC
		8X11.5			14	4650	HS0Q108M0811PC
	1500	6.3X15	0.10	2250	14	4750	HS0Q158M0615PC
		8X11.5			14	4900	HS0Q158M0811PC
	2200	8X16	0.10	3300	14	5100	HS0Q228M0816PC
		10X12			14	5100	HS0Q228M1012PC
	3300	10X13.5	0.10	4950	14	5250	HS0Q338M1013PC
		10X16			14	5400	HS0Q338M1016PC
	4700	10X16	0.10	7050	14	5500	HS0Q478M1016PC
10V	100	5X7	0.08	500	28	2350	HS1A107M0507PC
		6.3X5.5			38	2250	HS1A107M0605PC
	220	5X8	0.08	500	16	2690	HS1A227M0508PC
		6.3X7			16	2950	HS1A227M0607PC
		6.3X8			16	3100	HS1A227M0608PC
	330	6.3X8	0.08	660	16	3300	HS1A337M0608PC
	470	5X11.5	0.08	940	16	3400	HS1A477M0511PC
		6.3X8			14	3500	HS1A477M0608PC
		8X8			14	3650	HS1A477M0808PC
	560	6.3X9	0.08	1120	14	3700	HS1A567M0609PC
		8X8			14	4100	HS1A567M0808PC
	680	6.3X11.5	0.10	1360	14	4200	HS1A687M0611PC
		8X11.5			14	4500	HS1A687M0811PC
	820	6.3X11.5	0.10	1640	14	4650	HS1A827M0611PC
		8X11.5			14	4700	HS1A827M0811PC
	1000	8X11.5	0.10	2000	14	4850	HS1A108M0811PC
	1500	10X12	0.10	3000	14	4900	HS1A158M1012PC
	2200	10X12	0.10	4400	10	5300	HS1A228M1012PC
	3300	10X16	0.10	6600	10	5650	HS1A338M1016PC

WV	Cap (μF)	尺寸 ΦDxL(mm)	损失角正切值(tanδ) (20℃, 120Hz)	漏电流 (μA)(max)	等效串联电阻（ESR） (mΩ max./20℃, 100kHz)	额定纹波电流 (mArms/105℃, 100kHz)	产品代码
12V	330	5X9	0.10	792	18	2900	HS1B337M0509PC
	330	5.5X9	0.10	792	16	3500	HS1B337M5509PC
	470	6.3X8	0.10	1128	16	3650	HS1B477M0608PC
	560	6.3X11.5	0.10	1344	14	3800	HS1B567M0611PC
	680	6.3X11.5	0.10	1632	14	3900	HS1B687M0611PC
	820	8X11.5	0.10	1968	14	4000	HS1B827M0811PC
	1000	8X11.5	0.10	2400	14	4200	HS1B108M0811PC
	1500	8X16	0.10	3600	12	4500	HS1B158M0816PC
	2200	10X13.5	0.10	5280	12	4900	HS1B228M1013PC
	3300	10X16	0.10	7920	12	5400	HS1B338M1016PC
16V	22	5X7	0.12	500	45	650	HS1C226M0507PC
	47	5X7	0.12	500	48	950	HS1C476M0507PC
		6.3X5.5	0.12	500	38	980	HS1C476M0605PC
	100	5X7	0.12	500	25	2250	HS1C107M0507PC
		6.3X5.5			38	1950	HS1C107M0605PC
		6.3X7			22	2350	HS1C107M0607PC
		6.3X8			22	2600	HS1C107M0608PC
	180	5X8	0.12	576	20	2690	HS1C187M0508PC
		6.3X7			20	2800	HS1C187M0607PC
	220	5X9	0.12	704	20	2850	HS1C227M0509PC
		6.3X7			18	2900	HS1C227M0607PC
		6.3X8			16	3000	HS1C227M0608PC
	270	5X11.5	0.12	864	16	3100	HS1C277M0511PC
		6.3X8			16	3200	HS1C277M0608PC
	330	5X11.5	0.12	1056	18	3200	HS1C337M0511PC
		5.5X11.5			16	3100	HS1C337M5511PC
		6.3X7			18	3100	HS1C337M0607PC
		6.3X9			16	3300	HS1C337M0609PC
		8X8			14	3700	HS1C337M0808PC
	470	5.5X11.5	0.12	1504	16	3500	HS1C477M5511PC
		6.3X9			16	3500	HS1C477M0609PC
		6.3X10.5			16	3500	HS1C477M0610PC
		8X8			14	3800	HS1C477M0808PC
		8X11.5			14	4100	HS1C477M0811PC
		10X12			14	4500	HS1C477M1012PC
	560	5.5X11.5	0.12	1792	16	3600	HS1C567M5511PC
		6.3X11.5			14	3800	HS1C567M0611PC
		8X8			14	3950	HS1C567M0808PC
		8X11.5			14	4200	HS1C567M0811PC
		10X12			12	4600	HS1C567M1012PC

WV	Cap (μF)	尺寸 ΦDxL(mm)	损失角正切值(tanδ) (20℃, 120Hz)	漏电流 (μA)(max)	等效串联电阻（ESR） (mΩ max./20℃, 100kHz)	额定纹波电流 (mArms/105℃, 100kHz)	产品代码
16V	680	6.3X11.5	0.12	2176	16	4150	HS1C687M0611PC
		6.3X15			14	4500	HS1C687M0615PC
		8X11.5			12	4500	HS1C687M0811PC
		10X12			12	4900	HS1C687M1012PC
	820	6.3X11.5	0.12	2624	14	4500	HS1C827M0611PC
		6.3X15			14	4700	HS1C827M0615PC
		8X11.5			12	4750	HS1C827M0811PC
		10X12			12	4900	HS1C827M1012PC
	1000	8X11.5	0.12	3200	14	4800	HS1C108M0811PC
		8X13.5			14	4900	HS1C108M0813PC
		8X16			12	5100	HS1C108M0816PC
		10X12			12	5100	HS1C108M1012PC
	1200	8X16	0.12	3840	12	5250	HS1C128M0816PC
		10X12			12	5250	HS1C128M1012PC
	1500	8X16	0.12	4800	12	5300	HS1C158M0816PC
		10X12			12	5300	HS1C158M1012PC
		10X16			12	5500	HS1C158M1016PC
	2200	10X16	0.12	7040	12	5800	HS1C228M1016PC
	3300	10X16	0.12	10560	18	6100	HS1C338M1016PC
20V	100	5X7	0.12	500	38	2450	HS1D107M0507PC
	220	6.3X8	0.12	880	25	2800	HS1D227M0608PC
	330	6.3X9	0.12	1320	25	3100	HS1D337M0609PC
	470	6.3X11.5	0.12	1880	25	3250	HS1D477M0611PC
	560	6.3X15	0.12	2240	22	3500	HS1D567M0615PC
		8X11.5			20	3500	HS1D567M0811PC
	680	6.3X15	0.12	2720	22	3650	HS1D687M0615PC
		8X11.5			20	3650	HS1D687M0811PC
	820	8X13.5	0.12	3280	20	3900	HS1D827M0813PC
		10X12			20	3900	HS1D827M1012PC
	1000	8X16	0.12	4000	20	4200	HS1D108M0816PC
		10X12			20	4200	HS1D108M1012PC
	1500	10X13.5	0.12	6000	20	4500	HS1D158M1013PC
		10X16			20	4700	HS1D158M1016PC
	2200	10X16	0.12	8800	20	4900	HS1D228M1016PC
25V	10	5X8	0.12	500	85	1950	HS1E106M0508PC
	22	5X7	0.12	500	68	2000	HS1E226M0507PC
	33	6.3X5.5	0.12	500	58	2100	HS1E336M0605PC
	47	5X8	0.12	500	45	2250	HS1E476M0508PC
		6.3X5.5			48	2200	HS1E476M0605PC
		6.3X7			45	2350	HS1E476M0607PC

WV	Cap (μF)	尺寸 ΦDxL(mm)	损失角正切值(tanδ) (20℃, 120Hz)	漏电流 (μA)(max)	等效串联电阻（ESR） (mΩ max./20℃, 100kHz)	额定纹波电流 (mArms/105℃, 100kHz)	产品代码
25V	56	5X8	0.12	500	45	2350	HS1E566M0508PC
	82	6.3X7	0.12	500	45	2550	HS1E826M0607PC
	100	5X7	0.12	500	48	2150	HS1E107M0507PC
		5X8			38	2450	HS1E107M0508PC
		5X11.5			38	2900	HS1E107M0511PC
		6.3X5.5			48	2450	HS1E107M0605PC
		6.3X7			45	2750	HS1E107M0607PC
		6.3X8			32	2900	HS1E107M0608PC
		8X8			20	3500	HS1E107M0808PC
		8X11.5			20	3750	HS1E107M0811PC
	120	5X9	0.12	600	38	2850	HS1E127M0509PC
		6.3X8			32	3050	HS1E127M0608PC
	150	5X9	0.12	780	35	2950	HS1E157M0509PC
		5.5X9			35	3250	HS1E157M5509PC
		6.3X7			32	3200	HS1E157M0607PC
	180	5X9	0.12	900	35	3100	HS1E187M0509PC
		6.3X7			32	3300	HS1E187M0607PC
		8X8			20	3900	HS1E187M0808PC
	220	5X11.5	0.12	1100	35	3100	HS1E227M0511PC
		5.5X9			35	3200	HS1E227M5509PC
		5.5X11.5			35	3550	HS1E227M5511PC
		6.3X7			35	3350	HS1E227M0607PC
		6.3X8			35	3500	HS1E227M0608PC
		6.3X9			32	3700	HS1E227M0609PC
		8X10.5			20	4100	HS1E227M0810PC
		8X11.5			20	4300	HS1E227M0811PC
	270	5X11.5	0.12	1350	35	3250	HS1E277M0511PC
		5.5X9			35	3250	HS1E277M5509PC
		6.3X9			32	3800	HS1E227M0609PC
	330	5X15	0.12	1650	35	3350	HS1E337M0515PC
		5.5X11.5			35	3650	HS1E337M5511PC
		6.3X9			35	3750	HS1E337M0609PC
		6.3X11.5			35	3800	HS1E337M0611PC
		8X8			28	4250	HS1E337M0808PC

WV	Cap (μF)	尺寸 ΦDxL(mm)	损失角正切值(tanδ) (20℃, 120Hz)	漏电流 (μA)(max)	等效串联电阻（ESR） (mΩ max./20℃, 100kHz)	额定纹波电流 (mArms/105℃, 100kHz)	产品代码
25V	330	8X11.5	0.12	1650	28	4500	HS1E337M0811PC
		10X12			20	4900	HS1E337M1012PC
	470	5.5X15	0.12	2350	35	3750	HS1E477M5515PC
		6.3X11.5			35	3900	HS1E477M0611PC
		6.3X15			35	4100	HS1E477M0615PC
		8X8			28	4250	HS1E477M0808PC
		8X11.5			28	4750	HS1E477M0811PC
		8X16			20	4900	HS1E477M0816PC
		10X12			20	4900	HS1E477M1012PC
	560	5.5X15	0.12	2800	35	3850	HS1E567M5515PC
		6.3X15			35	4300	HS1E567M0615PC
		8X11.5			28	5100	HS1E567M0811PC
	680	6.3X15	0.12	3400	35	4500	HS1E687M0615PC
		8X11.5			28	5100	HS1E687M0811PC
		8X16			20	5250	HS1E687M0816PC
		10X12			20	5250	HS1E687M1012PC
	820	6.3X15	0.12	4100	35	4700	HS1E827M0615PC
		8X13.5			28	5400	HS1E827M0813PC
		8X16			20	5500	HS1E827M0816PC
		10X12			20	5500	HS1E827M1012PC
	1000	8X16	0.12	5000	20	5650	HS1E108M0816PC
		10X12			20	5650	HS1E108M1012PC
		10X16			20	5700	HS1E108M1016PC
	1200	10X16	0.12	6000	20	5800	HS1E128M1016PC
	1500	10X16	0.12	7500	20	5900	HS1E158M1016PC
	2200	10X16	0.12	11000	20	6100	HS1E228M1016PC

◆**纹波电流频率系数** Ripple current frequency coefficient

频率 Frequency	120Hz ≦ f ＜1 kHz	1 KHz ≦ f ＜10 kHz	10 KHz≦ f ＜100 kHz	100 KHz ≦ f ＜500 kHz
系数 Coefficient	0.05	0.3	0.7	1.00

索引 Index	
1>	物料编码 material code.
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4>	产品结构图 Product Structure Diagram
5>	产品尺寸 Product Size
6>	产品特性 Characteristics
7>	高温负荷寿命试验 High temperature load life test
8>	浪涌电压试验 Surge voltage test
9>	稳态湿热试验 Damp heat(steady state)
10>	温度特性试验 Characteristics at high and low temperature
11>	快速变温试验 Rapid change of temperature
12>	端子强度试验 Lead strength test
13>	振动试验 Vibration test
14>	可焊性试验 Weldability test
15>	焊锡耐热试验 Solder Heat Resistance Test
16>	包装数量 Packing quantity
17>	使用安装注意事项 Precautions for use and installation
18>	环保 Environmental protection

1> 物料编码 material code

HS 1E 107 M 0608 PC

- 其他编码 Form coding（1.7）
- 成型方式编码 Form coding(1.6)
- 尺寸编码 Size code(1.5)
- 电容公差编码 Capacitance tolerance Code (1.4)
- 电容量编码 Capacitance Code(1.3)
- 电压编码 Voltage Code(1.2)
- 系列编码 Category Code(1.1)

1.1 系列编码 Series Code

编码 Code	HS
系列编码 Series Code	HS

1.2 电压编码 Voltage Code

编码 Code	0E	0J	0Q	1A	1B	1C	1D	1E
电压编码 VoltageCode(W.V)	2.5	6.3	7.5	10	12	16	20	25

1.3 电容量编码 Capacitance Code

编码 Code	476	107	227	337	477	567	687	827	108
电容量 Capacitance (uF)	47	100	220	330	470	560	680	820	1000

1.4 电容公差编码 Capacitance tolerance coding

“M”代表-20%～+20% “ M” stands for -20%～+20%

1.5 尺寸编码 Size code

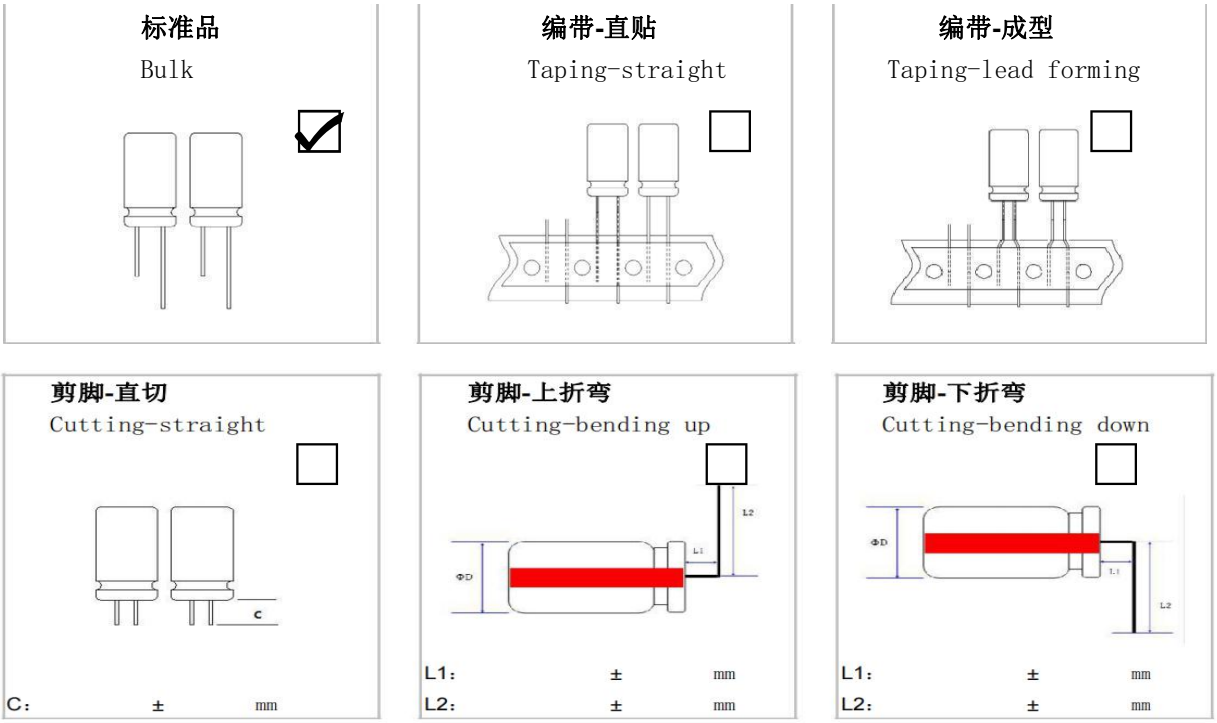
编码 Code	0507	0508	0608	0609	0610	0808	0811	1010	1012
直径 D (Φ)	5	5	6.3	6.3	6.3	8	8	10	10
高度 H (mm)	7	8	8	9	10.5	8	11.5	10	12

1.6 成型方式编码 Form coding

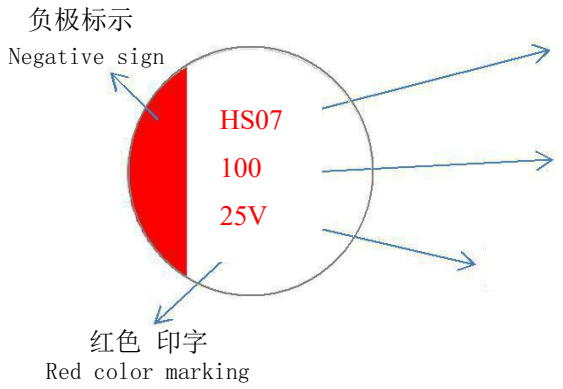
编码 Code	PC	PJ	PB	PZ
其他 Other	平豆散装 Platform rubber& In bulk	平豆剪脚 Platform rubber &Lead Cut3.5±0.3mm	平豆编带 Platform rubber& Taping Pitch=2.5mm	座板 Right lying Bending 2.2±0.5mm

1.7 其他编码 Form coding

2> 电容引脚加工方式 Capacitor Lead Processing



3> 印字 Markin

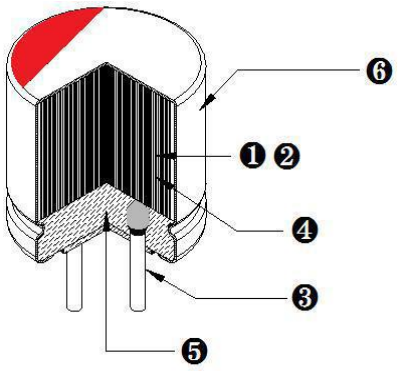


HS ：系列为 HS HS Series
07 ：月编码month code (7)

100 ：容量为 100uF Capacitance is 100uF

25V ：额定电压为 25V Rated working voltage is 25V

4> 产品结构图 Product Structure Diagram



❶ **阳极箔：高纯铝化成箔**
Anode foil: high pure aluminum formation foil

❷ **阴极箔：高纯铝碳箔**
Cathode foil: high pure aluminum carbon foil

❸ **导针：高纯铝，引线为镀锡铜包钢线**
leader pin: high pure aluminum,lead is tin copper clad steel wire

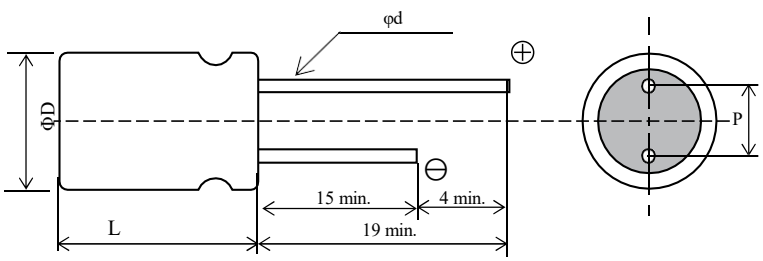
❹ **电解纸：马尼拉麻**
Electrolytic paper: Manila hemp

❺ **胶盖：橡胶**
Sealing: rubber

❻ **铝壳：高纯铝，涂层铝壳**
Aluminum can: high purity aluminum, coated aluminum can

5> 产品尺寸 Product Size

◆尺寸图［mm］



Π	5.0	5.5	6.3	8.0	10.0
P	2.0	2.5	2.5	3.5	5.0
Φd	0.5	0.5	0.5/0.6	0.6	0.6
ΦD	ΦD±0.5				
L	L±1.0				

单位：mm

6> 产品特性 Characteristics

1.标准测试条件

Standard test conditions

除非另有规定，所有测试环境应当在以下条件下进行：

Unless otherwise specified,all tests shall be performed at following conditions:

环境温度： 15-35 ℃

Ambient temperature: 15-35 ℃

相对湿度： 45-75% RH

Relative humidity: 45-75% RH

气压： 86-106 Kpa

Air pressure 86-106 Kpa

测试疑虑时，在以下条件下确认测量结果：

Any testing doubt, confirm the measurement results under the following conditions:

环境温度： 20±2 ℃

Ambient temperature: 20±2 ℃

相对湿度： 60-70% RH

Relative humidity: 60-70% RH

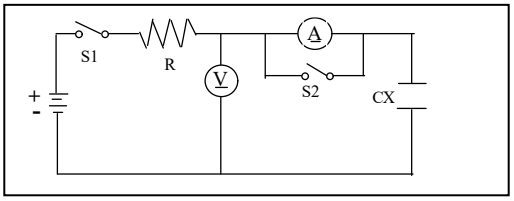
气压： 86-106 Kpa

Air pressure 86-106 Kpa

3.特性参数说明 Description

NO.	特性 Characteristics	单位 unit	说明 Description
1	容量 capacitance	uF	**产品标称容量，测试频率：120HZ，在规定容量公差内** Product nominal capacity, test frequency: 120HZ, within the specified capacity tolerance
2	电压 working voltage	V	**产品额定电压** Rated working voltage
3	损失角 Dissipation Factor	%	**也称损耗，测试频率：120HZ** Also calls dissipation, test frequency: 120HZ
4	阻抗 ESR Impedance	mΩ	**等效串联电阻，测试频率 100KHZ** Equivalent series resistance, test frequency 100KHZ
5	纹波电流 RC Ripple Current	mA rms	**最大许可纹波电流为 100KHZ 下最大 A.C 电流** The maximum allowable ripple current is 100KHZ, the largest A.C current
			DC 电压和峰值 AC 电压总和不可超出额定电压，不可反向充电 The DC voltage plus the peak AC voltage must not exceed the rated voltage,and non-reverse charging

频率 HZ Frequency	120≤f<1k	1K≤f<10K	10K≤f<100K	100K≤f<500K
系数 coefficient	0.05	0.3	0.7	1

6	漏电流 LC Leak Current	uA	**泄漏电流，产品施加额定电压，充电 2 分钟后测试漏电值** Leakage current, after charging for 2 minutes, test the leakage current value of product
			
7	外形尺寸 Φ DXL Dimensions	mm	产品外径、高度 Diameter、Height