

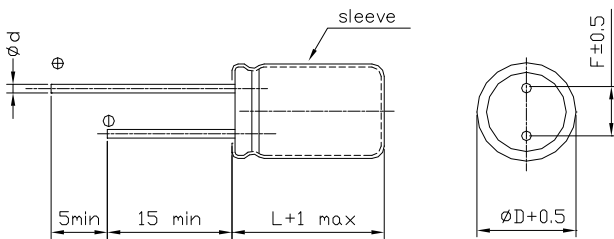
ZS 标准品

- 低阻抗，7(9) mm 高度，宽工作温度
Low impedance, with 7(9)mm height, wide operating temperature range.
- ROHS 指令（2002/95/EC）已对应完毕。
Adapted to the ROHS directive（2002/95/EC）.

项目 Item	特性 Performance Characteristics																					
使用温度范围 Operating temperature range	-40 ~ +105℃																					
额定电压范围 Rated voltage range	6.3 ~ 50 V																					
标称电容量范围 Nominal capacitance range	2.2~ 560μF																					
标称电容量允许偏差 Capacitance tolerance	± 20% (120Hz, +20℃)																					
漏电流 Leakage current	$I \leq 0.01CV$ or $3(\mu A)$ 2分钟(at 20℃, after 2 minutes) 取较大者 (whichever is greater)																					
损耗角正切值 (tg δ) Dissipation factor (+20℃, 120Hz)	<table border="1"> <thead> <tr> <th>U_R (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td>tg δ</td> <td>0.18</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.10</td> </tr> </tbody> </table>	U _R (V)	6.3	10	16	25	35	50	tg δ	0.18	0.16	0.14	0.12	0.10	0.10							
U _R (V)	6.3	10	16	25	35	50																
tg δ	0.18	0.16	0.14	0.12	0.10	0.10																
温度特性 Temperature characteristics (Impedance ratio at 120Hz)	<table border="1"> <thead> <tr> <th>U_R (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td>Z-25℃ / Z+20℃</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-40℃ / Z+20℃</td> <td>10</td> <td>8</td> <td>8</td> <td>6</td> <td>5</td> <td>3</td> </tr> </tbody> </table>	U _R (V)	6.3	10	16	25	35	50	Z-25℃ / Z+20℃	2	2	2	2	2	2	Z-40℃ / Z+20℃	10	8	8	6	5	3
U _R (V)	6.3	10	16	25	35	50																
Z-25℃ / Z+20℃	2	2	2	2	2	2																
Z-40℃ / Z+20℃	10	8	8	6	5	3																
耐久性 Load life	<p>+105℃加额定电压 1000 小时，恢复 16 小时后： After applying rated voltage for 1000 hours at +105℃ and then resumed 16 hours:</p> <p>电容量变化率 Capacitance change : ±25%初始测量值以内 ±25% of the initial measured value 漏 电 流 Leakage current : ≤初始规定值 ≤the initial specified value 损耗角正切值 Dissipation factor : ≤2 倍初始规定值数 ≤2times of the initial specified value</p>																					
高温贮存 Shelf life	<p>+105℃,1000 小时贮存后, 恢复 16 小时后： After storage for 1000 hours at +105℃ and then resumed for 16 hours</p> <p>电容量变化率 Capacitance change : ±25%初始测量值以内 ±25% of the initial measured value 漏 电 流 Leakage current : ≤2 倍初始规定值 ≤2times of the initial specified value 损耗角正切值 Dissipation factor : ≤2 倍初始规定值数 ≤2times of the initial specified value</p>																					

外形图及尺寸表 Case size table

单位Unit: mm



D	4	5	6.3	8
F	1.5	2.0	2.5	3.5
d	0.45		0.5	

频率修正系数 Frequency coefficient

Freq.(Hz)	120	1K	10K	100K
CAP(μF)				
~180	0.4	0.75	0.90	1
220~560	0.5	0.85	0.94	1

尺寸 DIMENSIONS

CAP (μ F)		WV		6.3V(0J)			10V(1A)			16V(1C)		
		Size	ESR	Ripple	Size	ESR	Ripple	Size	ESR	Ripple		
15	150							4×7	3.3	70		
22	220				4×7	3.3	70	5×7	1.7	120		
33	330	5×7	1.7	120	5×7	1.7	120	6.3×7	0.8	220		
47	470	5×7	1.7	120	5×7	0.8	165	6.3×7	0.8	220		
68	680	6.3×7	0.8	210	6.3×7	0.8	210	6.3×7	0.5	220		
100	101	6.3×7	0.8	220	6.3×7	0.5	220	6.3×7	0.5	235		
								8×7	0.5	345		
150	151	6.3×7	0.5	220	6.3×7	0.5	220	6.3×7	0.5	235		
220	221	8×7	0.5	345	6.3×7	0.5	240	8×7	0.45	360		
					8×7	0.5	345					
330	331	8×7	0.4	360	8×7	0.4	360	8×9	0.38	380		
470	471	8×7	0.4	380	8×9	0.35	380					
560	561	8×9	0.35	380	8×9	0.30	380					

CAP (μ F)		WV		25V(1E)			35V(1V)			50V(1H)		
		Size	ESR	Ripple	Size	ESR	Ripple	Size	ESR	Ripple		
2.2	2R2							5×7	1.0	120		
6.8	6R8				4×7	3.3	70					
10	100	4×7	3.3	70	4×7	1.8	70	5×7	1.0	120		
		5×7	2.8	90	5×7	1.7	120					
15	150	5×7	1.7	120	6.3×7	0.8	220	6.3×7	0.8	220		
22	220	5×7	1.7	120	6.3×7	0.8	220	6.3×7	0.75	220		
33	330	6.3×7	0.8	210	6.3×7	0.5	220	8×7	0.70	320		
47	470	6.3×7	0.5	220	6.3×7	0.48	220	8×7	0.68	345		
68	680	6.3×7	0.5	220	8×7	0.45	310	8×7	0.65	345		
100	101	8×7	0.45	345	8×7	0.40	345					
150	151	8×7	0.38	360								
220	221	8×9	0.40	380								

Size ϕ D×L(mm)

Maximum Allowable Ripple Current (mA rms) at 105°C 100KHz

Maximum ESR (Ω) at 20°C 100KHz