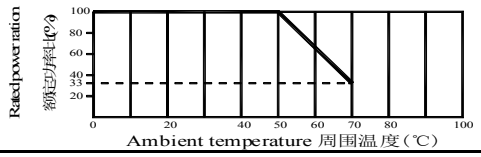
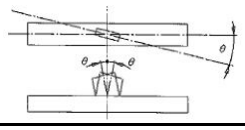
C6066G SERIES GENERAL SPECIFICATION
C6066G系 列 规 格 书

1、General一般事项

1.1 Scope The specification applies to model C6066Gtype	适用范围 此规格书适用于C6066G机型，
1.2 Operating temperature range: -10℃～70℃	使用温度范围： -10℃～70℃
1.3 Storage temperature range: -30℃～70℃	保存温度范围： -30℃～70℃
1.4 Test conditions Standard atmospheric conditions: Unless otherwise specified, the standard range of atmospheric conditions for making measurements and test is as follows: Ambient temperature:5～35℃ Relative humidity:45～85% Air pressure:86kpa to 106kpa. If there is any doubt about the results,measurements shall be made within the following limit: (Ambient temperature:20±2℃ Relative numidity:60～70% Air pressure:86kpa to 106kpa).	试验状态 标准状态： 无特别规定之实验及测定时以温度： 5～35℃，相对湿度：45～85%， 气压：86～106kap之标准状态测定。 发生判定疑问或另有特别要求则以基准状态（温度：20±2℃，相对湿度：60～70%，气压：86～106kap）为标准测定。

2 ELECTRICAL CHARACTERISTICS电气特性

Item 项 目	Conditions 条 件		Specifications 规 格
2.1Nominal total resistance and tolerance 公称全阻抗值	The resistance between terminals 1 and 3 shall be measured 端子1-3间阻值测定。		10KΩ ±20%
2. 3Resistance law 阻抗变化特性	Measurement shall be made by the resistance law method. For other procedures(refer JISC5261 standard) 用电压法测试，参照JISC5261标准。		B Taper线性 Refer to the attached 参见附页
2.4、Power rating 额定功率	Power rating is based on continue full load operation at the maximum voltage between terminals 1 and 3 . Power rating vs.ambient temperature shall be denoted on the following graph. 端子1-3间连续负载后的最大功率。 环境温度对功率影响的曲线如下图表示：  		0.1W
2.5、 ■ Residual resistance 残留电阻	Contact brush stop at the end of the (A).Resistance Between terminals 1 and 2, Terminals 2 and 3 shall be measured.A: Travel of effective rotation 接触刷停留在(A)终端位置, 在端子1-2间, 端子2-3间测定之电阻值. A:有效滑动行程		R1.2＜10Ω R1.2＜10Ω
□ Maximum attenuation 最大衰减量	15A,B(1B):The lever shall be set the term.1 side end.15C:The lever shall be set at the term.3 side end. The maximum attenuation between term,2-3(15C) or 1-2(others),shall be measured when voltage is applied to term.1-3		
2.6、分中阻值			R1,2与R2,3误差≤150Ω
2.6、Rated voltage 额定电压	Rated voltage 额定电压：$E=\sqrt{PR}$ Power rating P: 额定功率 (W) When the rated voltage exceeds the maximum operating voltage. the maximum operating voltage shall be the rated voltage . 额定电压大于最高使用电压时,最高使用电压作为额定电压.	Maximum operating voltage 最高使用电压 Nominal total resistance R：公称全阻抗值	150V AC
2.7Sliding noise 滑动噪音	Apply DC20V between terminals 1-3 to measure the noise voltage (rated voltage ≤20V apply by rated voltage). 在端子1-3间加直流电压20V(额定电压≤20V,则以额定电压值测试)后,测定的杂音电压. Traveling speed:1Cycles/3sec 滑动速度：1来回/3秒3		Less than 60mVp-p 60mVp-p 以下
2.8、Insulation resistance 绝缘阻抗	A voltage of 250V DC shall be applied 1 min,after which measurement shall be madeDC.250V 1分钟	Between individual terminals and frame/shaft 在端子、支架与轴芯间	100MΩ or more 100MΩ 以上
2.9、Dielectric strength 耐电压	Trip current:2mA Measuring frequency : 50~60Hz ; 300V AC for 1 minutes.	Between individual terminals and frame/shaft 在端子、支架与轴芯间	Electrical characteristics shall be satisfied with specification 电气性能符合规定要求

2.10、Gang error 同步误差	The voltage of 2 V r.m.s to 15V r.m.s .Shall be applied between terminals 1 to 3 and between terminals ①to③by meauring frequency at 1KHz. The output voltage shall be measured between terminals 1 and 2 and between terminal①to②(for the 15C and 25C taper. The measurement shall be made between terminals 2 and 3 and between terminals ② and ③)it should be the same standard with the first measuring result. If there is not any doubt about the results this DC. Voltage shall be used as the test volgate 在端子1-3间，①-③间，输入频率1KHz，电压2V-15v的正弦波实效值，测量端子1-2间，端子①-②间的输出电压（适用于15C和25C线型，端子2-3间，②-③间也应测量输出电压）结合第一次的测量结果，应为同一标准，如对测量结果没有质疑，则将此电压作为测试电压值。 input impedance of the voltmeter 10MΩ or more.	■ 双联Dual：For volume contract音量用 -40~0dB ±3dB or less ≤ ±3dB □单联Single: 无
3 MECHANICAL CHARACTERISTICS机械特性		
3.1、Total travel slide 全滑动行程	Travel fo effective slide. 有效滑动行程	60±0.5mm
3.2、Sliding force 滑动力矩	Rotational speed 旋转速度 S 20㎜/sec standard atmospheric conditions 常温5°C至35°C Starting force 始动力	10~80gf Operating force +100gf MAX
3.3、Shaft stop strength 止档强度	A static load of 5Kgf shall be applied at the point 5mm from top surface of the lever for both ends in the direction of lever travel for 10 sec. 在推柄行程的两终端，推柄以上5㎜处以上位置加5Kgf静负荷10秒钟	Electrical characteristics shall be satisfied.with specification 电气性能符合规定要求
3.4、Shaft push pull strength 柄推拉强度	Push &pull static load of 5Kgf shall be applied to the shaft in vertical with axial directions for 10±1 seconds .(After fixation). 固定后距轴垂直的端面方向加5Kgf并保持10±1秒。	Shaft without damage,ratational torque without abnormality .Electrical characteristics shall be satisfied with spec 轴无破损，旋转无异常。
3.5、Lever wobble 柄摆动	A torsion moetnt of 250gf.cm shall be applied at the lever in a direction perpendlcular to the axial direction and then the deisplacement shallbe measured. .固定后电位器在与柄末端往下处施加250gf.cm静载荷。	Less than 2(2*L/20)mm L is the length between mouting surface L: 固定面到测试点的距离
3.5、Lever inclination and tortion 杆的倾斜和扭转		θ shall be less than 2°
3.6、Distance from the center of the lever 把柄之偏心	After sliding lever as far as it will go in each direction,the distance form the center of the lever to the middle of the mounting screw hole shall be measure at the both ends 把柄对固定孔中心作单侧测定	0.5mm or less on each end 单侧0.5㎜以下
3.7、Terminal strength 端子强度	A static load of 0.5kgf shall be applied to the terminals for 10s in any direction (After soldering) 在任一方向施加0.5kgf负荷10秒钟	Without functional problem because of rickety terminals or poor contact 功能无 问题且端子无明显的接触不良
4 ENDURANCE CHARACTERISTICS耐久性能		
4.1、Solder ability 焊锡性	The terminals shall be stored at a temperature of 40°C with relative humidity of 90~95%.and measured in 168h. 温度40°C，湿度90~95%RH ，168小时测定。 The terminals shall be immersed into solder bath at 260±5°C for 3±0.5s . 端子在260°±5°C温度的焊锡槽内浸锡3 ± 0.5秒.	A new uniform coating of solder shall cover 75% minimum of the surface being immersed. 浸渍面须有75%以上焊锡付着.
4.2、Resistance to soldering heat 焊锡耐热性	Method Soldering 手焊条件：Bit temperature 温度350±10°C Application time of soldering 时间：within 3 s Subjected to be soldered:Cooper clad laminated phenol in one surface of 1.6mm thickness,Do not use double side through PCB. 使用基板：T=1.6mm厚单面铜泊积层板面 Solder flux:Flux of 0.82 specific weight in bubbing type, solder flux coating apparatus shall be used and bubling surface height shall be defined substantially as half thickness of substrate,Flux shall not flow up on substrate surface; 助焊剂：使用发泡式比重0.82以上的焊剂，发泡面高大致在基板厚度一半的位置，而且助剂不可流入基板表面上。 Preheating :Surface temperature of substrate shall be settled qithin 100°C in one minutes. 预热：基板表面温度100° C以下，1分钟以内。 Wave Soldering波峰焊条件：Bit temperature 温度260±5°C Application time of soldering 时间：5 ±1秒	Change in total resistance is relative to the value before test : ±5% Without visual deformation or terminal loosing.,Electrical characteristics shall be satisfied with specification. 总阻变化值：±5% 外观无变形,端子无松动. 电气性能满足规定要求.

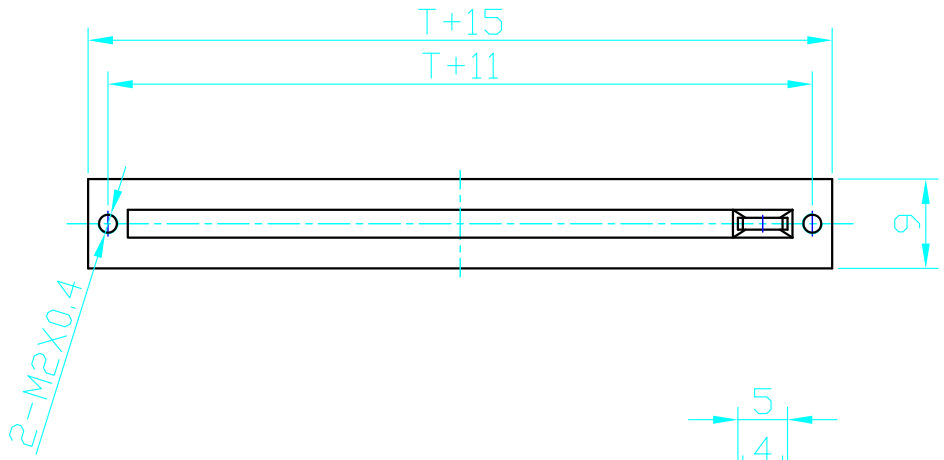
<table>
<tr><td>4.3Resistance to heat
耐热性</td><td>The potentiometer shall be stored at a temperature of 70±2°C for 240±8h in a thermostatic chamber.Then the potentiometer shall be measured after maintaining at standard atmospheric conditions for 1h, in order to remove surface moisture .
温度70±2°C恒温槽中240±8小时放置后置于常温常湿1小时除去水滴后测定。</td><td>Change in total resistance is relative to the value before test : +5/-30%
总阻变化值：初期值+5/−30%</td></tr>
<tr><td>4. 4、Resistance to cold
耐寒性</td><td>The potentiometer shall be stored at a temperature of -30±2°C for 120±4h in a thermostatic chamber.Then the potentiometer shall be taken out of the chamber and its surface moisture shall be removed.
And measure the potentiometer which shall be subjected to standard atmospheric conditions for 1h .
温度−30±2°C恒温槽中96±4小时放置后，置于常温常湿1小时除去水滴后, 1小时内测定。</td><td>Change in total resistance is relative to the value before test : ±20%
总阻变化值：初期值的 ±20%</td></tr>
<tr><td>4.5、Damp heat
耐湿性</td><td>The potentiometer shall be stored at a temperature of 40±2°C, with relative humidity of 90% to 95% for 96±4h in a thermostatic chamber. Then the potentiometer shall be taken out of the chamber and its surface moisture shall be removed.and measure the potentiometer which shall be subjected to standard atmospheric conditions for 1h.
温度40±2°C,湿度90-95%,恒温恒湿槽中放置96±4小时后,置于常温常湿1小时除去水滴后,1小时内测定。</td><td>Change in total resistance is relative to the value before test +35/-5%
总阻变化值:初期值的+35/-5%
Noise : 150mV p-p less than
转动噪音：150mV p-p 以下</td></tr>
<tr><td>4.6、Change of temperature
温度循环试验</td><td>The potentiometer shall be subjected to 5 successive change of temparature cycles,each as shown in table below. surface moisture shall be removed. .And measure the potentiometer which shall be subjected to standard atmospheric conditions for 1 hour .
以下条件温度连续5个周期的试验后,置于常温常湿1小时除去水滴后,1小时内测定。
<table>
<tr><th></th><th>Temperature 温度</th><th>Duration 放置时间</th></tr>
<tr><td>1</td><td>-10±3°C</td><td>30 min (分)</td></tr>
<tr><td>2</td><td>standard atmospheric conditions 常温</td><td>10 to 15 min(分)</td></tr>
<tr><td>3</td><td>70±2°C</td><td>30 min (分)</td></tr>
<tr><td>4</td><td>standard atmospheric conditions 常温</td><td>10 to 15 min(分)</td></tr>
</table></td><td>Change in total resistance is relative to the value before test:±20%
总阻变化值：初期值的±20%
Rotational noise: 150mV p-p less than
转动噪音： 150mV p-p 以下
Dielectric strength :with out damage to parts arcing or breakdown etc.
耐电压:无损伤,变形,绝缘破坏等情形.
Appearance: There shall be no dafo-rmation or cracks of molded part.
外观：塑胶部分无形成破裂</td></tr>
<tr><td>4.7、Endurance
耐久性</td><td>The moving contact, without electrical load, shall be rotated from one end stop to the other and returned to its original position exceeds 90% of effective angle。This procedure constitutes 1 cycle.
And the moving contact shall be subjected to 600 cycles per hour. (5000 to 8000 continuous cycles for 24h).min 15000±200 cycles.
推柄以600周/小时(来回算1次)的速度旋转(24小时只能连续5000～8000周), 有效滑动行程超过90%, min 15000±200次.</td><td>Change in total resistance is relative to the value before test : ±15% 总阻变化值：规格值的±15%
Rotational noise: 150mV p-p less than
转动噪音： 150mV p-p 以下</td></tr>
</table>

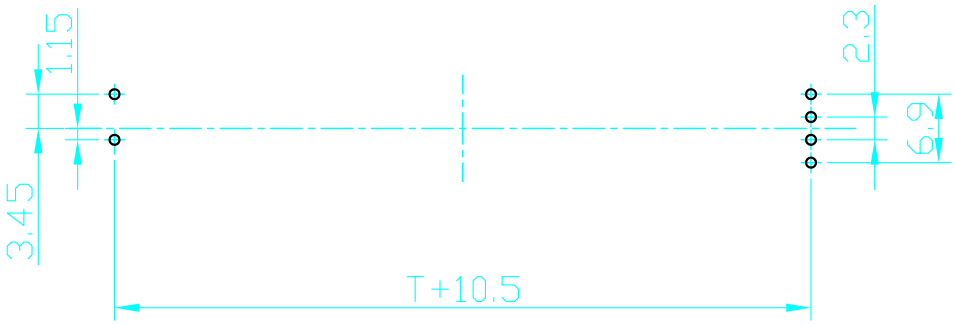
Version number 版本号：1.0

东 莞 市 长 泰 尔 电 子 有 限 公 司

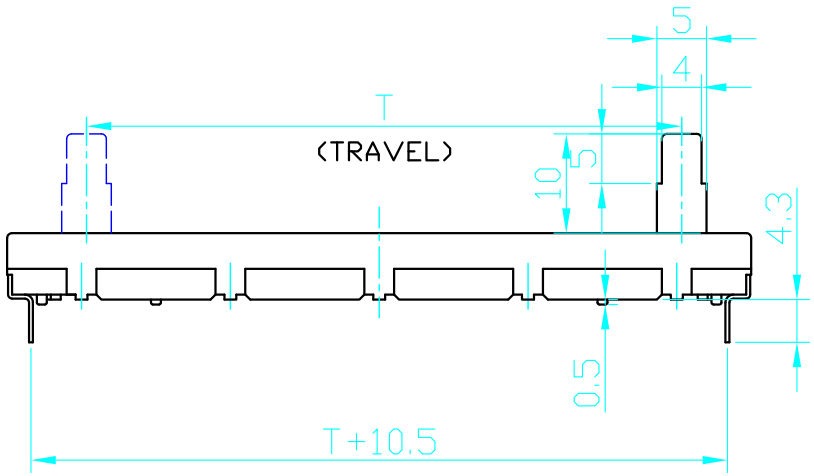
DSGD.主 办	CHKD.审 查	APPD. 核 准	TITLE 标题：
	工程部 2021.11.03 喻钊	工程部 2021.11.03 彭先炎	C6066G POTENTIOMETER C6066G 电位器

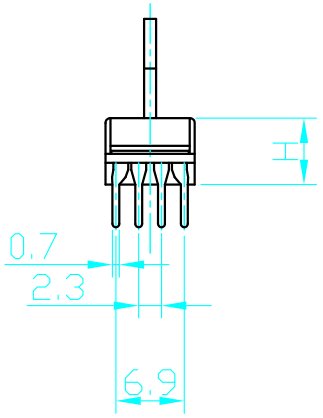
REVISION变更记事	变更时间





P.C.B MOUNTING HOLE DETAIL





T	60
H	6.5

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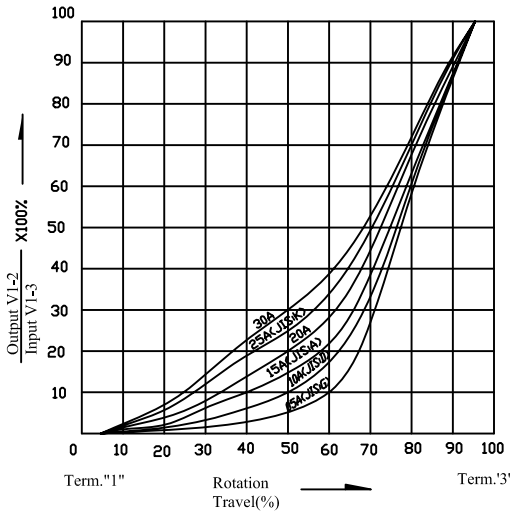
DONG GUAN CHANG TAI ER ELECTRONICS CO.,LTD.

未注尺寸公差 Gen.tolerance	比例 Scale	5:1	版本 Edition	1.0	单位 Unit	mm	设 计 Designed By	审 核 Checked By	批 准 Approved By
L≤1.0:±0.1	品 名 Type Name	直滑式电位器					工程部 2021.11.03 韦德爱	工程部 2021.11.03 喻钊	工程部 2021.11.03 彭先炎
1.0<L≤10:±0.3									
10<L≤30:±0.5	图 号 Dwg.NO.	C6066G-CE10H5.0-B103-005							
30<L≤100:±1.0									

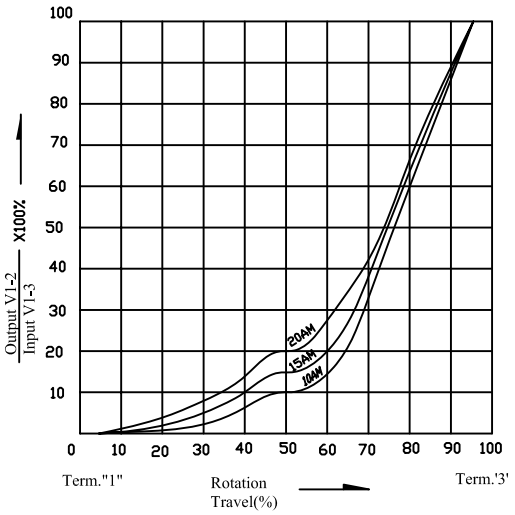
东莞市长泰尔电子有限公司
DONG GUAN CHANG TAIER ELECTRONIC CO.,LTD

阻抗变化特性
Resitance tapers

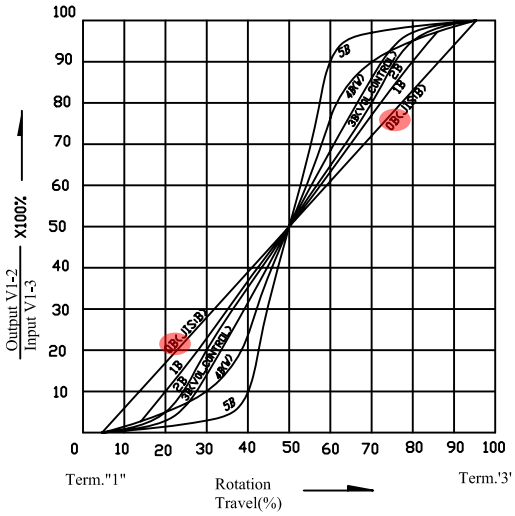
TAPERS (A) SERIES



TAPERS (A) WITH 50% TAP



TAPERS (B) SERIES



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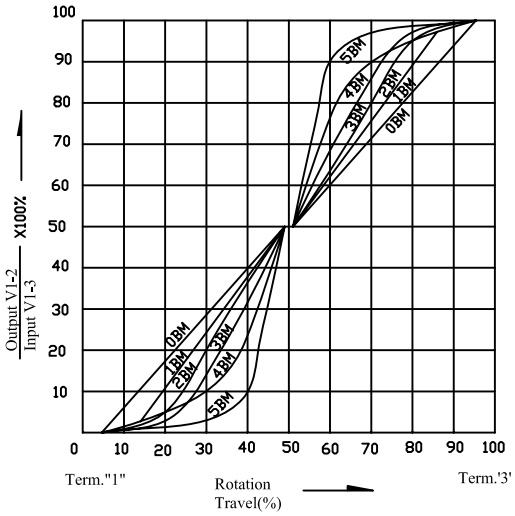
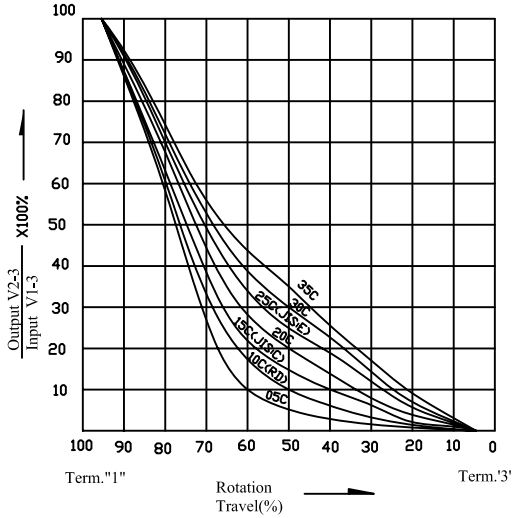


TAPERS (C) SERIES



TAPERS (M) & (N)