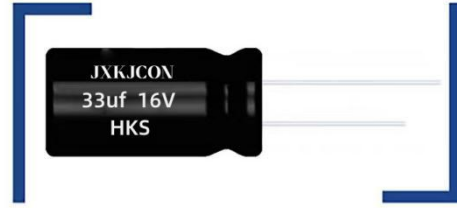


# HKS 系列 Series

## 特点 Features

- 7mm高度, 105°C. 7mmL, 105°C.
- 适用于汽车电子等线路中。  
Used in car electronic circuits, etc.
- RoHS指令已对应完毕。Adapted to the RoHS directive.



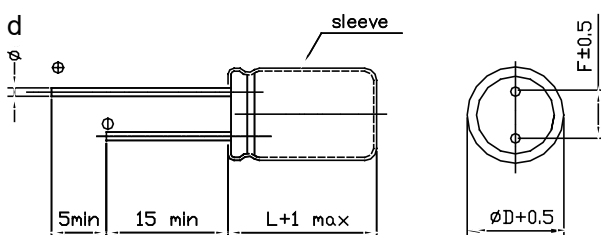
## 主要技术性能 Specifications

项目 Item	特性 Performance Characteristics																								
使用温度范围 Operating Temperature Range	-40~+105°C																								
额定电压范围 Rated Voltage Range	6.3~63V																								
标称电容容量范围 Nominal Capacitance Range	0.1~470μF																								
标称电容容量允许偏差 Capacitance Tolerance	±20% (120Hz, +20°C)																								
漏电流 Leakage Current	$I \leq 0.01 CV$ or $3(\mu A)$ 2分钟(at 20°C, after 2 minutes) 取较大者(whichever is greater)																								
损耗角正切值 (tgδ) Dissipation Factor (+20°C, 120Hz)	<table border="1"> <thead> <tr> <th><math>U_r</math> (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> </tr> </thead> <tbody> <tr> <td>tgδ</td> <td>0.22</td> <td>0.20</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	63	tgδ	0.22	0.20	0.16	0.14	0.12	0.10	0.10								
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温度特性 Temperature Characteristics (Impedance ratio at 120Hz)	<table border="1"> <thead> <tr> <th><math>U_r</math> (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> </tr> </thead> <tbody> <tr> <td>Z-25°C / +20°C</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-40°C / +20°C</td> <td>8</td> <td>6</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	$U_r$ (V)	6.3	10	16	25	35	50	63	Z-25°C / +20°C	4	3	2	2	2	2	2	Z-40°C / +20°C	8	6	4	4	3	3	3
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Z-40°C / +20°C	8	6	4	4	3	3	3																		
耐久性 Load Life	+105°C加额定电压1000小时, 恢复16小时后: After applying rated voltage for 1000 hours at +105°C and then resumed for 16 hours: 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 ≤ 2times of the initial specified value																								
高温贮存 Shelf Life	+105°C, 1000小时贮存后, 恢复16小时后: After storage for 1000 hours at +105°C and then resumed for 16 hours: 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 ≤ 2times of the initial specified value																								

## 频率修正系数 Frequency Coefficient

F(Hz) \ CAP(μF)	60	120	1K	≥10K
0.1~68	0.8	1	1.3	1.5
100~470	0.8	1	1.15	1.2

## 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	

尺寸 Dimensions

CAP(μF) \ WV		6.3V(0J)		10V(1A)		16V(1C)		25V(1E)		35V(1V)		50V(1H)		63V(1J)	
		Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.1	0R1											4×7	1.5		
0.22	R22											4×7	2.5		
0.33	R33											4×7	3.5		
0.47	R47											4×7	5.0		
1	010					4×7	6	4×7	7	4×7	6	4×7	10	4×7	12
2.2	2R2					4×7	8	4×7	9	4×7	8	4×7	19	4×7	18
3.3	3R3					4×7	10	4×7	11	4×7	10	4×7	24	5×7	25
4.7	4R7					4×7	12	4×7	15	4×7	22	4×7	27	5×7	28
10	100					4×7	24	4×7	28	4×7	29	5×7	40	6.3×7	40
22	220	4×7	31	4×7	33	4×7	37	5×7	45	5×7	50	6.3×7	60	8×7	65
						5×7	42	6.3×7	48	6.3×7	58	8×7	65		
33	330	4×7	37	4×7	41	5×7	48	5×7	52	6.3×7	59	8×7	78		
47	470	4×7	44	4×7	51	5×7	57	6.3×7	60	8×7	80	8×7	80		
100	101	5×7	68	5×7	75	6.3×7	89	8×7	115						
220	221	6.3×7	101	6.3×7	105	8×7	135								
				8×7	145										
330	331	8×7	120	6.3×7	110										
470	471	8×7	125												

Size φD×L(mm)

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz