



# SPECIFICATION FOR APPROVAL

## INDEX

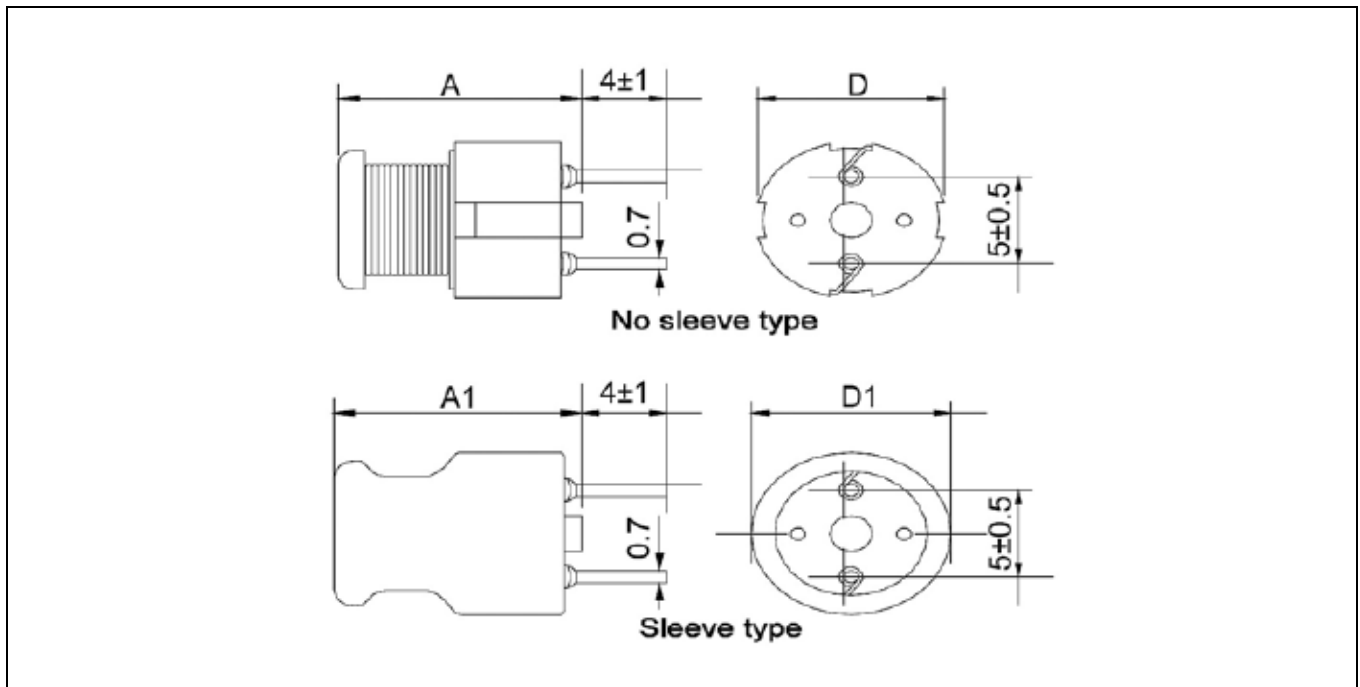
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## PRODUCT DETAIL

Electrical Characteristics		Test Instruments	
L	See P4~6	<b>TEST FREQ:</b> See P4~6  <b>Ope.Temp.:</b> -20°C~80°C	<ul style="list-style-type: none"> <li>•HP4285A WITH HP42851A Q ADAPTER</li> <li>•CHENHWA 100 LCR METER</li> <li>•CHENHWA 502BC OHM METER</li> <li>•HM9461 L-SRF METER</li> <li>•HP 4284A WITH HP42841A CURRENT SOURCE</li> <li>•HC-D3M TEMP.&amp;HUMIDITY CHAMBER</li> </ul>
DCR	See P4~6		
R.Current	See P4~6		
Q	See P4~6		
SRF	See P4~6		

## SHAPES AND DIMENSIONS :



P/N	No sleeve type		UL Tube type	
	A(max)	D(max)	A1(max)	D1(max)
DPKB0804	8.5	9.5	10.0	11.0
DPKB0865	11.0	9.5	12.5	11.0
DPKB0809	13.5	9.5	15.0	11.0



## PART NUMBER CODE

DPK   B   0810 - 121   M   A - UL  
1   2   3   4   5   6   7

1. Series Name
2. Base : K8IN
3. Size Code
4. Inductance : Unit : uH
5. Inductance tolerance : "J±5%" "K±10%" "M±20%"
6. Soldering : A=Lead Free
7. Black UL 125°C Tube



**PACKAGING QUANTITY:**

Packaging Quantity				
PART SIZE		DPKB0804	DPKB0865	DPKB0809
Package	Qty.(in bag)	200	100	100
	Qty.(case)	X	X	X



## RADIAL LEADED FIXED INDUCTORS

### DPKB0804 TYPE

Part No.	L @1kHz uH	Q Min.	Q Test Freq. (MHz)	DCR (Ω) Max.	Rated DC Current (mA)Max.	SRF (MHz) Min.
DPKB0804-101KA	100	60	0.796	3.0	200	5.5
DPKB0804-121KA	120	60	0.796	3.0	200	5.5
DPKB0804-151KA	150	60	0.796	3.0	200	5.0
DPKB0804-181KA	180	60	0.796	3.0	200	4.7
DPKB0804-221K-A	220	60	0.796	3.0	150	4.5
DPKB0804-271KA	270	60	0.796	3.0	150	4.1
DPKB0804-331KA	330	60	0.796	4.0	150	3.8
DPKB0804-391KA	390	60	0.796	4.0	100	3.5
DPKB0804-471KA	470	60	0.796	5.0	100	3.2
DPKB0804-561KA	560	60	0.796	6.0	100	2.9
DPKB0804-681KA	680	60	0.796	6.0	100	2.7
DPKB0804-821KA	820	60	0.796	7.0	50	2.3
DPKB0804-102KA	1000	80	0.252	9.0	50	2.1
DPKB0804-122KA	1200	80	0.252	9.0	50	1.9
DPKB0804-152KA	1500	80	0.252	11.0	50	1.8
DPKB0804-182KA	1800	80	0.252	12.0	50	1.6
DPKB0804-222KA	2200	80	0.252	14.0	50	1.5
DPKB0804-272KA	2700	80	0.252	15.0	50	1.4
DPKB0804-332KA	3300	80	0.252	25.0	40	0.9
DPKB0804-392KA	3900	80	0.252	30.0	40	0.9
DPKB0804-472KA	4700	80	0.252	32.0	40	0.8
DPKB0804-562KA	5600	80	0.252	36.0	30	0.7
DPKB0804-682KA	6800	80	0.252	40.0	30	0.7
DPKB0804-822KA	8200	80	0.252	45.0	30	0.6
DPKB0804-103KA	10000	60	0.0796	55.0	20	0.6
DPKB0804-123KA	12000	60	0.0796	65.0	20	0.5
DPKB0804-153KA	15000	60	0.0796	80.0	20	0.5



## RADIAL LEADED FIXED INDUCTORS

### DPKB0865 TYPE

Part No.	L @1kHz uH	Q Min.	L&Q Test Freq. (MHz)	DCR (Ω) Max.	Rated DC Current (mA)Max.
DPKB0865-1R0MA	1.0	20	7.96	0.021	8.60
DPKB0865-1R5MA	1.5	20	7.96	0.023	7.60
DPKB0865-2R2MA	2.2	20	7.96	0.026	6.30
DPKB0865-3R3MA	3.3	20	7.96	0.030	5.40
DPKB0865-4R7MA	4.7	20	7.96	0.034	4.60
DPKB0865-6R8MA	6.8	20	7.96	0.037	4.10
DPKB0865-100KA	10	50	2.52	0.044	3.40
DPKB0865-120KA	12	50	2.52	0.049	3.10
DPKB0865-150KA	15	50	2.52	0.054	2.90
DPKB0865-180KA	18	40	2.52	0.058	2.66
DPKB0865-220KA	22	40	2.52	0.065	2.40
DPKB0865-270KA	27	40	2.52	0.072	2.22
DPKB0865-330KA	33	30	2.52	0.080	2.05
DPKB0865-390KA	39	30	2.52	0.091	1.85
DPKB0865-470KA	47	30	2.52	0.101	1.77
DPKB0865-560KA	56	30	2.52	0.145	1.48
DPKB0865-680KA	68	30	2.52	0.161	1.36
DPKB0865-820KA	82	30	2.52	0.174	1.30
DPKB0865-101KA	100	20	0.796	0.221	1.13
DPKB0865-121KA	120	20	0.796	0.254	1.02
DPKB0865-151KA	150	20	0.796	0.36	0.92
DPKB0865-181KA	180	20	0.796	0.451	0.80
DPKB0865-221KA	220	20	0.796	0.509	0.73
DPKB0865-271KA	270	20	0.796	0.579	0.67
DPKB0865-331KA	330	20	0.796	0.657	0.62
DPKB0865-391KA	390	20	0.796	0.742	0.57
DPKB0865-471KA	470	20	0.796	0.836	0.52



## RADIAL LEADED FIXED INDUCTORS

### DPKB0809 TYPE

Part No.	L @1kHz uH	Q Min.	Q Test Freq. (MHz)	DCR (Ω) Max.	Rated DC Current (mA)Max.	SRF (MHz) Min.
DPKB0809-101KA	100	80	0.796	0.52	800	4.5
DPKB0809-121KA	120	80	0.796	0.52	740	4.2
DPKB0809-151KA	150	80	0.796	0.62	660	3.8
DPKB0809-181KA	180	80	0.796	0.82	600	3.3
DPKB0809-221KA	220	80	0.796	1.0	550	2.9
DPKB0809-271KA	270	80	0.796	1.2	490	2.6
DPKB0809-331KA	330	80	0.796	1.5	440	2.3
DPKB0809-391KA	390	80	0.796	1.8	390	2.0
DPKB0809-471KA	470	80	0.796	2.0	350	1.80
DPKB0809-561KA	560	80	0.796	3.0	320	1.7
DPKB0809-681KA	680	80	0.796	3.0	290	1.60
DPKB0809-821KA	820	80	0.796	3.3	260	1.40
DPKB0809-102KA	1000	90	0.252	3.3	220	1.30
DPKB0809-122KA	1200	90	0.252	3.6	200	1.2
DPKB0809-152KA	1500	90	0.252	3.9	180	1.1
DPKB0809-182KA	1800	90	0.252	5.6	160	1
DPKB0809-222KA	2200	90	0.252	6.2	140	0.9
DPKB0809-272KA	2700	90	0.252	7.5	120	0.8
DPKB0809-332KA	3300	90	0.252	8.2	110	0.7
DPKB0809-392KA	3900	90	0.252	9.1	100	0.7
DPKB0809-472KA	4700	90	0.252	11.0	100	0.6
DPKB0809-562KA	5600	90	0.252	15.0	90	0.6
DPKB0809-682KA	6800	90	0.252	20.0	80	0.5
DPKB0809-822KA	8200	70	0.252	22.0	70	0.5
DPKB0809-103KA	10000	100	0.0796	25.0	65	0.4
DPKB0809-123KA	12000	100	0.0796	27.0	60	0.4
DPKB0809-153KA	15000	100	0.0796	33.0	56	0.3
DPKB0809-183KA	18000	100	0.0796	36.0	52	0.3
DPKB0809-223KA	22000	100	0.0796	42.0	48	0.3
DPKB0809-273KA	27000	100	0.0796	59.0	45	0.3
DPKB0809-333KA	33000	100	0.0796	65.0	42	0.2
DPKB0809-363KA	36000	100	0.0796	70.0	40	0.2



## RELIABILITY AND TEST CONDITION

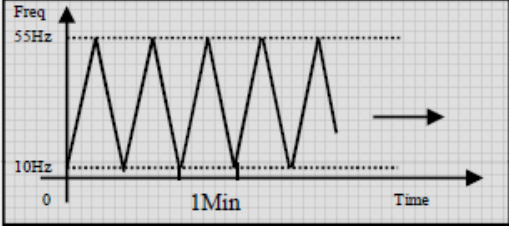
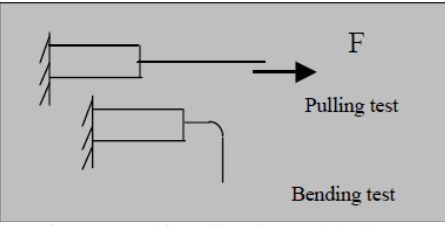
### Environmental tests conditions (DIP wire wound Inductor)

Item (項目)	Required Characteristics (要求)	Test Method/Condition (測試方法)
<p>High temperature Storage test</p> <p>Reference documents: MIL-STD-202G Method 108A</p> <p>高溫儲存試驗</p>	<p>1.No case deformation or change in appearance. 2.<math>\Delta L/L \leq 10\%</math> 3.<math>\Delta DCR/DCR \leq 10\%</math></p> <p>N : The High temperature, depend on the spec. N : 高溫設定，依據產品規格設定</p> <p>1.無明顯的外觀缺陷 2.感值變化不超過 10% 3.直流電阻變化不超過 10%</p>	<p>Temperature: <math>N \pm 2^\circ\text{C}</math> Time : <math>96 \pm 2</math> hours Tested not less than 1 hour, nor more than 2 hours at room temperature.</p> <p>溫度: <math>N \pm 2^\circ\text{C}</math>, 時間: <math>96 \pm 2</math>, 小時 樣品在室溫下放置 1 小時, 不超過 2 小時必須測試。</p>
<p>Low temperature Storage test</p> <p>Reference documents: IEC 68-2-1A 6.1 6.2</p> <p>低溫儲存試驗</p>	<p>1.No case deformation or change in appearance. 2.<math>\Delta L/L \leq 10\%</math> 3.<math>\Delta DCR/DCR \leq 10\%</math></p> <p>M : The Low temperature, depend on the spec. M : 低溫設定，依據產品規格設定</p> <p>1.無明顯的外觀缺陷 2.感值變化不超過 10% 3.直流電阻變化不超過 10%</p>	<p>Temperature: <math>M \pm 2^\circ\text{C}</math> Time : <math>96 \pm 2</math> hours Tested not less than 1 hour, nor more than 2 hours at room temperature.</p> <p>溫度: <math>M \pm 2^\circ\text{C}</math>, 時間: <math>96 \pm 2</math>, 小時 樣品在室溫下放置 1 小時, 不超過 2 小時必須測試。</p>
<p>Humidity test</p> <p>Reference documents: MIL-STD-202G Method 103B</p> <p>濕度測試</p>	<p>1.No case deformation or change in appearance. 2.<math>\Delta L/L \leq 10\%</math> 3.<math>\Delta DCR/DCR \leq 10\%</math></p> <p>1.無明顯的外觀缺陷 2.感值變化不超過 10% 3.直流電阻變化不超過 10%</p>	<p>Temperature: <math>40 \pm 2^\circ\text{C}</math> , Humidity: <math>93 \pm 3\% \text{RH}</math> Time : <math>96 \pm 2</math> hours Tested not less than 1 hour, nor more than 2 hours at room temperature.</p> <p>溫度: <math>40 \pm 2^\circ\text{C}</math> , 濕度: <math>93 \pm 3\% \text{RH}</math> 時間 : <math>96 \pm 2</math> hours 樣品在室溫下放置 1 小時, 不超過 2 小時必須測試。</p>
<p>Thermal shock test</p> <p>Reference documents: MIL-STD-202G Method 107G</p> <p>熱衝擊測試</p>	<p>1.No case deformation or change in appearance. 2.<math>\Delta L/L \leq 10\%</math> 3.<math>\Delta DCR/DCR \leq 10\%</math></p> <p>N : The High temperature, depend on the spec. M : The Low temperature, depend on the spec. For T: weight <math>\leq 28\text{g}</math> : 15Min; <math>28\text{g} \leq \text{weight} \leq 136\text{g}</math> : 30Min</p> <p>1.無明顯的外觀缺陷 2.感值變化小於 10% 3.直流電阻變化小於 10%</p>	<p>First <math>M^\circ\text{C}</math> for T time, next <math>N^\circ\text{C}</math> for T time as 1 cycle. Go through 20 cycles.</p> <p>從 <math>M^\circ\text{C}</math> 作用 T 分鐘, 然後溫度衝擊到 <math>N^\circ\text{C}</math> 作用 T 分鐘, 作為一個循環, 共作用 20 次。</p>





Physical characteristic tests conditions (DIP wire wound Inductor)

Item (項目)	Required Characteristics (要求)	Test Method/Condition (測試方法)
Solderability test Reference documents: MIL-STD-202G Method 208H IPC J-STD-002B 可焊性測試	Terminals area must have 95% min. Solder coverage 端子必須有 95%以上著錫	<ul style="list-style-type: none"> <li>● Dip pads in flux then dip in solder pot at 245±5°C for 5 second.</li> <li>● Solder: lead free</li> <li>● Flux: rosin flux</li> <li>● 端子侵入著焊劑，然後侵入 245±5°C 錫爐中 5 秒</li> <li>● 焊料：無鉛焊料</li> <li>● 助焊劑：松香助焊劑</li> </ul>
Heat endurance of flow soldering Reference documents: MIL-STD-202G Method 210F 波峰焊耐熱試驗	<ul style="list-style-type: none"> <li>● No case deformation or change in appearance.</li> <li>● <math>\Delta L/L \leq 10\%</math></li> <li>● <math>\Delta DCR/DCR \leq 10\%</math></li> <li>● 無明顯的外觀缺陷</li> <li>● 感值變化不超過 10%</li> <li>● 直流電阻變化不超過 10%</li> </ul>	<ul style="list-style-type: none"> <li>● Dip pads in flux then dip in solder pot at 260±5°C for 10 second.</li> <li>● Solder: lead free</li> <li>● Flux: rosin flux</li> <li>● 端子侵入著焊劑，然後侵入 260±5°C 錫爐中 10 秒</li> <li>● 焊料：無鉛焊料</li> <li>● 助焊劑：松香助焊劑</li> </ul>
Vibration test Reference documents: MIL-STD-202G Method 201A 振動測試	<ul style="list-style-type: none"> <li>● No case deformation or change in appearance.</li> <li>● <math>\Delta L/L \leq 10\%</math></li> <li>● <math>\Delta DCR/DCR \leq 10\%</math></li> <li>● 無明顯的外觀缺陷</li> <li>● 感值變化不超過 10%</li> <li>● 直流電阻變化不超過 10%</li> </ul>	Apply frequency 10~55Hz. 1.5mm amplitude in each of perpendicular direction for 2 hours.(total 6 hours)  用 10~55Hz 振動頻率 1.5mm 振幅沿 X,Y,Z 方向各振動 2 小時.(共 6 小時)
Drop test Reference documents: MIL-STD-202G Method 203C 落下試驗	<ul style="list-style-type: none"> <li>● No case deformation or change in appearance.</li> <li>● <math>\Delta L/L \leq 10\%</math></li> <li>● <math>\Delta DCR/DCR \leq 10\%</math></li> <li>● 無明顯的外觀缺陷</li> <li>● 感值變化不超過 10%</li> <li>● 直流電阻變化不超過 10%</li> </ul>	Packaged & Drop down from 1m with 981m/s <sup>2</sup> (100G) attitude In 1 angle 1 ridges & 2 surfaces orientations. 將產品包裝後從 1 米高度自然落下至試驗板上 1 角 1 稜 2 面
Terminal strength Reference documents: IEC 68-2-21:1992 Test A & C 端子強度試驗	1.Terminal should not come out 2.Meet require test condition A&C For: Wire-leaded components-Test A&C For: Others leaded components-Test A 1.端子不會松脫 2.滿足要求的測試條件 A&C	A Pull Force:0.45kg;the force shall be applied gradually to the terminal and then maintained for 10 seconds. C. Wire-lead bend:0.23kg,The rate of bending shall be approximately 3 seconds per bend in each direction. The load shall be suspended at a point within 1/4 inch from the free end of the terminal.  A.拉力:0.45 公斤力,拉力逐漸到最大值維持 10 秒。 C.線腳彎曲:0.23 公斤力,每個方向彎曲 3 次.負載應該加在離端子末端 1/4 英寸處
Resistance to solvent test Reference documents: IEC 68-2-45:1993 耐溶劑性試驗	No case deformation or change in appearance, or obliteration of marking 無外觀破壞及標記破損	To dip parts into IPA solvent for 5±0.5Min, then drying them at room temp for 5Min,at last ,to brushing making 10 times. 在 IPA 溶劑中浸泡 5±0.5 分鐘,室溫下乾燥 5 分鐘,然後擦拭 10 次。



Electrical Characteristic test (DIP wire wound Inductor)

Item (項目)	Required Characteristics(要求)	Test Method / Condition (測試方法)
Electronic characteristic test of major products 主要產品電特性測試	Refer to catalogue of specific products 參照具體產品目錄頁	Refer to catalogue of specific products 參照具體產品目錄頁書
Overload test Reference documents: JIS C5311-6.13 過負荷試驗	1. During the test no smoke, no peculiar, smell, no fire 2. The characteristic is normal after test  1. 試驗過程中無冒煙,異味,著火等, 2. 試驗後產品特性正常	Apply twice as rated current for 5 minutes.  通兩倍額定電流 5 分鐘
Voltage resistance test Reference documents: MIL-STD-202G method 301 絕緣耐壓測試	1. During the test no breakdown 2. The characteristic is normal after test  1. 試驗過程中無擊穿, 2. 試驗後產品特性正常	Refer to product's specification  參照產品的具體規格