规 格 承 认 书

APPROVED SHEET

客户 CUSTOMER： 立创商城

品名 PRODUCT ： 碳膜电阻

规格 TYPE ：

客户承认印 CUSTOMERAPPROVED

东莞市粤翔电子科技有限公司
DongGuan City FlyWin electronic SCI-tech co.,Ltd
地址：广东省东莞市企石镇新南管理区第二工业区
电话： 0769--86732558 传真： 0769--86666308

一式二份 粤翔一份 客户一份

出图 DRAWING			
发行	业务	审核	核准
ISSUE	SALES	AUDITING	APPROVED

DATE： 2018年 12月 13 日 粤翔电子科技品保部 承认书编号 CR20181213001

C R

CARBON FILM FIXED RESISTORS 碳膜固定电阻器 FLYWIN

CR(1/8W, 1/4WS, 1/4W, 1/2WS, 1/2W, 1WS, 1W, 2WS, 2W, 3WS, 3W, 5WS, 5W, 7WS)

FEATURES 特点

1 HIGH QUALITY
高品质.

2 WITHSTAND VOITAGE, SHOCK RESISTANCE
耐电压，耐冲击

3 STANDARD TOLERANCE :±5%, (±2%).
±5%, (±2%)的标准误差

4 VARIETY OF PACKAGING-BULK 26mm AND 52mm TAPE, CUT AND FORMED
可供散装，带装26mm/52mm, 成型剪脚。

5 HIGH RESISTANCE RANGE (0Ω1-10MΩ).
阻抗范围高 (0Ω1-10MΩ).

CONSTRUCTION 结构图

1 CERAMIC CORE (HIGH CONDUCTIVITY)
陶瓷棒心（高热传导）

2 HIGH STABILITY FILM
高稳定性皮膜

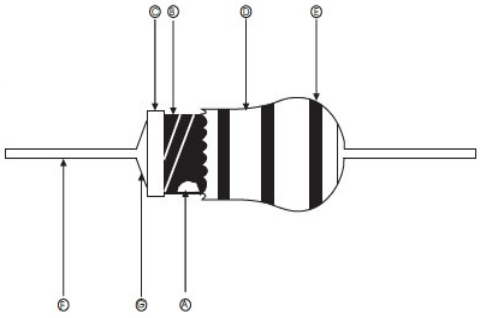
3 END CAP (HIGH RELIABILITY FITTING BY ORIGINAL CAP-PRESSING METHOD)
端帽（卯和度信赖性高）

4 HIGH INSU LATION AND SOLVENT RESISTANCE OF EPOXY RESIN COATING
(BULK POWER TO KHAKI, MINIATURE PINK)
高绝缘及耐溶剂之环氧树脂涂料（本体功率为土黄色，小型化为粉红色）

5 COLOR CODE (PER MIL& EIA STANDARDS).
符合MIL & EIA规定之标准色码带。

6 LEAD WIRE(EXCELLENT SOLDER ABILITY)
焊锡性良好的导线

7 WELDING (LONG RELIABILITY GUARANTEE)
信赖性良好的焊接



SPECIFICATION: 规格描述

EXAMPLE 例： CR1WS-9Ω1±5%-XT52

CR	1WS	9Ω1	±5%	X	T52

品名 PRODUCT

CR	碳膜电阻
MF	金膜电阻
MO	氧化膜电阻
MGR	高压玻璃釉电阻
KNP	绕线电阻
NKNP	无感绕线电阻
FR	保险电阻
FRKNP	绕线保险电阻
SCF	高压脉冲电阻

额定功率 RATED POWER

1/8W	1/4WS
1/4W	1/2WS
1/2W	1WS
1W	2WS
2W	3wS
3W	5WS
5W	7WS

阻值范围 RESISTANCE RANGE

0Ω1-22MΩ
阻值表示方法
RESISTANCE VALUE
REPRESENTATION
阻值单位按Ω, K, M
1000Ω=1K 1000K=1M
例：9Ω1/5K6/4M7

误差值 TOLERANCE

±10%
±5%
±2%
±1%

线径 WIRE DIAMETER

0:0.43CU	S:0.43CP
2:0.53CU	X:0.53CP
6:0.63CU	T:0.63CP
9:0.73CU	Q:0.73CP
C:0.83CU	D:0.83CP
A;0.75CU	

形状 SHAPE

T26	编带26MM
T52	编带52MM
T63	编带63MM
T73	编带73MM
T93	编带93MM
P	散装
M、F	成型
FK/MB/TF	成型

NOTE1注解: RATED VOLTAGE 额定电压 = $\sqrt{\text{POWER RATING 额定功率} * \text{RESISTANCE VALUE 公称阻值}}$

C R

CARBON FILM FIXED RESISTORS 碳膜固定电阻器

FLYWIN

CHARACTERISTICS 特性项目	SPECIFICATIONS 规格值		TEST METHODS JIS C 5202 测试方法 JIS C 5202标准
DC RESISTANCE 直流阻抗值	J（±5%）		RESISTANCE VALUE TEST AT ROOM TEMPERATURE 25℃ 阻值测试在室温25℃
T.C.R温度系数	1/8W 1/4WS 1/4W 1/2WS 1/2W 1WS 1W 2WS 2W 3WS 3W 5WS 5W 7WS	＜10Ω±400PPM 10Ω-1M±350PPM ＞1M±1000PPM	$\frac{R2-R1}{R1(T2-T1)}$ X 10^6PPM/℃) R1: RESISTANCE VALUE AT ROOM TEMPERATURE(T1) 常温（T1）阻抗值 R2: RESISTANCE VALUE AT ROOM TEMPERATURE +100℃（T2） 常温+100℃阻抗值
LOAD LIFE IN HUMIDITY 湿度寿命	RESISTANCE CHANGE RATE ±(5%+0.05Ω) WITH NO EVIDENCE OF RESISTOR DAMAGE. 阻坑值变化率（5%±0.05Ω），电阻器不可有损伤		RESISTANCE CHANGE AFTER 1000H(1.5H ON,0.5H OFF)AT RATED VOLTAGE IN A HUMIDITY CHAMBER CONTROLLED AT40+/-2℃ AND 90-95% RELATIVE HUMIDITY.(when thetest voltage exceeds the working voltage,considerusing the working voltage) 温度40+/-2℃，相对湿度90-95%于恒温恒湿箱中，加额定直流电压测试1.5小时停止0.5小时，连续1000小时。（当实验电压超过最高使用电压，采用最高使用电压）
LOAD LIFE 温度寿命	RESISTANCE CHANGE RATE ±(5%+0.05Ω)MAX WITH NO EVIDENCE OF RESISTOR DAMAGE. 阻坑值变化率（5%±0.05Ω），电阻器不可有损伤		RESISTANCE CHANGE AFTER 1000H OPERATING AT RATED VOLTAGE WITH DUTY CYCLE OF 1.5H ON 0.5H OFF AT 70℃±2℃(when thetest voltage exceeds the working voltage,considerusing the working voltage) 温度70+/2℃，加额定直流电压测试1.5小时停止0.5小时，连续1000小时（当实验电压超过最高使用电压时，采用最高使用电压）
SHORT TIME OVER LOAD 短时间过负荷	±(1%+0.05Ω)		RESISTANCE CHANGE AFTER THE APPLICATION OF APOTENTIAL OF 2.5T RATED VOLTAGE FOR 5 SE(when the test voltage exceeds the maximum overload,consider using the maximum overload voltage) 额定电压X2.5倍，测试5秒（当实验电压超过最高过负载时，采用最高过负载电压）
PULSE OVER LOAD 断续过负荷	1/8W，1/4W，1/2W，1W，2W，3W，5W	±(1%+0.05Ω)	RESISTANCE CHANGE AFTER 10000C(1SEC ON,25SEC OFF)AT 4T RATED VOLTAGE (AC)when the test voltage exceeds the maximam overload,consider using the maxmum overload voltage) 额定电压*4倍（交流电压），测试1秒停止25秒，测试10000次。（当实验电压超过最高过负荷电压，采用最高过负荷电压）
	1/4WS,1/2WS,1WS,2WS,3WS,5WS，7WS	±(2%+0.05Ω)	RESISTANCE CHANGE AFTER 10000C(1SEC ON,25SEC OFF)AT 4T RATED VOLTAGE (AC)when the test voltage exceeds the maximam overload,consider using the maxmum overload voltage) 额定电压*4倍（交流电压），测试1秒停止25秒，测试10000次。（当实验电压超过最高过负荷电压，采用最高过负荷电压）
RESISTANCE TO SOLVENT 耐溶剂性	NO VISIBLE DAMAGES TO PROTECTIVE COAATING AND MARKING(外观无异常，标识能够清楚易辨		SOAK 3MIN IN THE MELTING AGENT TO AGAIN AND AGAIN WIPE 10 TIMES (三氯乙稀浸泡3分钟，再用湿布反复擦拭10次）
INSULATION RESISTANCE 绝缘阻抗	>1000MΩ		
ELECTRIC WITHSTANDING VOLTAGE 绝缘耐电压	RESISTANCE CHANGE RATE ±(1%+0.05Ω) WITH NO EVIDENCE OR RESISTOR DAMAGE. 阻坑值变化率±（1%+0.05Ω），电阻器不可有损伤		ELECTRIC RESISTANCE BOTH ENDS THE CONJUNCTION LINE PUT ON THE METALS V TYPE THE SLOT, ACCORDING TO THE ELECTRIC VOLTAGE PROVISION OF THE CHARACTERISTIC WATCH 60 SECONDS INFLICTION 电阻两端导线置于金属V型槽上，依特性表之电压规定施加60秒
TEMPERATURE CYCLING 温度循环	RESISTANCE CHANGE RATE IS ±(1%+0.05Ω) MAX, WITH NO EVIDENCE OF RESISTOR DAMAGE. 阻坑值变化率±（1%+0.05Ω） 以内，电阻器不可有损伤		STEP 步骤、 / TEMPERATURE 温度 / TIME(MIN)放置时间 1 / -55℃±2℃ / 30 2 / ROOM TEMP室温 / 10-15 3 / 85℃±2℃ / 30 4 / ROOM TEMP室温 / 10-15
RESISTANCE TO SOLDERING HEAT 耐热性	RESISTANCE CHANGE RATE IS ±(2%+0.05Ω) MAX, WITH NO EVIDENCE OF RESISTOR DAMAGE. 阻坑值变化率（2%±0.05Ω） 以内，电阻器不可有损伤		PUT THE LEAD LINE OF RESISTANCE INTO THE SOLDERING ABOUT 3.2 TO 4.8MM PIEASE TAKE IMPLEMENTATION ON THE BASISO OF THE TABLE BELOW 将电阻两端导线浸入锡炉约3.2至4.8MM依下表规定实施 TEMPERATURE温度 / DIP TIME放置时间 350℃±10℃ / 3±0.5 SEC 260℃±5℃ / 10±1.0 SEC
SOLDERABILITY 焊锡性	95% COVERAGE MINIMUM 95%覆盖于导线上		TEST TEMPERATURE OF SOLDER:230℃±5℃ DWELL TIME IN SOLDER:3±0.5 SEC 锡炉温度：230℃±5℃ 浸锡时间：3±0.5 秒
SOLDER JOINT PULL 焊点拉力	PULLING TEST FOR 1/8W≥1.8KG，1/4W≥3.8KG，1/2W BIGGER THAN ≥5KG 拉力强度 1/8W≥1.8KG，1/4W≥3.8KG，1/2W 含以上 ≥5KG		SECURE BOTH LDAD WIRE ON EACH SIDE OF PULLING MACHING AND THEN PULL IT 将成品电阻铜线一端夹在拉力器的一端，铜线另一端也夹在拉力器上，再摇动拉力器
Life & failure rate 寿命失效率	Under the rated condition Use Lire≥ 10000H 额定条件下使用寿命≥10000小时		failure rate≤10PPM 失效率≤10PPM

C R

CARBON FILM FIXED RESISTORS 碳膜固定电阻器 FLYWIN

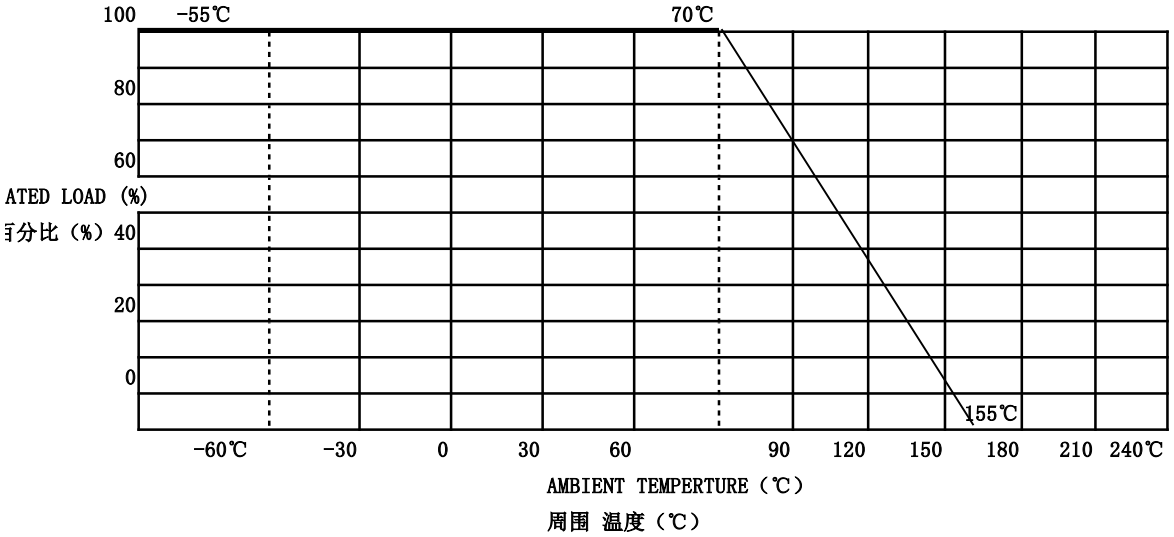
POWER CHARACTERISTIC 电力特性

ITEM 项目 \ POWER PATED 额定功率		0.125W (1/8W)	0.25WS (1/4W)S	0.25W (1/4W)	0.5WS (1/2W)S	0.5W (1/2W)	1WS	1W	2WS	2W	3WS	3W	5WS	5W	7WS
MAX WORKING VOLTAGE 最高使用电压		200V	250V	250V	350V	350V	500V	500V	500V	500V	500V	500V	500V	750V	750V
MAX OVERLOAD VOLTAGE 最高过负荷电压		400V	500V	500V	700V	700V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V
MAX INTERMITTENCE OVER LOAD VOLTAGE 最高断续过负荷		400V	500V	500V	700V	700V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V	1000V
ELECTRIC WITHSTANDING VOLTAGE 绝缘耐电压		300V	300V	400V	400V	500V	500V	700V	700V	700V	700V	700V	700V	700V	700V
RESISTANCE TOLERANCE 阻抗误差值		J（±5%）G（±2%）													
RANGE(OHM) 阻抗值范围	MIN	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω
	MAX	22MΩ	22MΩ	22MΩ	22MΩ	22MΩ	22MΩ	22MΩ	22MΩ	22MΩ	22MΩ	22MΩ	22MΩ	22MΩ	22MΩ

NOTE注解： 1M ohm is high risk resistance for thin film resistors.

薄膜电阻1M以上阻值为高风险阻值

POWER DERATING CURVE 负载衰减曲线



NOTE注解：

1 RATED AMBIENT TEMPERATURE :70℃

额定周围温度：70℃

2 OPERATING TEMPERATURE RANGE:-55℃～+155℃

使用温度范围：-55℃～+155℃

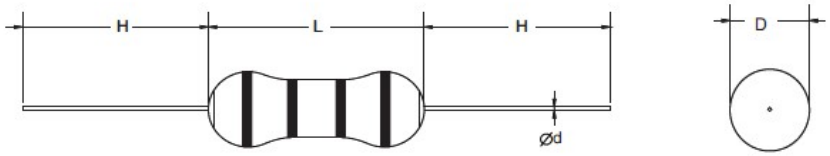
3 FOR RESISTORS IPERATED IN AMBIENT TEMPERATURE OVER 70℃,POWER RATING SHALL BE DERATED IN ACCORDANCE WITH THE FIGURE

周围温度70℃以上使用时，根据降功率曲线将减轻额定功率

C R

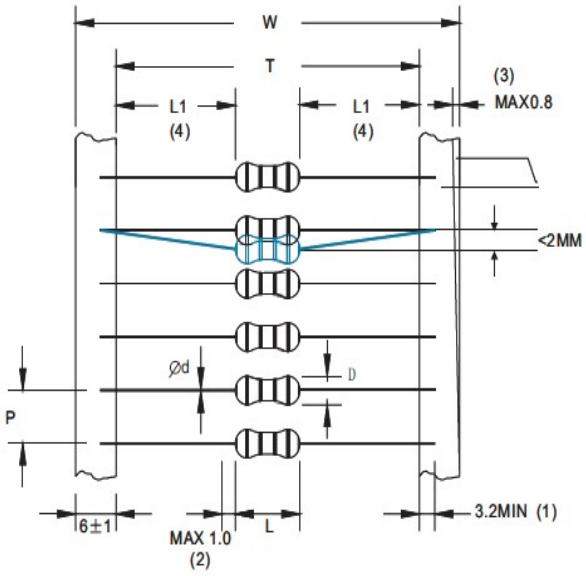
CARBON FILM FIXED RESISTORS 碳膜固定电阻器 FLYWIN

BULK TYPE DIMENSION (TO TYPE)



TYPE	LEAD TYPING DIMENSION(mm)			
	L±1.0	D±1.0	Φd±0.05	H±3.0
1/8W 1/4WS	3.7	2.3	0.43	26
1/4W 1/2WS	6.2	2.7	0.43	26
1/2W 1WS	9	3.5	0.53	26
1W 2WS	11	4.5	0.63	31
2W 3WS	15.5	5	0.73	31
3W 5WS	17.5	6	0.73	31
5W 7WS	25	8	0.83	39

TO TYPE



TYPE	LEAD TYPING DIMENSION(mm)					
	T +1.5 -0.0	D±1.0	Φd±0.05	P±0.3	L±1.0	T +2.0 -0.0
1/8W 1/4WS	26	2.3	0.43	5	3.7	38
	52					64
1/4W 1/2WS	26	2.7	0.43	5	6.2	38
	52					64
1/2W 1WS	52	3.5	0.53	5	9	64
1W 2WS	63	4.5	0.63	5	11	75
2W 3WS	73	5	0.73	10	15.5	85
3W 5WS	73	6	0.73	10	17.5	85
5W 7WS	93	8	0.83	10	25	105

1 LEAD DIMENSIONS INCLUDED IN TAPE
纸带内缘导线长度

2 LEAD PAINT DIMENSION
涂漆于导线上的长度

3 DIFFERENCE OF A & B
A带与B带的位差

4 [L1-L2]<1.0MM
左右边差小于1.0MM

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Carbon Composition Resistors ***category:***

Click to view products by FlyWin ***manufacturer:***

Other Similar products are found below :

IBT1/4102JLF OE5655 OG5625 OB1025 OE1855 OG2005 IBT1/4100JLF OF-112JE OH6205 RC0S2CA270RKE OF224KE CF18JT910R RC20GF240J RC20GF561J RC07GF361J RC1/4435JB RC1/4135JB RC1/4201JTD RC1/2331KTD RC20GF470JTRLF RC1/2155KTD RC1/4274KTD RC1/47R5JB RC1/4565JB RC1/4160JB RC1/2475KTB RC1/2471JTD RC1/2431JTD RC1/2334KB RC1/2225KB RC1/2166KTD RC1/2103KTD RC1/2102JTD RC1/2434JB RC1/22R4JB RC1/2165JB RC07GF510JTR RCC025 2R7 J B CFR0W4J0242A10 CFR0W4J0391A50 CFR0W4J0303A50 CFR0W4J0433A50 CFR03SJ0753AA0 CFR03SJ0470AA0 CF1/6W-20K±5% T52 CF1/4W-43±5% T52 CFR01SJ0433A10 RD50T5151J RD 1/8W 33K J T/B A1 RD 2WS 3K6 J T/B A1