

# 承认书

## Specification

客户名称:

Customer Name: \_\_\_\_\_

(请填写贵司全名)

规格书编号:

Spicification NO : \_\_\_\_\_ Spec-CDRH Series Rev.01

客户品名:

Product P/N : \_\_\_\_\_

(请填写贵司物料品名)

华拓品名:

Manufacturer's P/N : \_\_\_\_\_

(请填写欲承认的华拓品名)

变更履历:

Revised record:

Rev.	Date	Changed Contents	Change reasons	Approved by
01	2013-12-10	New released		Buck

客户承认栏 (请签名并写明日期后回传)

广州华拓电子科技有限公司

Customer's Approval

Confirmed	Checked	Prepared
Buck	Dana	Amy

Type Name: CDRH Series

Construction/磁气构造图

Fig.1

Fig.2



Dimensions/外形尺寸图(Unit:mm)

Land patterns/贴装尺寸

Fig.1(CDRH73, CDRH74)

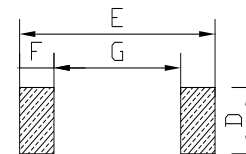
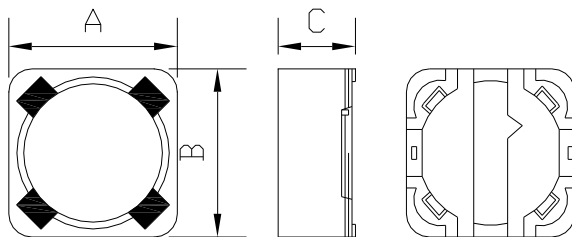
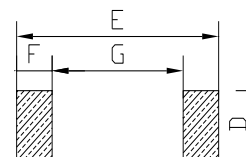
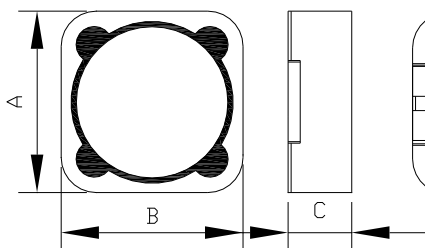


Fig.2(CDRH104, CDRH124, CDRH125, CDRH127, CDRH129)



Shape and Size:(Dimensions are in mm)

Type Name/型名	Shape	A	B	C	D	E	F	G	QTY(MPQ) pcs/reel 最小包装数(个/盘)
CDRH73	Fig.2	7.3±0.2	7.3±0.2	3.5MAX	2.2REF	8.0REF	1.6REF	4.8REF	1000
CDRH74	Fig.2	7.3±0.2	7.3±0.2	4.5MAX	2.2REF	8.0REF	1.6REF	4.8REF	1000
CDRH104	Fig.3	10.5MAX	10.5MAX	4.8MAX	4.0REF	10.6REF	2.3REF	6.0REF	1000
CDRH124	Fig.3	12.5MAX	12.5MAX	4.5MAX	5.4REF	12.6REF	2.8REF	7.0REF	500
CDRH125	Fig.3	12.5MAX	12.5MAX	6.0MAX	5.4REF	12.8REF	2.9REF	7.0REF	500
CDRH127	Fig.3	12.5MAX	12.5MAX	8.0MAX	5.4REF	12.8REF	2.9REF	7.0REF	500
CDRH129	Fig.3	12.5MAX	12.5MAX	10.0MAX	5.4REF	12.8REF	2.9REF	7.0REF	350

**Product Identification/品名注释**

**C D R H 127 - 100 M C**  
(1) (2) (3) (4) (5) (6) (7) (8)

- |  |  |
|--|--|
| (1) SMD/表面安装制品                                     | (6) Inductance value/电感值:                    |
| (2) Dure Core Used /使用工字型磁芯                        | 4R7= 4.7uH,100=10uH,101=100uH                |
| (3) Ring Core Used /使用环形磁芯                         | (7) Tolerance/公差: M=±20% ,N=±30%             |
| (4) HOOP Used/使用金属薄片基座                             | (8) Packing Style/包装形态:C=Carrier taping/载带包装 |
| (5) Dimension symbol/尺寸表示:<br>127=12 X7 mm (W X H) |  |

**Specifications/规格**

**Type Name: CDRH73**

Part No./品名	Inductance/电感值(μH)	Test Condition/ 测试条件	D.C.R./直流阻抗 (Ω)MAX.	Saturation Current/ 饱和电流(A) ※
CDRH73-100MC	10±20%	1KHz,1V	0.072	1.68
CDRH73-120MC	12±20%	1KHz,1V	0.098	1.52
CDRH73-150MC	15±20%	1KHz,1V	0.13	1.33
CDRH73-180MC	18±20%	1KHz,1V	0.14	1.20
CDRH73-220MC	22±20%	1KHz,1V	0.19	1.07
CDRH73-270MC	27±20%	1KHz,1V	0.21	0.96
CDRH73-330MC	33±20%	1KHz,1V	0.24	0.91
CDRH73-390MC	39±20%	1KHz,1V	0.32	0.77
CDRH73-470MC	47±20%	1KHz,1V	0.36	0.76
CDRH73-560MC	56±20%	1KHz,1V	0.47	0.68
CDRH73-680MC	68±20%	1KHz,1V	0.52	0.61
CDRH73-820MC	82±20%	1KHz,1V	0.69	0.57
CDRH73-101MC	100±20%	1KHz,1V	0.79	0.50
CDRH73-121MC	120±20%	1KHz,1V	0.89	0.49
CDRH73-151MC	150±20%	1KHz,1V	1.27	0.43
CDRH73-181MC	180±20%	1KHz,1V	1.45	0.39
CDRH73-221MC	220±20%	1KHz,1V	1.65	0.35
CDRH73-271MC	270±20%	1KHz,1V	2.31	0.32
CDRH73-331MC	330±20%	1KHz,1V	2.62	0.28
CDRH73-391MC	390±20%	1KHz,1V	2.94	0.26
CDRH73-471MC	470±20%	1KHz,1V	4.18	0.24
CDRH73-561MC	560±20%	1KHz,1V	4.67	0.22
CDRH73-681MC	680±20%	1KHz,1V	5.73	0.19
CDRH73-821MC	820±20%	1KHz,1V	6.54	0.18
CDRH73-102MC	1000±20%	1KHz,1V	9.44	0.16

※ The saturation current when the inductance decreases to 65% of initial value. (Ta=25℃)

**Type Name: CDRH74**

Part No./品名	Inductance/电感值(μH)	Test Condition/ 测试条件	D.C.R./直流阻抗 (mΩ)MAX.	Saturation Current/ 饱和电流(A) ※
CDRH74-1R0NC	1.0±30%	100KHz,0.3V	11.1	6.80

CDRH74-2R2NC	2.2±30%	100KHz,0.3V	18	5.00
CDRH74-3R3NC	3.3±30%	100KHz,0.3V	22	4.00
CDRH74-4R7NC	4.7±30%	100KHz,0.3V	31	3.40
CDRH74-5R6NC	5.6±30%	100KHz,0.3V	33	2.70
CDRH74-6R8NC	6.8±30%	100KHz,0.3V	35	2.30
CDRH74-8R2NC	8.2±30%	100KHz,0.3V	45	2.10
CDRH74-100MC	10±20%	100KHz,0.3V	49	1.84
CDRH74-120MC	12±20%	100KHz,0.3V	58	1.71
CDRH74-150MC	15±20%	100KHz,0.3V	81	1.47
CDRH74-180MC	18±20%	100KHz,0.3V	91	1.31
CDRH74-220MC	22±20%	100KHz,0.3V	110	1.23
CDRH74-270MC	27±20%	100KHz,0.3V	150	1.12
CDRH74-330MC	33±20%	100KHz,0.3V	170	0.96
CDRH74-390MC	39±20%	100KHz,0.3V	230	0.91
CDRH74-470MC	47±20%	100KHz,0.3V	260	0.88
CDRH74-560MC	56±20%	100KHz,0.3V	350	0.75
CDRH74-680MC	68±20%	100KHz,0.3V	380	0.69
CDRH74-820MC	82±20%	100KHz,0.3V	430	0.61
CDRH74-101MC	100±20%	100KHz,0.3V	610	0.60
CDRH74-121MC	120±20%	100KHz,0.3V	660	0.52
CDRH74-151MC	150±20%	100KHz,0.3V	880	0.46
CDRH74-181MC	180±20%	100KHz,0.3V	980	0.42
CDRH74-221MC	220±20%	100KHz,0.3V	1170	0.36
CDRH74-271MC	270±20%	100KHz,0.3V	1640	0.34
CDRH74-331MC	330±20%	100KHz,0.3V	1860	0.32
CDRH74-391MC	390±20%	100KHz,0.3V	2850	0.29
CDRH74-471MC	470±20%	100KHz,0.3V	3000	0.26
CDRH74-561MC	560±20%	100KHz,0.3V	3600	0.23
CDRH74-681MC	680±20%	100KHz,0.3V	4600	0.22
CDRH74-821MC	820±20%	100KHz,0.3V	5200	0.20
CDRH74-102MC	1000±20%	100KHz,0.3V	6000	0.18

※ The saturation current when the inductance decreases to 65% of initial value. (Ta=25℃)

**Type Name: CDRH104**

Part No./品名	Inductance/电感值(μH)	Test Condition/ 测试条件	D.C.R./直流阻抗 (mΩ)MAX.	Saturation Current/ 饱和电流(A) ※
CDRH104-4R7MC	4.7±20%	100KHz,1V	35	3.20
CDRH104-6R8MC	6.8±20%	100KHz,1V	44	2.80
CDRH104-100MC	10±20%	1KHz,1V	50	2.40
CDRH104-120MC	12±20%	1KHz,1V	54	2.25
CDRH104-150MC	15±20%	1KHz,1V	61	2.00
CDRH104-180MC	18±20%	1KHz,1V	84	1.80
CDRH104-220MC	22±20%	1KHz,1V	94	1.65
CDRH104-270MC	27±20%	1KHz,1V	110	1.45
CDRH104-330MC	33±20%	1KHz,1V	150	1.35
CDRH104-390MC	39±20%	1KHz,1V	170	1.20
CDRH104-470MC	47±20%	1KHz,1V	210	1.10
CDRH104-560MC	56±20%	1KHz,1V	230	1.00

CDRH104-680MC	68±20%	1KHz,1V	260	0.93
CDRH104-820MC	82±20%	1KHz,1V	360	0.84
CDRH104-101MC	100±20%	1KHz,1V	410	0.76
CDRH104-121MC	120±20%	1KHz,1V	450	0.70
CDRH104-151MC	150±20%	1KHz,1V	640	0.63
CDRH104-181MC	180±20%	1KHz,1V	840	0.57
CDRH104-221MC	220±20%	1KHz,1V	960	0.52
CDRH104-271MC	270±20%	1KHz,1V	1070	0.47
CDRH104-331MC	330±20%	1KHz,1V	1370	0.43
CDRH104-391MC	390±20%	1KHz,1V	1550	0.39
CDRH104-471MC	470±20%	1KHz,1V	1740	0.36

※ The saturation current when the inductance decreases to 75% of initial value. (Ta=25°C)

**Type Name: CDRH124**

Part No./品名	Inductance/电感值(μH)	Test Condition/ 测试条件	D.C.R./直流阻抗 (mΩ)MAX.	Saturation Current/ 饱和电流(A) ※
CDRH124-3R9MC	3.9±20%	100KHz,1V	15	6.50
CDRH124-4R7MC	4.7±20%	100KHz,1V	18	5.70
CDRH124-6R8MC	6.8±20%	100KHz,1V	25	4.90
CDRH124-8R2MC	8.2±20%	100KHz,1V	26	4.60
CDRH124-100MC	10±20%	100KHz,1V	32	4.50
CDRH124-120MC	12±20%	100KHz,1V	38	4.00
CDRH124-150MC	15±20%	100KHz,1V	50	3.20
CDRH124-180MC	18±20%	100KHz,1V	57	3.10
CDRH124-220MC	22±20%	100KHz,1V	66	2.90
CDRH124-270MC	27±20%	100KHz,1V	80	2.80
CDRH124-330MC	33±20%	100KHz,1V	97	2.70
CDRH124-390MC	39±20%	100KHz,1V	132	2.10
CDRH124-470MC	47±20%	100KHz,1V	150	1.90
CDRH124-560MC	56±20%	100KHz,1V	190	1.80
CDRH124-680MC	68±20%	100KHz,1V	220	1.50
CDRH124-820MC	82±20%	100KHz,1V	260	1.30
CDRH124-101MC	100±20%	100KHz,1V	308	1.20
CDRH124-121MC	120±20%	100KHz,1V	380	1.10
CDRH124-151MC	150±20%	100KHz,1V	530	0.95
CDRH124-181MC	180±20%	100KHz,1V	620	0.85
CDRH124-221MC	220±20%	100KHz,1V	700	0.80
CDRH124-271MC	270±20%	100KHz,1V	870	0.60
CDRH124-331MC	330±20%	100KHz,1V	990	0.50

※ The saturation current when the inductance decreases to 75% of initial value. (Ta=25°C)

**Type Name: CDRH125**

Part No./品名	Inductance/电感值(μH)	Test Condition/ 测试条件	D.C.R./直流阻抗 (mΩ)MAX.	Saturation Current/ 饱和电流(A) ※
CDRH125-1R0NC	1.0±30%	100KHz,1V	12	8.00
CDRH125-2R2NC	2.2±30%	100KHz,1V	14	7.00
CDRH125-3R1NC	3.1±30%	100KHz,1V	17	6.00

CDRH125-4R4NC	4.4±30%	100KHz,1V	20	5.00
CDRH125-5R8NC	5.8±30%	100KHz,1V	21	4.40
CDRH125-6R8NC	6.8±30%	100KHz,1V	24	4.20
CDRH125-100MC	10±20%	1KHz,1V	25	4.00
CDRH125-120MC	12±20%	1KHz,1V	27	3.50
CDRH125-150MC	15±20%	1KHz,1V	30	3.30
CDRH125-180MC	18±20%	1KHz,1V	34	3.00
CDRH125-220MC	22±20%	1KHz,1V	36	2.80
CDRH125-270MC	27±20%	1KHz,1V	51	2.30
CDRH125-330MC	33±20%	1KHz,1V	57	2.10
CDRH125-390MC	39±20%	1KHz,1V	68	2.00
CDRH125-470MC	47±20%	1KHz,1V	75	1.80
CDRH125-560MC	56±20%	1KHz,1V	110	1.70
CDRH125-680MC	68±20%	1KHz,1V	120	1.50
CDRH125-820MC	82±20%	1KHz,1V	140	1.40
CDRH125-101MC	100±20%	1KHz,1V	160	1.30
CDRH125-121MC	120±20%	1KHz,1V	193	1.10
CDRH125-151MC	150±20%	1KHz,1V	248	1.00
CDRH125-181MC	180±20%	1KHz,1V	290	0.90
CDRH125-221MC	220±20%	1KHz,1V	400	0.80
CDRH125-271MC	270±20%	1KHz,1V	460	0.75
CDRH125-331MC	330±20%	1KHz,1V	510	0.68
CDRH125-391MC	390±20%	1KHz,1V	690	0.65
CDRH125-471MC	470±20%	1KHz,1V	770	0.58
CDRH125-561MC	560±20%	1KHz,1V	860	0.54
CDRH125-681MC	680±20%	1KHz,1V	1200	0.48
CDRH125-821MC	820±20%	1KHz,1V	1340	0.43
CDRH125-102MC	1000±20%	1KHz,1V	1530	0.40

※ The saturation current when the inductance decreases to 75% of initial value. (Ta=25℃)

**Type Name: CDRH127**

Part No./品名	Inductance/电感值(μH)	Test Condition/ 测试条件	D.C.R./直流阻抗 (mΩ)MAX.	Saturation Current/ 饱和电流(A) ※
CDRH127-1R2NC	1.2±30%	100KHz,1V	7.0	9.80
CDRH127-2R4NC	2.4±30%	100KHz,1V	11.5	8.00
CDRH127-3R5NC	3.5±30%	100KHz,1V	13.5	7.50
CDRH127-4R7NC	4.7±30%	100KHz,1V	15.8	6.80
CDRH127-6R1NC	6.1±30%	100KHz,1V	17.6	6.60
CDRH127-7R6NC	7.6±30%	100KHz,1V	20.0	5.90
CDRH127-100MC	10±20%	1KHz,1V	21.6	5.40
CDRH127-120MC	12±20%	1KHz,1V	24.3	4.90
CDRH127-150MC	15±20%	1KHz,1V	27.0	4.50
CDRH127-180MC	18±20%	1KHz,1V	39.2	3.90
CDRH127-220MC	22±20%	1KHz,1V	43.2	3.60
CDRH127-270MC	27±20%	1KHz,1V	45.9	3.40
CDRH127-330MC	33±20%	1KHz,1V	64.8	3.00
CDRH127-390MC	39±20%	1KHz,1V	72.9	2.75
CDRH127-470MC	47±20%	1KHz,1V	100	2.50

CDRH127-560MC	56±20%	1KHz,1V	110	2.35
CDRH127-680MC	68±20%	1KHz,1V	140	2.10
CDRH127-820MC	82±20%	1KHz,1V	160	1.95
CDRH127-101MC	100±20%	1KHz,1V	220	1.70
CDRH127-121MC	120±20%	1KHz,1V	250	1.60
CDRH127-151MC	150±20%	1KHz,1V	280	1.42
CDRH127-181MC	180±20%	1KHz,1V	350	1.30
CDRH127-221MC	220±20%	1KHz,1V	390	1.16
CDRH127-271MC	270±20%	1KHz,1V	560	1.06
CDRH127-331MC	330±20%	1KHz,1V	640	0.95
CDRH127-391MC	390±20%	1KHz,1V	700	0.88
CDRH127-471MC	470±20%	1KHz,1V	980	0.79
CDRH127-561MC	560±20%	1KHz,1V	1070	0.73
CDRH127-681MC	680±20%	1KHz,1V	1460	0.67
CDRH127-821MC	820±20%	1KHz,1V	1640	0.60
CDRH127-102MC	1000±20%	1KHz,1V	1820	0.55

※ The saturation current when the inductance decreases to 75% of initial value. (Ta=25°C)

**Type Name: CDRH129**

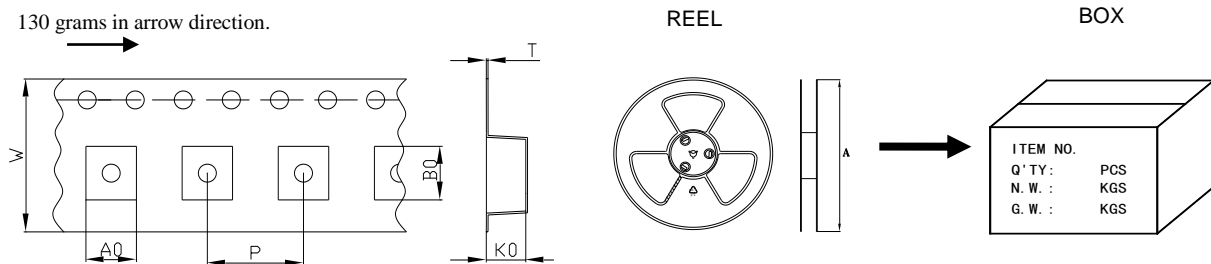
Part No./品名	Inductance/电感值(μH)	Test Condition/ 测试条件	D.C.R./直流阻抗 (mΩ)MAX.	Saturation Current/ 饱和电流(A) ※
CDRH129-1R0NC	1.0±30%	100KHz,0.1V	5.5	19.9
CDRH129-1R8NC	1.8±30%	100KHz,0.1V	6.5	13.4
CDRH129-2R5NC	2.5±30%	100KHz,0.1V	8.0	12.2
CDRH129-3R5NC	3.5±30%	100KHz,0.1V	9.7	12.0
CDRH129-4R7NC	4.7±30%	100KHz,0.1V	11.0	10.1
CDRH129-5R6NC	5.6±30%	100KHz,0.1V	12.4	8.56
CDRH129-7R5NC	7.5±30%	100KHz,0.1V	14.0	8.48
CDRH129-100MC	10±20%	100KHz,0.1V	18.0	7.12
CDRH129-120MC	12±20%	100KHz,0.1V	19.0	7.04
CDRH129-150MC	15±20%	100KHz,0.1V	26.0	5.84
CDRH129-220MC	22±20%	100KHz,0.1V	29	5.12
CDRH129-330MC	33±20%	100KHz,0.1V	53	4.25
CDRH129-470MC	47±20%	100KHz,0.1V	63	3.60
CDRH129-560MC	56±20%	100KHz,0.1V	68	2.85
CDRH129-680MC	68±20%	100KHz,0.1V	93	2.76
CDRH129-820MC	82±20%	100KHz,0.1V	99	2.62
CDRH129-101MC	100±20%	100KHz,0.1V	126	2.31
CDRH129-121MC	120±20%	100KHz,0.1V	154	2.05
CDRH129-151MC	150±20%	100KHz,0.1V	174	1.80
CDRH129-181MC	180±20%	100KHz,0.1V	191	1.66
CDRH129-221MC	220±20%	100KHz,0.1V	246	1.64
CDRH129-331MC	330±20%	100KHz,0.1V	386	1.28
CDRH129-471MC	470±20%	100KHz,0.1V	471	1.06
CDRH129-561MC	560±20%	100KHz,0.1V	650	1.01
CDRH129-681MC	680±20%	100KHz,0.1V	730	0.83
CDRH129-821MC	820±20%	100KHz,0.1V	936	0.81
CDRH129-102MC	1000±20%	100KHz,0.1V	1220	0.70

CDRH129-122MC	1200±20%	100KHz,0.1V	1520	0.64
CDRH129-152MC	1500±20%	100KHz,0.1V	1990	0.56
CDRH129-182MC	1800±20%	100KHz,0.1V	2180	0.48
CDRH129-222MC	2200±20%	100KHz,0.1V	2580	0.43

※ The saturation current when the inductance decreases to 75% of initial value. (Ta=25°C)

**Packing:Dimensions for embossed tape and reel&catron packing with packed Qty/包装载带、胶盘和外箱包装数量**

The force for tearing off cover tape is 10 to 130 grams in arrow direction.

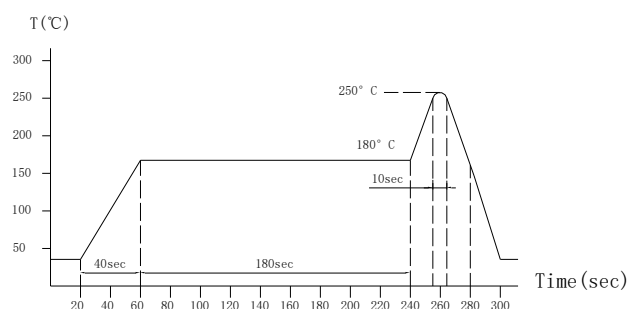


Type	DIMENSIONS (mm) /尺寸							QTY(PCS/REEL)
	A	W	P	A0	B0	K0	T	每卷产品数量
CDRH73	330	16	12	7.60	7.60	3.80	0.35	1000
CDRH74	330	16	12	7.80	7.80	4.60	0.40	1000
CDRH104	330	24	16	10.50	10.70	4.90	0.40	750
CDRH124	330	24	16	12.60	12.60	5.20	0.40	500
CDRH125	330	24	16	12.50	12.50	6.30	0.40	500
CDRH127	330	24	16	12.60	12.60	8.20	0.40	500
CDRH129	330	24	16	12.60	12.60	10.30	0.50	350

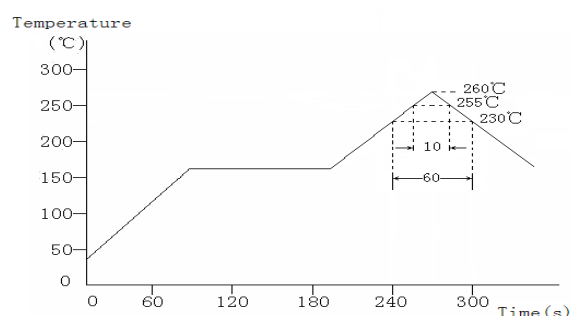


**General Characteristics**

Operation Temperature /使用温度范围	-40~+105°C (Includes temperature when the coil is heated.)/-40~+105°C (包含线圈发热)
External Appearance/外观	On visual inspection, the coil has no external defects./目视检查时,外观没有明显的缺陷.
Terminal Strength/端子强度	After soldering between copper plate and electrode. sample is pushed in three directions of X,Y and Z with force of 5N for 10±5 seconds. the terminal should not peel off. /将线圈的端子焊接在基板上,分别在 X,Y,Z 3 个方向施加 5N,时间 10±5 秒,无电极剥离和断线.
Insulating Resistance /绝缘电阻	Over 100MΩ at 100V D.C. between coil and core./线圈和磁芯间加上 100V 直流电压,绝缘电阻 100MΩ 以上.
Dielectric Strength/耐电压	No dielectric breakdown at 100V D.C. for 1 minute between coil and core. /线圈和磁芯间加上 100V 直流电压 1 分钟时间后,无绝缘破坏不良出现.
Temperature Characteristics /温度特性	Inductance coefficient(0~2,000)×10 <sup>-6</sup> /°C (-25~+85°C)/电感温度系数(0~2,000)×10 <sup>-6</sup> /°C (-25~+85°C)
Humidity Characteristics /耐湿度特性	Inductance deviation within ±10%,after 96 hours in 90~95% relative humidity at 40±2°C and 1 hour drying under normal condition./温度在 40±2°C,相对湿度在 90~95% 条件下存放 96 小时后取出,用干布擦干.然后在常温常湿中放置 1 小时,电感变化率±10% 以内.
Thermal shock test /冷热冲击特性	Inductance deviation within ±10%,after 20 cycles of +105°C for 30 minutes, -40°C for 30 minutes. Characteristics are measured after the ambient air exposure of 1 hour./-40°C 放置 30 分钟后转换为+105°C 放置 30 分钟,20 次循环,然后在常温常湿中放置 1 小时,电感变化率±10% 以内.
High temperature storage test /高温保存测试	Inductance deviation within ±10%,after 96 hours in 105°C±2°C characteristics are measured after ambient are exposure of 1 hour. /+105°C 放置 96 小时,然后在常温常湿中放置 1 小时,电感变化率±10% 以内.
Low temperature storage test /低温保存测试	Inductance deviation within ±10%,after 96 hours in -40°C±2°C characteristics are measured after ambient are exposure of 1 hour. /-40°C 放置 96 小时,然后在常温常湿中放置 1 小时,电感变化率±10% 以内.

**Recommended Reflow Conditions (Lead-free)**
**/推荐回流焊条件(无铅)**


The reflow condition recommended above is according to the machine used by our company. Big differences will arise as a result of the type of machine, reflow conditions, method, etc used. Hence, before setting up your reflow conditions, please confirm with the above./上面推荐的回流焊试验条件是根据本公司的回流焊设备测试结果得到.不同的试验设备、试验条件和试验方法及试验结果不同.因此回流焊试验条件的设定需要仔细地确认.

**Reflow Soldering Heat Endurance**
**/回流焊耐热**


No mechanical and electrical defects are found after testing based on the above profile and keeping under the conditions of room temperature and humidity for 2 hours. /在该条件下进行回流焊,常温常湿条件下放置 2 个小时后,无机械,电气特性缺陷发生.

Twice reflow test is acceptable with the test interval remaining 1 hour under the normal conditions.

/在常温常湿条件下,间隔 1 小时可进行两次回流焊.

The reflow test profile may vary with the testing instruments.

/回流焊曲线图会因设备的不同有所差异.