SPECIFICATION FOR APPROVAL

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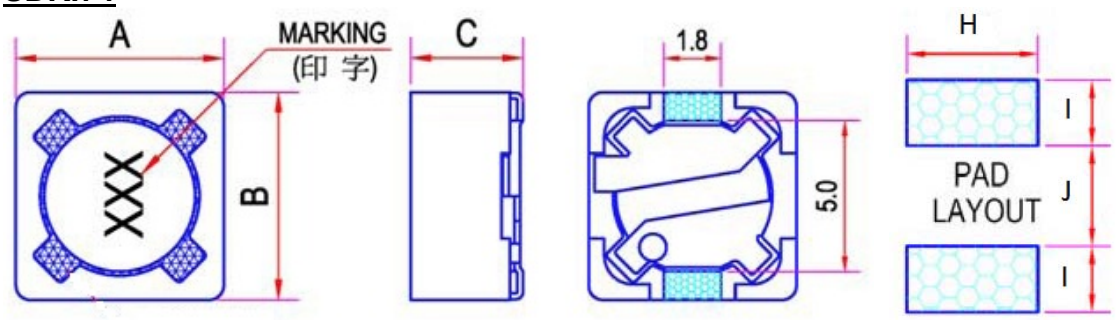
RoHS

PRODUCT DETAIL

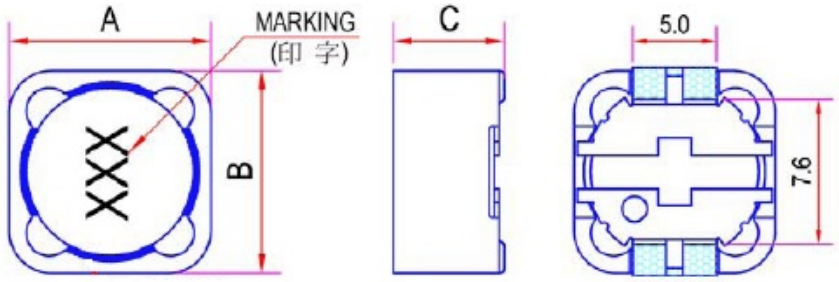
Electrical Characteristics			Test Instruments
L	See P3~7	TEST FREQ: See P3~7 TEST LEVEL: See P3~7 Ope.Temp. -25℃~105℃	•HP4284A LCR meter or equivalent. •Chroma 16502 micro-ohmmeter or equivalent. • Electrical specification at 25 ℃.
DCR	See P3~7		
R.Current	See P3~7		

SHAPES AND DIMENSIONS :

SDRI74



SDRI124 / 125 / 127 / 129



P/N	Item /Spec.(mm)					
	A	B	C	H	I	J
SDRI74	7.3±0.2	7.3±0.2	4.5 max	2.2 typ	1.6 typ	4.8 typ
SDRI124	12.0±0.3	12.0±0.3	4.5 max	5.4 typ	2.9 typ	7.0 typ
SDRI125	12.0±0.3	12.0±0.3	6.0 max	5.4 typ	2.9 typ	7.0 typ
SDRI127	12.0±0.3	12.0±0.3	8.0 max	5.4 typ	2.9 typ	7.0 typ
SDRI129	12.0±0.5	12.0±0.5	10.0 max	5.4 typ	2.9 typ	7.0 typ
Marking : "XXX"						

RoHS

PART NUMBER CODE

SDRI	124	–	151	M	A
1	2		3	4	5

1. Series Name
2. Size Code：the first two digitals : length(mm), the last two digitals : width(mm)
3. Inductance (R=Decimal Point) Unit：μH
4. Inductance tolerance：“N” ± 30% ; “M” ± 20%
5. A=Lead Free

SHIELDED SMT POWER INDUCTORS

SDRI74 TYPE

Part NO.	L (uH)	Tolerance	RDC(Ω) max	IDC(A) min
SDRI74-100MA	10	M	0.049	1.84
SDRI74-120MA	12	M	0.058	1.71
SDRI74-150MA	15	M	0.081	1.47
SDRI74-180MA	18	M	0.091	1.31
SDRI74-220MA	22	M	0.11	1.23
SDRI74-270MA	27	M	0.15	1.12
SDRI74-330MA	33	M	0.17	0.96
SDRI74-390MA	39	M	0.23	0.91
SDRI74-470MA	47	M	0.26	0.88
SDRI74-560MA	56	M	0.35	0.75
SDRI74-680MA	68	M	0.38	0.69
SDRI74-820MA	82	M	0.43	0.61
SDRI74-101MA	100	M	0.61	0.60
SDRI74-121MA	120	M	0.66	0.52
SDRI74-151MA	150	M	0.88	0.46
SDRI74-181MA	180	M	0.98	0.42
SDRI74-221MA	220	M	1.17	0.36
SDRI74-271MA	270	M	1.64	0.34
SDRI74-331MA	330	M	1.86	0.32
SDRI74-391MA	390	M	2.85	0.29
SDRI74-471MA	470	M	3.01	0.26
SDRI74-561MA	560	M	3.62	0.23
SDRI74-681MA	680	M	4.63	0.22
SDRI74-821MA	820	M	5.20	0.20
SDRI74-102MA	1000	M	6.00	0.18

※Tolerance： N±30%　　M±20%

※IDC:ΔL／L（0A）≦25%　or Temperature raise becomes ΔT=40℃ (Ta=20℃), whichever lower.

※Test Frequency： 10uH~1000uH：1KHZ,0.25V

RoHS

SHIELDED SMT POWER INDUCTORS

SDRI124 TYPE

Part NO.	L (uH)	Tolerance	RDC(Ω) max	IDC(A) min
SDRI124-3R9MA	3.9	M	0.015	6.50
SDRI124-4R7MA	4.7	M	0.018	5.70
SDRI124-6R8MA	6.8	M	0.023	4.90
SDRI124-8R2MA	8.2	M	0.026	4.60
SDRI124-100MA	10	M	0.028	4.50
SDRI124-120MA	12	M	0.038	4.00
SDRI124-150MA	15	M	0.050	3.20
SDRI124-180MA	18	M	0.057	3.10
SDRI124-220MA	22	M	0.066	2.90
SDRI124-270MA	27	M	0.080	2.80
SDRI124-330MA	33	M	0.097	2.70
SDRI124-390MA	39	M	0.132	2.10
SDRI124-470MA	47	M	0.150	1.90
SDRI124-560MA	56	M	0.190	1.80
SDRI124-680MA	68	M	0.220	1.50
SDRI124-820MA	82	M	0.260	1.30
SDRI124-101MA	100	M	0.308	1.20
SDRI124-121MA	120	M	0.380	1.10
SDRI124-151MA	150	M	0.530	0.95
SDRI124-181MA	180	M	0.620	0.85
SDRI124-221MA	220	M	0.700	0.80
SDRI124-271MA	270	M	0.876	0.60
SDRI124-331MA	330	M	0.990	0.50

※Tolerance：N±30%　M±20%

※IDC:ΔL／L（0A）≦25%　or Temperature raise becomes ΔT=40℃ (Ta=20℃), whichever lower.

※Test Frequency：3.9uH~330uH：100KHZ,0.25V

RoHS

SHIELDED SMT POWER INDUCTORS

SDRI125 TYPE

Part NO	L (uH)	Tolerance	RDC(Ω) max	IDC(A) min
SDRI125-100MA	10	M	0.025	4.00
SDRI125-120MA	12	M	0.027	3.50
SDRI125-150MA	15	M	0.030	3.30
SDRI125-180MA	18	M	0.034	3.00
SDRI125-220MA	22	M	0.036	2.80
SDRI125-270MA	27	M	0.051	2.30
SDRI125-330MA	33	M	0.057	2.10
SDRI125-390MA	39	M	0.068	2.00
SDRI125-470MA	47	M	0.075	1.80
SDRI125-560MA	56	M	0.110	1.70
SDRI125-680MA	68	M	0.120	1.50
SDRI125-820MA	82	M	0.140	1.40
SDRI125-101MA	100	M	0.160	1.30
SDRI125-121MA	120	M	0.170	1.10
SDRI125-151MA	150	M	0.230	1.00
SDRI125-181MA	180	M	0.290	0.90
SDRI125-221MA	220	M	0.400	0.80
SDRI125-271MA	270	M	0.460	0.75
SDRI125-331MA	330	M	0.510	0.68
SDRI125-391MA	390	M	0.690	0. 65
SDRI125-471MA	470	M	0.770	0.58
SDRI125-561MA	560	M	0.860	0.54
SDRI125-681MA	680	M	1.200	0.48
SDRI125-821MA	820	M	1.340	0.43
SDRI125-102MA	1000	M	1.530	0.40

※Tolerance：N±30%　M±20%

※IDC:ΔL／L（0A）≦25%　or Temperature raise becomes ΔT=40℃ (Ta=20℃), whichever lower.

※Test Frequency：10uH~1000uH：1KHZ,0.25V

RoHS

SHIELDED SMT POWER INDUCTORS

SDRI127 TYPE

Part NO	L (uH)	Tolerance	RDC(Ω) max	IDC(A) min
SDRI127-1R2NA	1.2	N	0.007	9.80
SDRI127-2R4NA	2.4	N	0.0115	8.00
SDRI127-3R5NA	3.5	N	0.0135	7.50
SDRI127-4R7NA	4.7	N	0.0158	6.80
SDRI127-6R1NA	6.1	N	0.0176	6.60
SDRI127-7R6NA	7.6	N	0.020	5.90
SDRI127-100MA	10	M	0.0216	5.40
SDRI127-120MA	12	M	0.0243	4.90
SDRI127-150MA	15	M	0.027	4.50
SDRI127-180MA	18	M	0.0392	3.90
SDRI127-220MA	22	M	0.0432	3.60
SDRI127-270MA	27	M	0.0459	3.40
SDRI127-330MA	33	M	0.0648	3.00
SDRI127-390MA	39	M	0.0729	2.75
SDRI127-470MA	47	M	0.10	2.50
SDRI127-560MA	56	M	0.11	2.35
SDRI127-680MA	68	M	0.14	2.10
SDRI127-820MA	82	M	0.15	1.95
SDRI127-101MA	100	M	0.22	1.70
SDRI127-121MA	120	M	0.23	1.60
SDRI127-151MA	150	M	0.25	1.42
SDRI127-181MA	180	M	0.32	1.30
SDRI127-221MA	220	M	0.36	1.16
SDRI127-271MA	270	M	0.47	1.06
SDRI127-331MA	330	M	0.52	0.95
SDRI127-391MA	390	M	0.70	0.88
SDRI127-471MA	470	M	0.98	0.79
SDRI127-561MA	560	M	1.07	0.73
SDRI127-681MA	680	M	1.46	0.67
SDRI127-821MA	820	M	1.64	0.60
SDRI127-102MA	1000	M	1.80	0.55

※Tolerance: N +40%,-20% M±20%

※IDC:ΔL／L（0A）≦25% or Temperature raise becomes ΔT=40℃ (Ta=20℃), whichever lower.

※Test Frequency: 1.2uH~7.6uH(N)：100KHZ,0.25V 10uH~1000uH(M)：1KHZ,0.25V

RoHS

SHIELDED SMT POWER INDUCTORS

SDRI129 TYPE

Part NO	L (uH)	Tolerance	RDC(Ω) max	Isat(A) max	Irms(A) Max
SDRI129-1R0NA	1.0	N	0.0065	19.9	11.6
SDRI129-1R8NA	1.8	N	0.0075	13.4	11.0
SDRI129-2R5NA	2.5	N	0.0090	12.2	10.3
SDRI129-3R5NA	3.5	N	0.0107	12.0	8.70
SDRI129-4R7NA	4.7	N	0.0120	10.1	8.40
SDRI129-6R8NA	6.8	N	0.0130	8.56	7.10
SDRI129-7R5NA	7.5	N	0.0150	8.48	6.80
SDRI129-100NA	10	N	0.0180	7.12	6.95
SDRI129-120MA	12	M	0.0190	7.04	6.20
SDRI129-150MA	15	M	0.0260	5.84	5.22
SDRI129-220MA	22	M	0.0290	5.12	4.95
SDRI129-330MA	33	M	0.0530	4.25	3.60
SDRI129-470MA	47	M	0.0630	3.60	3.45
SDRI129-560MA	56	M	0.0680	2.85	2.95
SDRI129-680MA	68	M	0.0930	2.76	2.85
SDRI129-820MA	82	M	0.0990	2.62	2.60
SDRI129-101MA	100	M	0.126	2.31	2.45
SDRI129-121MA	120	M	0.154	2.05	2.20
SDRI129-151MA	150	M	0.174	1.80	1.90
SDRI129-181MA	180	M	0.191	1.66	1.86
SDRI129-221MA	220	M	0.246	1.64	1.72
SDRI129-331MA	330	M	0.386	1.28	1.28
SDRI129-471MA	470	M	0.471	1.06	1.25
SDRI129-561MA	560	M	0.650	1.01	0.98
SDRI129-681MA	680	M	0.730	0.83	0.96
SDRI129-821MA	820	M	0.824	0.81	0.94
SDRI129-102MA	1000	M	1.200	0.70	0.78
SDRI129-122MA	1200	M	1.330	0.64	0.79
SDRI129-152MA	1500	M	1.990	0.56	0.58
SDRI129-182MA	1800	M	2.180	0.48	0.54
SDRI129-222MA	2200	M	2.580	0.43	0.52

※Tolerance：N±30% M±20%

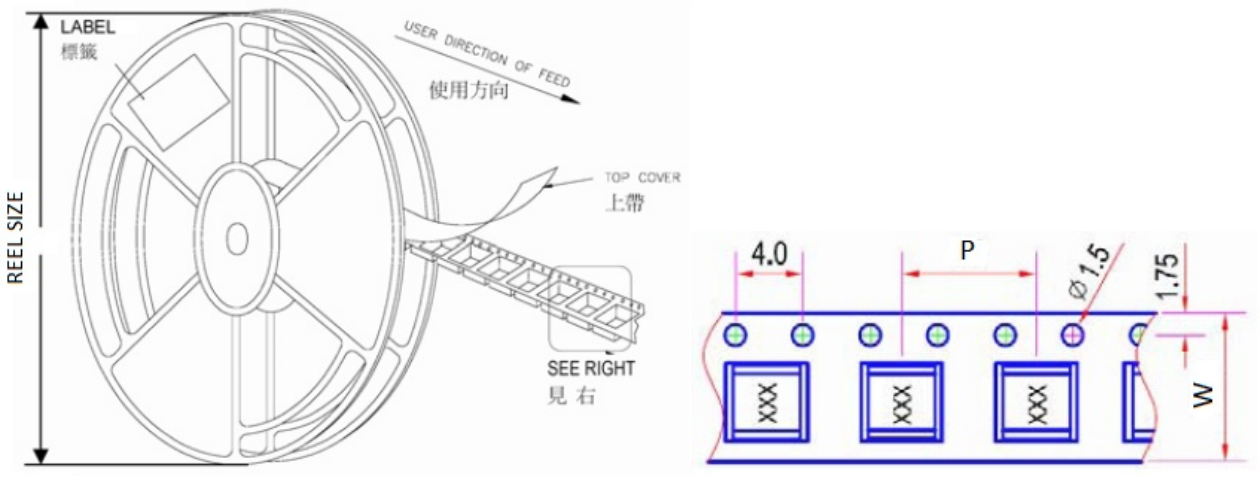
※Isat:ΔL／L（0A）≦25% ; Irms: Temperature raise becomes ΔT=40℃ (Ta=20℃),

※Test Frequency：1.0H~10uH(N)：100KHZ,1.0V 10uH~2200uH(M)：1KHZ,0.25V

RoHS

REEL DIMENSIONS :

Unit: mm

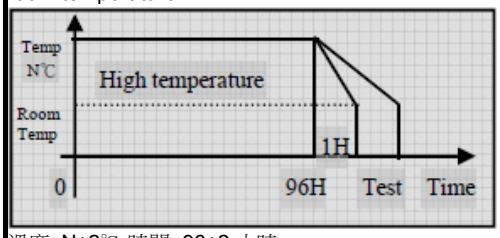
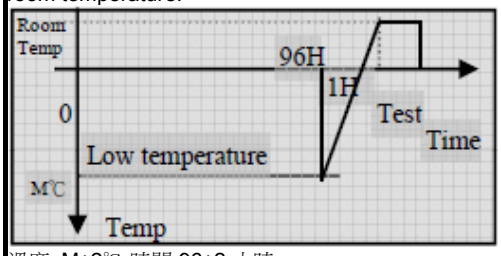
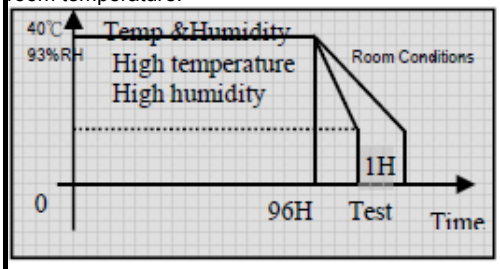
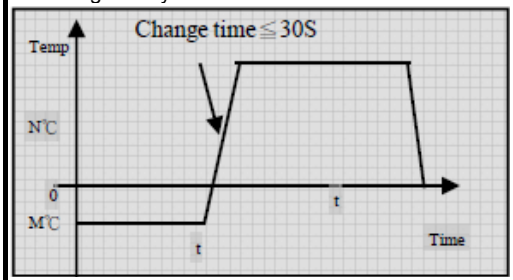


REEL PACKAGING QUANTITY

TYPE	W	P	REEL SIZE	PCS / REEL
SDRI74	16	12	330 mm (13”)	1000
SDRI124	24	16	330 mm (13”)	500
SDRI125	24	16	330 mm (13”)	500
SDRI127	24	16	330 mm (13”)	350
SDRI129	24	16	330 mm (13”)	250

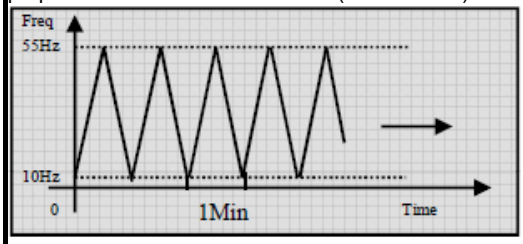
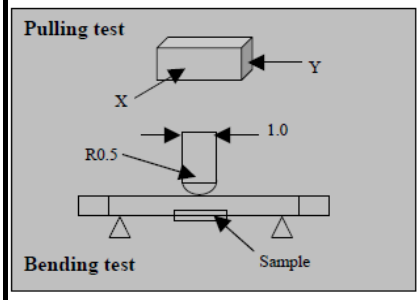
RELIABILITY AND TEST CONDITION

Environmental tests conditions (SMD wire wound Inductor)

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

RoHS

Physical characteristic tests conditions (SMD wire wound Inductor)

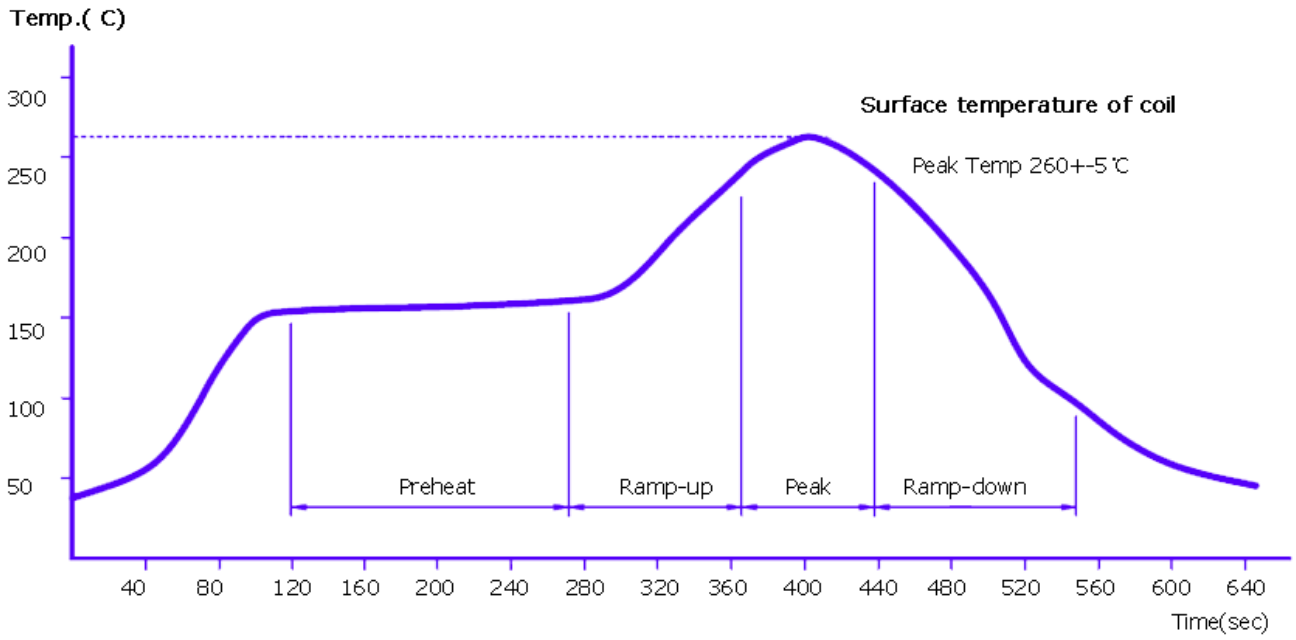
Item (項目)	Required Characteristics (要求)	Test Method/Condition (測試方法)
Solderability test Reference documents: MIL-STD-202G Method 208H IPC J-STD-002B 可焊性測試	Terminals area must have 95% min. Solder coverage 端子必須有 95%以上著錫	● Dip pads in flux then dip in solder pot at 245±5°C for 5 second. ● Soler: lead free ● Flux: rosin flux ● 端子侵入著焊劑，然後侵入 245±5°C 錫爐中 5 秒 ● 焊料 ：無鉛焊料 ● 助焊劑: 松香助焊劑
Heat endurance of Reflow soldering Reference documents: IPC J-STD-020D 過再流焊測試	● No case deformation or change in appearance. ● ΔL/L≦10% or 15% ● ΔDCR/DCR≦10% ● 無明顯的外觀缺陷 ● 感值變化不超過 10% 或者 15% ● 直流電阻變化不超過 10%	● Refer to the next page reflow curve Go through 3 times ● The peak temperature : 260+/-5℃ ● 參照下頁回流焊曲線過三次 ● 峰值溫度為: 260+/-5℃
Vibration test Reference documents: MIL-STD-202G Method 201A 振動測試	1.No case deformation or change in appearance. 2.No short and no open. 1.無明顯的外觀缺陷 2.無短路開路異常	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	1.No case deformation or change in appearance. 2.No short and no open. 1.無明顯的外觀缺陷 2.無短路開路異常	Packaged & Drop down from 1m with 981m/s2(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 棱 2 面
Terminal strength push test Reference documents: JIS C 5321:1997 端子強度試驗	Pulling test: DEFINE: A: sectional area of terminal 0.5mm^2<A≦1.2mm^2；force >2kgf； time : 10sec 1.2mm^2<A ；force >4kgf； time: 10sec Bending test: Soldering the products on PCB, after the pulling test and bending test ,terminal should not pull off 推力測試 定義: A: 焊接端子截面積 0.5mm^2<A≦1.2mm^2；推力 >2kgf； 時間: 10sec 1.2mm^2<A ；推力 >4kgf； 時間: 10sec 彎折測試： :將產品焊於 PCB 上,分別經過推力測試和彎折測試後,端子不會發生松脫	Bend the testing PCB at middle point, the deflection shall be 2mm  將 PCB 對中彎折,到達撓度 2mm
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.

RoHS

RELIABILITY TEST CONDITIONS
WIRE WOUND CHIP INDUCTORS TYPE

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	● During the test no smoke, no peculiar, smell, no fire ● The characteristic is normal after test ● 試驗過程中無冒煙,異味,著火等, ● 試驗後產品特性正常	Apply twice as rated current for 5 minutes. (It's not application to some special design) 通兩倍額定電流 5 分鐘 (部分特殊設計產品不適用)

Curve of Heat endurance of Reflow soldering test



1. This peak temperature only applicable to some special parts. The operating parameter may very according to the part type.
2. A test is made under the conditions mentioned above. And it is left 1 hour in the normal temperature and humidity. After that, no mechanical and electrical defeat should be found out.
3. The reflow condition is according to the machine used by our company.

NOTE：Above specifications are only for reference, follow confirmation documents for the specific test conditions.

RoHS