

东莞市高钺达电子有限公司

DONGGUAN GYUEDA ELECTRONICS CO.,LTD

承 认 书 SPECIFICATION FOR APPROVAL

Customer : _____

Description : WAF0.8间距卧贴系列

Part No. : 7400-XXA4-TG

Customer P/N : _____

高钺达电子有限公司		客 户	
工程 承 认 章		工程 承 认 章	
品 管 承 认 章		品 管 承 认 章	

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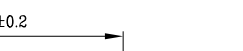
<http://www.twshetime.com>

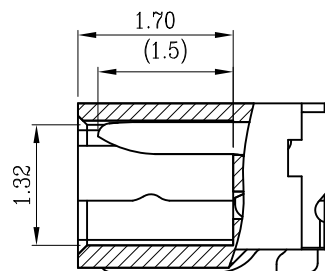
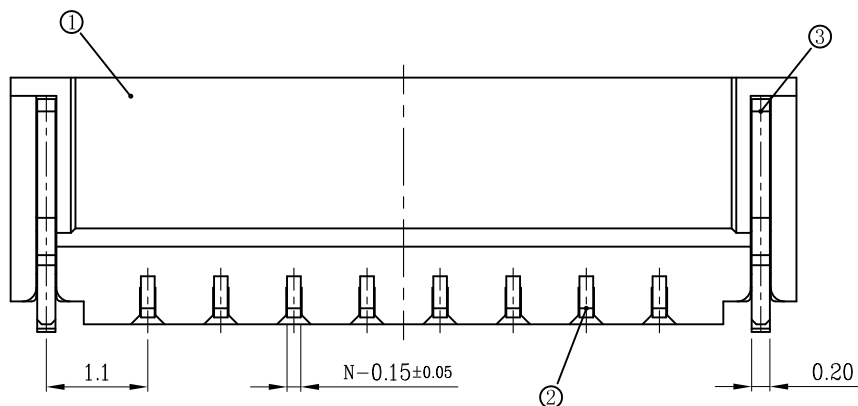
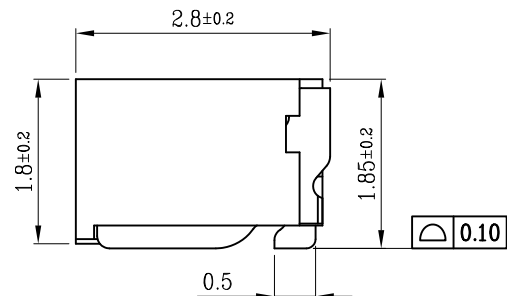
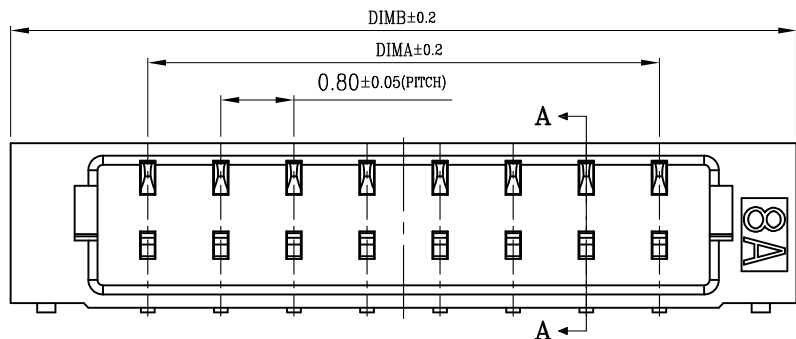
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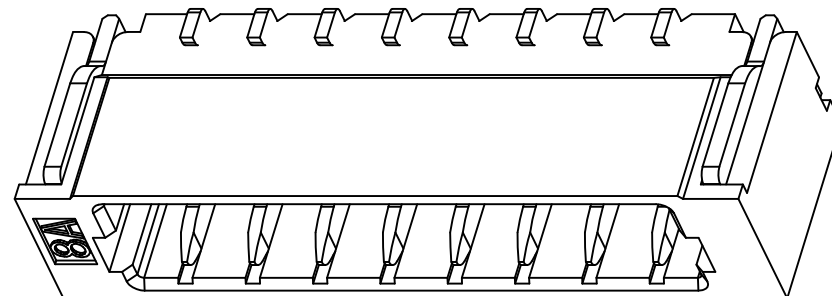
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版次	变更摘要	日期	序号	品名	材质
0	新产品发行	2018/12/28	①	0.8- C型卧式WTB胶芯	LCP UL94V-0 自然色
			②	0.8- C型卧式WTB端子	铜合金/表面镀锡
			③	0.8- C型卧式WTB焊片	铜合金/表面镀锡



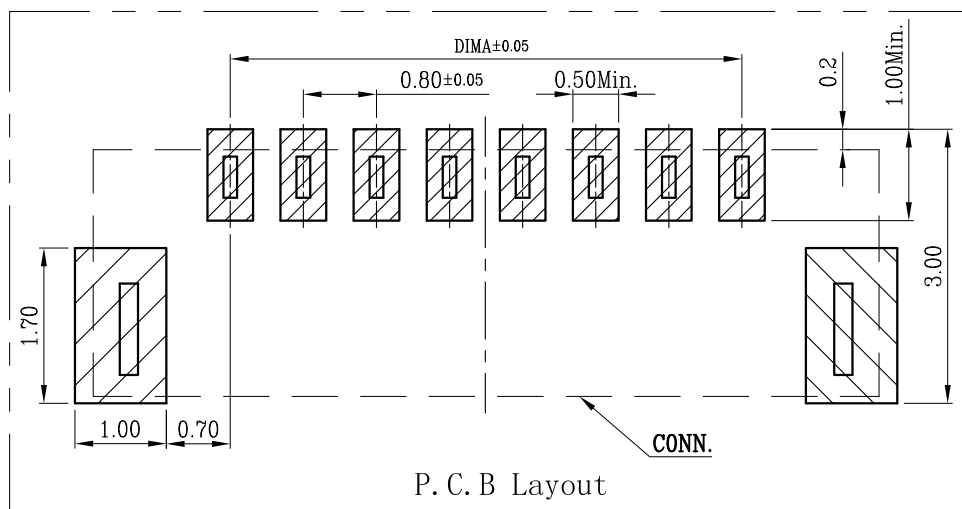
SECTION A-A



技术指标:

1. 塑件表面应光洁、无毛边、无明显收缩、缺陷、裂纹等现象。
2. 温度范围: $-25^{\circ}\text{C}\sim 85^{\circ}\text{C}$ 。
3. 额定电压: 30V, AC/DC。
4. 耐电压: 200V, AC/minute。
5. 接触电阻: $\leq 0.02\Omega$ 。
6. 绝缘电阻: $\geq 100\text{M}\Omega$ 。
7. 额定电流: 0.5A AC/DC。
8. 产品料号:

CKT	DIM A	DIM B	CKT	DIM A	DIM B
2	0.80	3.80	16	12.00	15.00
3	1.60	4.60	17	12.80	15.80
4	2.40	5.40	18	13.60	16.60
5	3.20	6.20	19	14.40	17.40
6	4.00	7.00	20	15.20	18.20
7	4.80	7.80	21	16.00	19.00
8	5.60	8.60	22	16.80	19.80
9	6.40	9.40	23	17.60	20.60
10	7.20	10.20	24	18.40	21.40
11	8.00	11.00	25	19.20	22.20
12	8.80	11.80	26	20.00	23.00
13	9.60	12.60	27	20.80	23.80
14	10.40	13.40	28	21.60	24.60
15	11.20	14.20			



一般公差 (TOLERANCE)

X. ±.50	.XX ±.10
.X ±.20	.XXX ±.05
ANGLES	±1°

东莞市高钺达电子科技有限公司

品名 (TITLE) 0.80 Pitch C型卧式WTB				制图 (DR)		
料号 (DWG.NO) 7400-XXA4-TG				校对 (CHKD)		
比例 (SCALE) 1:1				单位 (UNITS) mm	张数 (SHEET) 1 OF 1	SIZE A4
					REV A	

TITLE: 0.80MM PITCH C CONNECTOR SIDE TYPE HEADER

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1. 适用范围 Scope

本规范适用于 0.8 系列连接器, 包含了产品的性能、试验方法和检验要求。

This specification applies to 0.8 bar connector series, contains the product performance, test methods and inspection requirements.

2. 适用的标准 APPLICABLE STANDARDS

- 2.1 GB/T2421 电工电子产品环境试验 第一部分 总则
Testing method for Environmental of Electrical Connectors
Class 1:general Principles
- 2.2 GB/T2423 电工电子产品环境试验方法
Testing method for Environmental of Electrical Connectors
- 2.3 GB/T2424 电工电子产品环境试验导则
Testing method for Environmental of Electrical Connectors
- 2.4 GB/T5095 电子设备用机电元件基本试验规程及测量方法
Testing Procedure/method for components of elector equipment

3、USE CONDITION**使用条件**

- 3.1 Ambient temperature Range:-25℃~+85℃
环境温度: -25℃~+85℃
- 3.2 Applicable Wire Sizes: AWG # 28~ # 32
适用线规: AWG # 28~ # 32
- 3.3 Applicable PC board thickness:1.6mm
适用 PC 板厚度: 1.6mm

4、Appearance and Dimension**外观尺寸**

- 4.1 Appearance: Product surface without defect、dirt、crack、and mechanical damage,
Contact without rust plating not oxides and not peeled
产品表面不应有对制品有害的缺陷、污垢、裂痕及机械损伤; 接触件无锈蚀、镀层氧化、脱落等现象。
- 4.2 Dimension: According to drawings
外观尺寸: 依照附图
- 4.3 Exchangeable: Exchangeable with same specification products.
互换性: 相同规格应能互换

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4. 材质 THE MATERIAL

材 料

P/N 零件名称	Type 类 型	Material 材 料	Finish 表面处理	Explain 说 明
Terminal 端 子	Contact 插簧	Phosphor bronze 锡青铜 厚 0.12mm	Tin Plating:1.5~2.5 μ m 镀锡: 1.5~2.5 μ m	RoHs
Housing 孔 座	Plastic 塑壳	Nylon66 UL94V-0	Color: Beige 颜色: 米色	
Prick type Female 刺破型公头	Contact 插簧	Phosphor bronze 锡青铜 厚 0.10mm	Tin Plating:2~3 μ m 镀锡: 2~3 μ m	
	Plastic 塑壳	Nylon66 UL94V-0	Color: White 颜色: 白色	
Wafer(SMT) 卧贴 立贴	Plastic 胶芯	LCP UL94 V-0	Color: Nature 颜色: 自然色	
	Contact 插针	Phosphor bronze 锡青铜 厚 0.15mm	Tin Plating 2-3 μ m 镀锡: 2-3 μ m	

5. 标准额定值 RATINGS

项 目 ITEM	规 格 SPECIFICATIONS
额 定 电 压 Rated Voltage	30V DC
额 定 电 流 Rated current	0.5A AC /DC
温 度 范 围 Temperature Range	-25℃ ~ +85℃
湿 度 范 围 Humidity range	相对湿度 90%以下 Relative humidity 90% max
保存温度范围 Storage temperature range	-10℃ ~ +50℃
保存湿度范围 Storage humidity range	相对湿度 90%以下 Relative humidity 90% max

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6.电气特性 ELECTRICAL EFFICIENCY

No. 编号	项目 Item	试验方法 Test Method	性能要求 Requirement
6.1	接触电阻 Contact Resistance	测量时将连接器插合，两端施以最大测试电压 20mV 以及最大测试电流 10mA ,测量时减去导线电阻值。 (GB/T5095.2-2b) Mate connectors, load voltage: maximum voltage of 20mV and a maximum current OF 10mA are Applied to the Mate connector. (GB/T5095.2-2b)	(Initial)≤20 m Ω (Final)≤40 m Ω
6.2	绝缘电阻 Insulation Resistance	相邻接触体 1 分钟时间内施加 250V DC 电压进行测试， 测 量 期 间 的 绝 缘 阻 抗 值 。 (GB/T5095.2-3a) Mate connectors,Apply250V DC(rms)for 1minutebetween adjacent contacts to measure the insulation resistance. (GB/T5095.2-3a)	≥100MΩ
6.3	耐电压 Withstanding Voltage	在各相邻接触件间施加电压持续 1 分钟。 (GB/T5095.2-4a) Mate connectors, apply AC for 1 minute Between adjacent terminal or ground. (GB/T5095.2-4a)	(Initial):AC 200 V 初始:AC 200 V (Final):AC 100 V 试验后:AC 100 V 无击穿或者产生火花 No breakdown or flashover

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7.环境特性 ENVIRONMENTAL EFFICIENCY

No.[编号]	项目 Item	试验方法 Test Method	性能要求 Requirement	
7.1	耐热试验 Heat Resistance	将连接器放在温度为 $+85 \pm 2^{\circ}\text{C}$ 的环境中 96 小时,再置于室温下 1~2 小时。(GB/T5095.6-11j) Mated connector shall be placed in an environmental for 96 hours at $+85 \pm 2^{\circ}\text{C}$, Again in 1 ~ 2 hours at room temperature . (GB/T5095.6-11j)	外观 Appearance	目视外观无任何损坏异状 No Breakdown
			接触阻抗 Contact Resistance	$\leq 40 \text{ m}\Omega$
7.2	耐冷试验 Cold Resistance	将连接器放在温度为 -25 ± 3 的环境中 96 小时,再置于室温 1~2 小时。(GB/T5095.6-11i) Mated connector shall be placed in an environmental for 96 hours at $-25 \pm 3^{\circ}\text{C}$ Again in 1 ~ 2 hours at room temperature. (GB/T5095.6-11i)	外观 Appearance	目视外观无任何损坏异状 No Breakdown
			接触阻抗 Contact Resistance	$\leq 40 \text{ m}\Omega$
7.3	耐湿性试验 Humidity	把插合的连接器,温度 $40 \pm 2^{\circ}\text{C}$,相对湿度 90~95%的环境中,持续 96 小时。经试验后,连接器须于室温中放置 1 ~ 2 小时,再测定其值。(GB/T5095.6-11c) Mate connectors, $40 \pm 2^{\circ}\text{C}$ in temperature and 90~95%RH in an environmental for 96 hours. After testing connector shall be left alone for 1 to 2 hours in a room ambient.(GB/T5095.6-11c)	外观 Appearance	目视外观无任何损坏异状 No Breakdown
			绝缘电阻 Insulation Resistance	$\geq 100\text{M}\Omega$
			耐电压 Withstanding Voltage	100V AC/minute MIN

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No.[编号]	项目 Item	试验方法 Test Method	性能要求 Requirement
7.4	温度循环 Temperature Cycling	低温: $-25 \pm 3^{\circ}\text{C}$, 30 分钟, 放置转换时 10-15 分钟 高温: $+85 \pm 3^{\circ}\text{C}$, 30 分钟, 放置转换时 10-15 分钟 5 次循环后放置在正常环境中恢复 2 小时后进行测试. Low temperature: $-25 \pm 3^{\circ}\text{C}$, 30min, room temp 10-15min high temperature: $+85 \pm 3^{\circ}\text{C}$, 30min, room temp 10-15min After 5 cycles at the normal environment foresting after 2 hours. (GB/T5095.6-11d)	接触电阻 Contact Resistance $\leq 40 \text{ m}\Omega$
7.5	温升 Temperature	组合状态下的连接器, 通过最大容许电流测量导体温度上升值 Mate connector measure the temperature rise of contact when the maximum rated current is passed	$\Delta 30^{\circ}\text{C}$ Max.
7.6	盐雾试验 Salt spray	The combined state of connector as test samples, salt spray test according to the following specifications, test samples will be clean again with the water to dry naturally, measurement of contact resistance 连接状态下的连接器作为实验样品, 依照如下规格要求进行盐水喷雾实验, 实验后期将样品用清水冲干净自然晾干, 测量接触电阻值 Temperature: $35 \pm 3^{\circ}\text{C}$ Solution: $5 \pm 1\%$ Period: Stamping after tin plated for 8 hours Stamping before tin plated for 24 hours 温度: $35 \pm 3^{\circ}\text{C}$ 浓度: $5 \pm 1\%$ 周期: 先电镀后冲压 8小时 先冲压后电镀 24小时(接触区)	Appearance: No Damage (No erosion with material exposed. And with plating material, slight erosion on the cutting surface is acceptable) 外观: 无损伤(五金件应无露出底金属的严重锈蚀;使用预镀好的型材, 其落料面允许有不影响其性能的轻微腐蚀。) 接触电阻 Contact Resistance $\leq 40 \text{ m}\Omega$
7.7	可焊性试验 Solder ability	焊锡时间: 3 ± 0.5 秒 焊锡温度: $245 \pm 5^{\circ}\text{C}$ (GB/T5095.6-12a) Soldering time: 3 ± 0.5 S Solder Temperature: $245 \pm 5^{\circ}\text{C}$ (GB/T5095.6-12a)	焊锡面积 $\geq 95\%$ 95% min. of solder area

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No. [编号]	项目 Item	试验方法 Test Method	性能要求 Requirement
7.8	Resistance to soldering heat 耐焊接热	annual soldering tin process Soldering time: $3 \pm 0.5S$ Soldering pot: $305 \pm 5^{\circ}C$ 手工烙铁焊锡工艺 焊接时间: $3 \pm 0.5S$ 焊接温度: $305 \pm 5^{\circ}C$ Mode of operation: 操作方式: Position SMT type needle solder, conductor or a fixed piece at the end of the 0.5mm distance SMT 型针座焊锡位置, 距离导体或固定片末端 0.5mm Reflow soldering process Soldering time: 20 S Max Soldering pot: $255 \pm 5^{\circ}C$ 回流焊焊锡工艺 焊接时间: 20S 最大 焊接温度: $255 \pm 5^{\circ}C$ Please refer to the 9.1 solder reflow temperature curve 回流焊请参考 9.1 温度曲线图	Appearance: No damage 外观: 无损伤

8.机械特性 MECHANICAL EFFICIENCY

No. [编号]	项目 Item	试验方法 Test Method	性能要求 Requirement	
8.1	端子压接导线强度 Terminal crimping wire strength	端子所压接电线, 以每分钟 $25 \pm 3mm$ 速率之轴向拔出力 Terminal crimping wires, axial per minute to $25 \pm 3mm$ rate of the pullout force	AWG#28 wire AWG#28 导线	More than 8N $\geq 8N$
			AWG#30 wire AWG#30 导线	More than 4N $\geq 4N$
			AWG#32 wire AWG#32 导线	More than 3N $\geq 3N$

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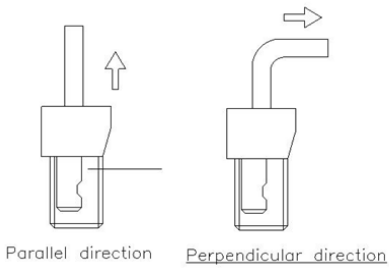
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No. [编号]	项目 Item	试验方法 Test Method	性能要求 Requirement
8.2	PIN 针固定力 Pin retention force	以每分钟 25 ± 3 mm 的速度从绝缘体底座上拔出引脚(GB/T5095.8-15 a) Push pin from insulator base at speed 25 ± 3 mm per minute (GB/T5095.8-15a)	$> 1.96\text{N}$ More than 1.96N
8.3	公头线束拉脱力 Female Wire pull out force	以每分钟 25 ± 3 mm 的速度推进 0.50 mm 位置测量拔出力 Measure force to insertion using 0.50 mm square pin at speed 25 ± 3 mm per minute  Parallel direction Perpendicular direction	平行方向 Parallel direction: More than 5.9N(AWG#32) 垂直方向 Perpendicular direction: More than 1.47 N (AWG#32)
8.4	插入力&拔出力 Mating & Un-mating Force	每分钟 25 ± 3 毫米的速度插入和取出连接器 Insert and withdraw connector at speed of 25 ± 3 mm per minute	见 8.7 表格
8.5	插簧与插针的插入力与固定力 insertion and retention force of the contact and pin	固定连接器和测力计, 在连接器轴线方向插入和拔出的速度不大于 25 mm/min. Axial Insert and withdraw force on the pin contact in the socket contact of 25mm per minute GB/T 5095.8 Method 16e	插入力 (Insertion) 19.6N Max
			固定力(Retention) 0.2N Min

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No. [编号]	项目 Item	试验方法 Test Method	性能要求 Requirement
8.6	机械寿命 Mechanical Life	1、连接器必须承受 30 次的插拔循环 2、测试速度: 25 ± 3 mm /分钟 1、Connectors shall be subjected to 30 cycle of Insertion and Withdrawal. 2、Speed:25± 3 mm/ minute (GB/T5095.5-9a)	接 触 电 阻 Contact Resistance ≤40 mΩ

8.7、插入力&拔出力Mating and Un-mating Force:

PIN No.	Mating(N max)	Un-mating(N min)
2	11.76	1.96
3	12.74	2.45
4	13.72	2.94
5	14.70	3.43
6	15.68	3.92
7	16.66	4.41
8	17.64	4.90
9	18.62	5.39
10	19.60	5.88
12	21.56	6.86
14	23.52	7.84
15	24.50	8.33
16	26.46	8.82
17	27.44	9.31
20	30.38	10.78

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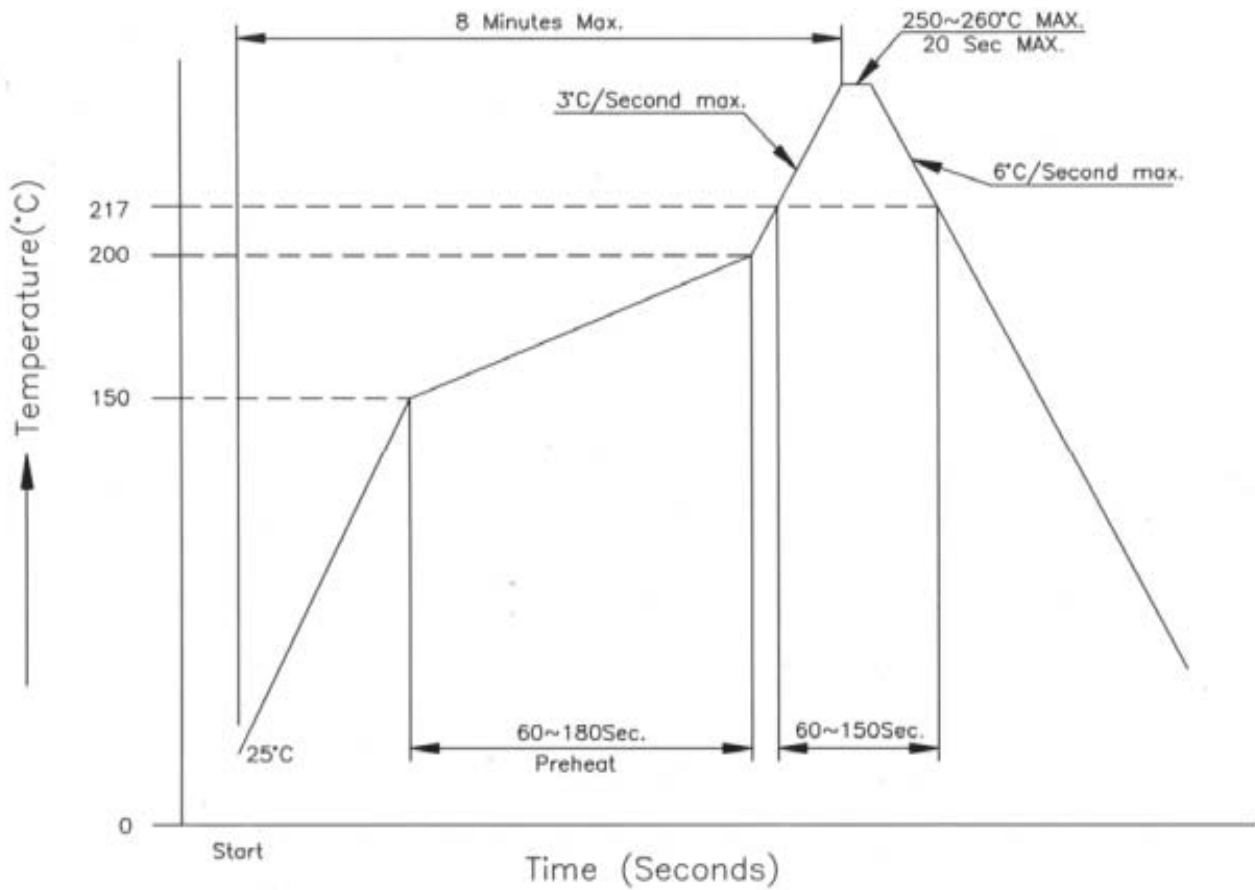
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9、The reflow temperature curve

回流焊温度曲线

9.1 SMT lead-free process temperature curve

SMT 无铅工艺温度曲线



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10、Packaging Transportation Storage

包装、运输、储存

10.1 Packaging

包装

- (1) Terminal within the Packaging for disc loading material Packaging plastic shell packaging for plastic has seat plates tubes mounted (paste) into the certificate indicate the product name specifications quantity production date and other information

端子内包装为盘装带料包装、胶壳内包装为塑料带, (贴) 装入合格证, 注明产品名称、规格型号、数量、出货日期等信息。

- (2) Exterior package is carton facing the packing list the packing list marked with product name specification model quantity date of dispatch

外包装为纸箱, 贴装箱单, 装箱单上注明产品名称、规格型号、数量、出货日期

- (3) The product in the box must not rock

产品在箱内不晃动

10.2 Transportation

运输

Any vehicle can be adopted for the transportation but moisture-proof and no mechanical damage Transport temperature to $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$

允许用任何方式运输, 但须避免雨雪直淋和阳光照射。不能有碰撞和挤压等机械损伤, 运输环境温度为 $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$

10.3 Storage

贮存

- (1) The connector of packing finished should be in the ambient temperature between -20°C to $+40^{\circ}\text{C}$ relative humidity $\leq 80\%$ to store in storehouse air and other corrosive gas in the ambient air

包装完毕的连接器应在环境温度为 $-20^{\circ}\text{C} \sim +40^{\circ}\text{C}$, 相对湿度 $\leq 80\%$, 周围空气中没有酸性, 碱性及其它腐蚀性气体的库房中贮存

- (2) Re-qualification test shall be conducted immediately while the storing duration exceed 6 mouths

贮存期为6个月, 超期6个月需重新检查