

HNB 系列 Series

特点 Features

- 双极性，标准品，用于极性翻转或极性变换的电路中。
Bi-polarized Standard series, used in polarity reverse and change circuits.
- RoHS指令已对应完毕。
Adapted to the RoHS directive.



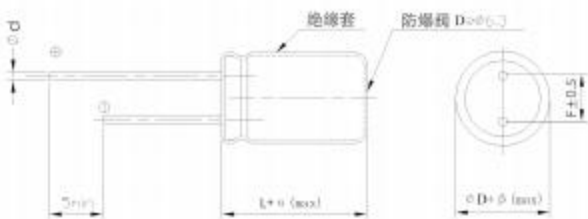
主要技术性能 Specifications

项目 Items	特性 Characteristics																															
使用温度范围 Operating Temperature Range	-40~+85°C	-25~+85°C																														
额定电压范围 Rated Voltage Range	6.3~100V	160V																														
标称电容量范围 Nominal Capacitance Range	0.47~6800μF																															
标称电容量允许偏差 Capacitance Tolerance	±20%(+20°C, 120Hz)																															
漏电流 Leakage Current	I ≤ 0.03CV + 3(μA) 2分钟(at 20°C, after 2 minutes)																															
损耗角正切值 (tgδ) Dissipation Factor (+20°C, 120Hz)	<table border="1"> <thead> <tr> <th>UR (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160</th> </tr> </thead> <tbody> <tr> <td>tgδ</td> <td>0.28</td> <td>0.24</td> <td>0.22</td> <td>0.20</td> <td>0.15</td> <td>0.14</td> <td>0.13</td> <td>0.13</td> <td>0.15</td> </tr> </tbody> </table>		UR (V)	6.3	10	16	25	35	50	63	100	160	tgδ	0.28	0.24	0.22	0.20	0.15	0.14	0.13	0.13	0.15										
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Z-40°C / Z+20°C	10	8	6	5	4	4	3	3																								
耐久性 Load Life	+85°C加额定电压2000小时(每250小时反转极性一次)恢复16小时后: After applying rated voltage for 2000 hours at +85°C (with the polarity inverted every 250 hours) and then resumed 16 hours: 电容量变化率 Capacitance change: ±20%初始测量值以内 ±20% of the initial measured value 漏电流 Leakage current: ≤初始规定值 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	+85°C, 1000小时贮存后, 恢复16小时后: After storage for 1000 hours at +85°C and then resumed 16 hours: 电容量变化率 Capacitance change: ±20%初始测量值以内 ±20% 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)	60	120	1K	≥10k
0.47~68	0.8	1	1.45	1.7
100~470	0.8	1	1.35	1.5
680~6800	0.8	1	1.2	1.3

外形图及尺寸表 Case Size Table



单位 Unit: mm

D	5	6.3	8	10	13	16	18
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
d	0.5	0.5	0.5、0.6	0.6	0.6	0.8	0.8
αMAX	L < 20 > 1.5						
	L ≥ 20 > 2.0						
βMAX	D < 20 > 0.5						
	D ≥ 20 > 1.0						

尺寸 Dimensions

WV		6.3V(0J)		10V(1A)		16V(1C)		25V(1E)		35V(1V)	
		Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
4.7	4R7									5×11	34
10	100					5×11	47	5×11	42	5×11	43
22	220			5×11	57	5×11	57	6.3×11	65	6.3×11	73
								5×11	42		
33	330	5×11	64	5×11	64	5×11	68	6.3×11	80	8×11.5	100
47	470	5×11	76	5×11	76	6.3×11	95	6.3×11	95	8×11.5	120
								5×11	76		
100	101	6.3×11	125	6.3×11	125	8×11.5	160	8×11.5	160	10×16	230
220	221	8×11.5	215	8×11.5	215	10×13	275	10×16	305	13×20	410
330	331	8×11.5	265	10×16	345	10×16	375	13×20	450	13×20	505
470	471	10×13	370	10×16	410	10×20	485	13×20	540	13×25	655
1000	102	10×20	650	13×20	720	16×25	855	16×25	950	16×30	1140
2200	222	13×25	1160	16×25	1280	16×30	1510	18×35	1620	18×40	1650
3300	332	16×25	1570	16×30	1690	18×35	1980				
4700	472	16×30	2020	18×35	2160						
6800	682	18×35	2600								

WV		50V(1H)		63V(1J)		100V(2A)		160V(2C)	
		Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.47	R47	5×11	11			5×11	14		
1	010	5×11	17			5×11	21		
2.2	2R2	5×11	25			6.3×11	34		
						8×11.5	36		
3.3	3R3	5×11	27	5×11	28	6.3×11	39	10×16	49
						8×11.5	45		
4.7	4R7	5×11	34	6.3×11	34	6.3×11	47	10×16	59
						8×11.5	65		
6.8	6R8	5×11	38	6.3×11	42	6.3×11	48		
						8×11.5	75		
10	100	5×11	40	6.3×11	57	8×11.5	71	13×20	109
		6.3×11	52						
22	220	8×11.5	89	8×11.5	95	10×16	135	13×25	177
33	330	6.3×11	54	10×13	135	13×20	220	16×25	240
		8×11.5	105						
47	470	8×11.5	110	10×16	180	13×20	240	16×35	329
		10×13	150						
100	101	10×20	265	13×20	320	16×25	425	18×35	425
220	221	13×25	480	16×25	575	18×35	720		
330	331	16×25	650	16×30	655				
470	471	16×30	835	18×35	965				

Size φD×L(mm)

Maximum Allowable Ripple Current (mA rms) at 85°C 120Hz