

POWER WIREWOUND RESISTOR

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1. FEATURE

- HIGH RESISTIVITY TO HEAT, SMALL RESISTANCE TEMP. COEFFICENT AND THE CHANGE IN RESISTANCE WITH TEMPERATURE BEING LINAR.
- RESISTANCE VALUE UNCHANGED AFTER LONG USE, GOOD RESISTIVITY TO SHORT TIME OVERLOAD.
- SMALL IN SIZE BUT CAPABLE OF CARRYING HIGH POWER LOAD.
- MULTI-TERMINAL TYPES VARIABLE TYPES AVAILABLE.

2. PERFORMANCE:

- RESISTANCE TEMP. COEFF ± 400,260,100PPM/°C
- SHORT TIME OVER LOAD $\pm (2\% \pm 0.05 \Omega)$
- INSULATION RESISTANCE 500V 20M Ω MIN.
- VOLTAGE WITHSTANDING 1000V FOR 1 MIN

APPROVED	CHECKED	DESIGNED	REMARK	DOCUMENT NO.
Carol	May	Chen		0201010050



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3. EXPLANATIONS OF ORDERING CODE

Power

Example: DESCRIPTION: CH 100W 5% 10Ω

SYNTON CODE: CH 100W J 100

Product

POWER
WIREWOUND
RESISTOR

CH TYPE

(Please see detail of Figure1) **Tolerance**

J: ±5% G: ±2% F: ±1% Resistance

Value

E24 Series 5%

3 Digits: $1R0:1\Omega$

 $2R2 : 2.2\Omega$ $100 : 10\Omega$

 $\mathbf{101}:\mathbf{100}\,\Omega$

E96 Series 1%

4 Digits:

1R00 : 1Ω 2R20 : 2.2Ω

10R0 : 10Ω

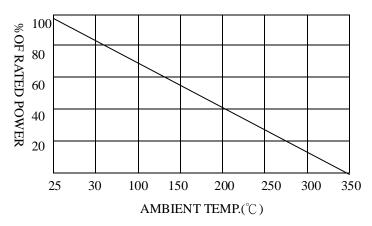
 $1000:100\Omega$



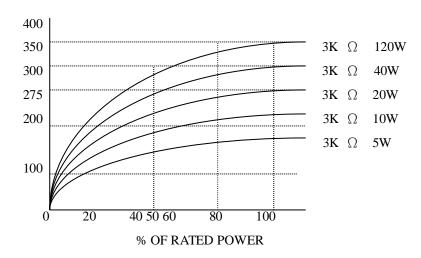
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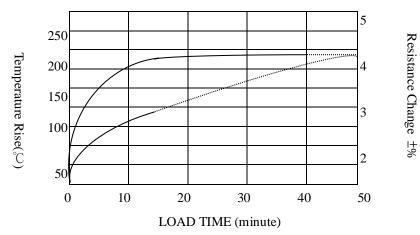
4. **DERATING**



5. SURFACE TEMP. VS POWER LOAD



6. **TEMP. VS TIME (100% LOAD)**





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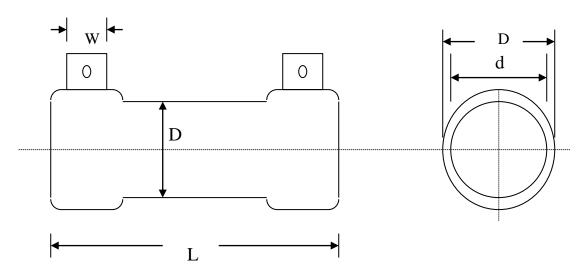
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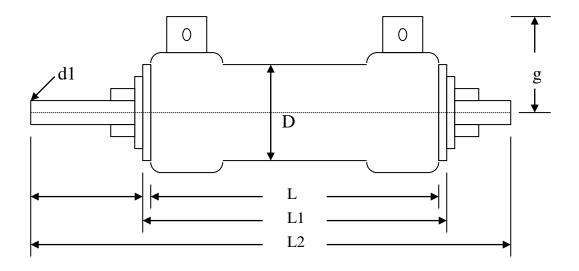
POWER WIREWOUND RESISTOR

7. RATING & GENERAL SPECIFICATION

CH TYPE



CH-O TYPE

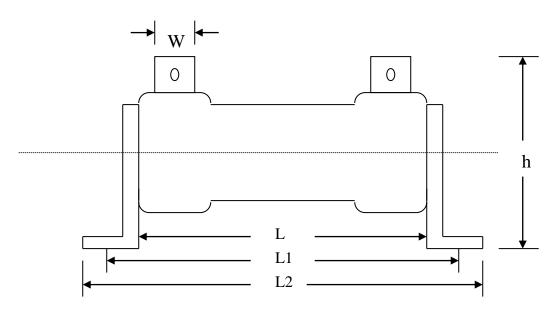




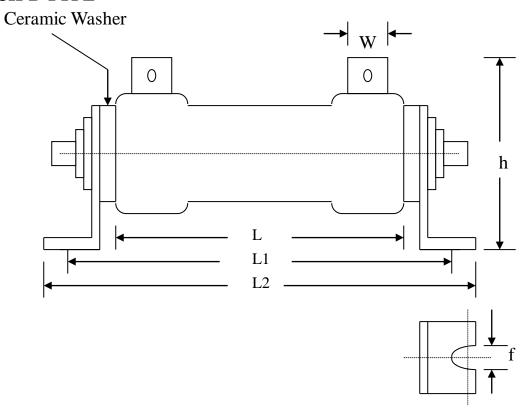
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CH-A TYPE



CH-B TYPE





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8. DIMENSION

Silicone	Resistant Range		Dl	IMEI	NSIO	N(m	m)		ОТ	YPE	A	TYP	E	В	TYF	PE
coating TYPE	()Adjustable type	L	D	d	g	W	d1	f	L1	L2	L1	L2	h	L1	L2	h
CH 5W	$0.1\Omega \sim 5K(650)$	30	12	6	17	5			40	52						
CH 10W	$0.1\Omega \sim 10K(650)$	45	12	6	17	5			55	67						
CH 15W	$0.1\Omega \sim 15K(650)$	45	15	8	19	5			55	67						
CH 20W	$0.1\Omega \sim 20K(1K)$	50	19	10	20	5	4	4.1	60	77	66	80	38	76	86	38
CH 25W	$0.1\Omega \sim 20 \text{K}(1\text{K})$	60	19	10	20	5	4	4.1	70	87	76	90	38	86	96	38
CH 30W	$0.1\Omega \sim 30K(1K)$	75	19	10	20	5	4	4.1	85	105	91	105	38	101	111	38
CH 40W	$0.1\Omega \sim 40K(1K)$	90	19	10	20	5	4	4.1	100	115	106	120	38	116	126	38
CH 50W CCH75W	0.1Ω ~ 50K(2K)	75	30	16	32	8	5	5.2	89	110	105	120	58	115	131	58
CH 60W CCH90W	0.1Ω ~ 60K(2K)	90	30	16	32	8	5	5.2	104	120	120	135	58	130	146	58
CH 80W CCH120W	0.1Ω ~ 80K(3K)	115	30	16	32	8	5	5.2	129	150	145	160	58	155	171	58
CH 100W CCH150W	0.1Ω~ 100K(3K)	140	30	16	32	8	5	5.2	154	173	170	185	58	180	196	58
CH 120W CCH180W	0.1Ω~ 120K(4K)	163	30	16	32	8	5	5.2	179	200	193	208	58	203	221	58
CH 150W CCH225W	0.1Ω~ 150K(4K)	195	30	16	32	8	5	5.2	209	230	225	240	58	235	251	58
CH 200W CCH300W	0.1Ω~ 200K(8K)	254	30	16	32	8	5	5.2	268	288	284	299	58	294	310	58
CH 250W CCH375W	0.1Ω~ 250K(8K)	303	30	16	32	8	5	5.2	319	340	333	348	58	343	361	58
CH 300W CCH450W	0.1Ω~ 300K(10K)	254	45	28	47	15		9.15						309	330	90
CH 400W CCH600W	0.1Ω~ 400K(15K)	330	45	28	47	15		9.15						385	406	90
CH 500W CCH750W	0.1Ω~ 500K(25K)	303	55	35	52	15		9.15						358	378	95
CH 600W CCH850W	0.1Ω~ 600K(25K)	330	55	35	52	15		9.15						385	405	95
CH 750W CCH1000W	0.2Ω~ 750K(30K)	390	55	35	52	15		9.15						445	465	95
CH 1000W CCH1500W	0.2Ω~ 1M(50K)	500	55	35	52	15		9.15						555	575	95
CH 1500W CCH2250W	0.5Ω~1.5M(50K)	500	69	40	60	15		9.15						584	608	130
CH 2000W CCH3000W	0.5Ω~ 2M(50K)	650	69	40	60	15		9.15						734	758	130

Figure1



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1. DIMENSION "L" TOLERANCE:

5W ~ 50W: ±5mm 60W ~ 100W: ±10mm 120W~500W: ±20mm 500W ~ : ±20mm

2. SPECIFICATIONS PER CUSTOMER'S REQUIREMENTS

3. INDUCTIVE/NON-INDUCTIVE ARE AVAILABLE

4. CCH: SPECIAL TYPE WITH CERAMIC COATING



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Test Report

欣统股份有限公司 / SYNTON-TECH CORPORATION

台灣省新北市汐止區新台五路一段79號16樓之3 (遠東世界中心)

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(廣東省東莞市大朗鎮水口村水常一路13號)

(NO. 13, SHUICHANG FIRST ROAD, SHUIKOU VILLAGE, DALANG TOWN, DONGGUAN, GUANGDONG, CHINA)

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by/on behalf of the applicant as):

樣品名稱(Sample Description) : CH, QH, CF TYPE WIREWOUND RESISTOR

樣品型號(Style/Item No.)

: CHS TYPE

收件日期(Sample Receiving Date) : 2014/07/29 測試期間(Testing Period)

: 2014/07/29 TO 2014/08/05

測試需求(Test Requested):

依據客户指定, 進行錫, 鉛, 汞, 六價鉻, 多溴聯苯,多溴聯苯醚測試. (As specified by client, to test Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs contents in the

submitted sample.)

测試方法(Test Method) :

請見下一頁 (Please refer to next pages).

測試結果(Test Results) :

請見下一頁 (Please refer to next pages).

Troy Chang Manager - Tech Signed for and on behalf of SGS TAIWAN LTD. Chemical Laboratory - Taipei

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(NO. 13, SHUICHANG FIRST ROAD, SHUIKOU VILLAGE, DALANG TOWN, DONGGUAN, GUANGDONG, CHINA)

測試結果(Test Results)

測試部位(PART NAME)No.1

: 整體混測 (MIXED ALL PARTS)

测試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限値 (MDL)	結果 (Result) No.1
電漿原子發射 reference to		參考IEC 62321-5: 2013方法,以感應耦合 電漿原子發射光譜儀檢測. / With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n.d.
舒 / Lead (Pb)	mg/kg	冬考IEC 62321-5: 2013方法, 以感應耦合 電漿原子發射光譜儀檢測. / With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n.d.
汞 / Mercury (Hg)	mg/kg	多考IEC 62321-4: 2013方法, 以感應耦合 電漿原子發射光譜儀檢測. / With reference to IEC 62321-4: 2013 and performed by ICP-AES.	2	n.d.
六價络 / Hexavalent Chromium Cr(VI)	mg/kg	多考IEC 62321: 2008方法, 以UV-VIS檢測. / With reference to IEC 62321: 2008 and performed by UV-VIS.	2	n.d.
多溴聯苯總和 / Sum of PBBs	mg/kg		-	n.d.
一溴聯苯 / Monobromobiphenyl	mg/kg		5	n.d.
二溴聯苯 / Dibromobiphenyl	mg/kg		5	n.d.
三溴聯苯 / Tribromobiphenyl	mg/kg		5	n.d.
四溴聯苯 / Tetrabromobiphenyl	mg/kg	參考IEC 62321: 2008方法, 以氣相層析/質	5	n.d.
五溴聯苯 / Pentabromobiphenyl	mg/kg	譜儀檢測. / With reference to IEC	5	n.d.
六溴聯苯 / Hexabromobiphenyl	mg/kg	62321: 2008 and performed by GC/MS.	5	n.d.
七溴聯苯 / Heptabromobiphenyl	mg/kg		5	n.d.
八溴聯苯 / Octabromobiphenyl	mg/kg		5	n.d.
九溴聯苯 / Nonabromobiphenyl	mg/kg		5	n.d.
十溴聯苯 / Decabromobiphenyl	mg/kg		5	n.d.

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测試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限値 (MDL)	結果 (Result) No.1
多溴聯苯醚總和 / Sum of PBDEs	mg/kg			n.d.
一溴聯苯醚 / Monobromodiphenyl ether	mg/kg		5	n.d.
二溴聯苯醚 / Dibromodiphenyl ether	mg/kg	参考IEC 62321: 2008方法,以氣相層析/質 譜儀檢測. / With reference to IEC 62321: 2008 and performed by GC/MS.	5	n.d.
三溴聯苯醚 / Tribromodiphenyl ether	mg/kg		5	n.d.
四溴聯苯醚 / Tetrabromodiphenyl ether	mg/kg		5	n.d.
五溴聯苯醚 / Pentabromodiphenyl ether	mg/kg		5	n.d.
六溴聯苯醚 / Hexabromodiphenyl ether	mg/kg		5	n.d.
七溴聯苯醚 / Heptabromodiphenyl ether	mg/kg		5	n.d.
八溴聯苯醚 / Octabromodiphenyl ether	mg/kg	¹²	5	n.d.
九溴聯苯醚 / Nonabromodiphenyl ether	mg/kg	Ī	5	n.d.
十溴聯苯醚 / Decabromodiphenyl ether	mg/kg	1	5	n.d.

備註(Note):

- 1. mg/kg = ppm ; 0.1wt% = 1000ppm
- 2. n.d. = Not Detected (未檢出)
- 3. MDL = Method Detection Limit (方法偵測極限值)
- 4. "-" = Not Regulated (無規格值)
- 5. 樣品的測試是基於申請人要求混合測試,報告中的混合測試結果不代表其中個别單一材質的含量. (The samples was/were analyzed on behalf of the applicant as mixing sample in one testing. The above results was/were only given as the informality value.)

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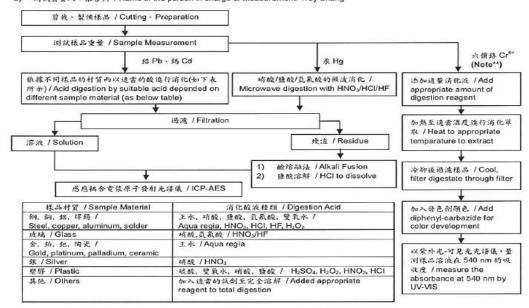
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- 根據以下的流程圈之條件,樣品已完全溶解。(六價絡消試方法除外) / These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr^{6*} test method excluded)
 测试人頁:楊登律 / Name of the person who made measurement: Climbgreat Yang
- 测试负责人:張啓興 / Name of the person in charge of measurement: Troy Chang



Note**:(1) 針對非金屬村耕加入設性消化液·加熱至 90~95℃草取. / For non-metallic material, add alkaline d gestion reagent and heat

(2) 針對全屬材料加入純水,加熱至沸騰萃取./For metallic material, add pure water and heat to boiling.

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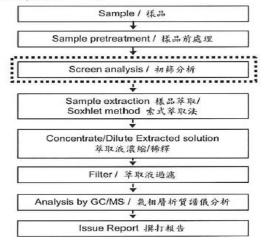
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多溴聯苯/多溴聯苯醚分析流程圖 / PBB/PBDE analytical FLOW CHART

- 测试人员: 翁赐彬 / Name of the person who made measurement: Roman Wong
- 測試負責人:張啓興 / Name of the person in charge of measurement: Troy Chang

初次测试程序 / First testing process -

選擇性篩檢程序 / Optional screen process ******* 確認程序 / Confirmation process - · - ·▶



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* 照片中如有箭頭標示,則表示爲實際檢測之樣品/部位. *

(The tested sample / part is marked by an arrow if it's shown on the photo.)

CE/2014/75449



** 報告結尾 (End of Report) **

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