

SPECIFICATION FOR APPROVAL

承 認 书

Description : **Magnetic Buzzer**

Kingstate Part No. : **KCOG74T16**

Customer's Model No. : **337112**

Specification No. : **DRO-S681**

Number Of The Edition : **1.1**

CUSTOMER'S APPROVED SIGNATURE		



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Approved by	Checked by	Issued by
		MERRY 2026/03/18

RELEASE HISTORY 发行历史

Revision	Version	Date	Description	Remark
1	1.1	2026.03.18	初版发行	MERRY

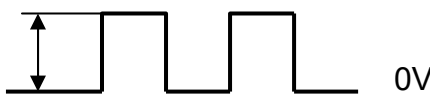
Preliminary

A. SCOPE 范畴

This specification applies magnetic buzzer, **KCOG74T16**

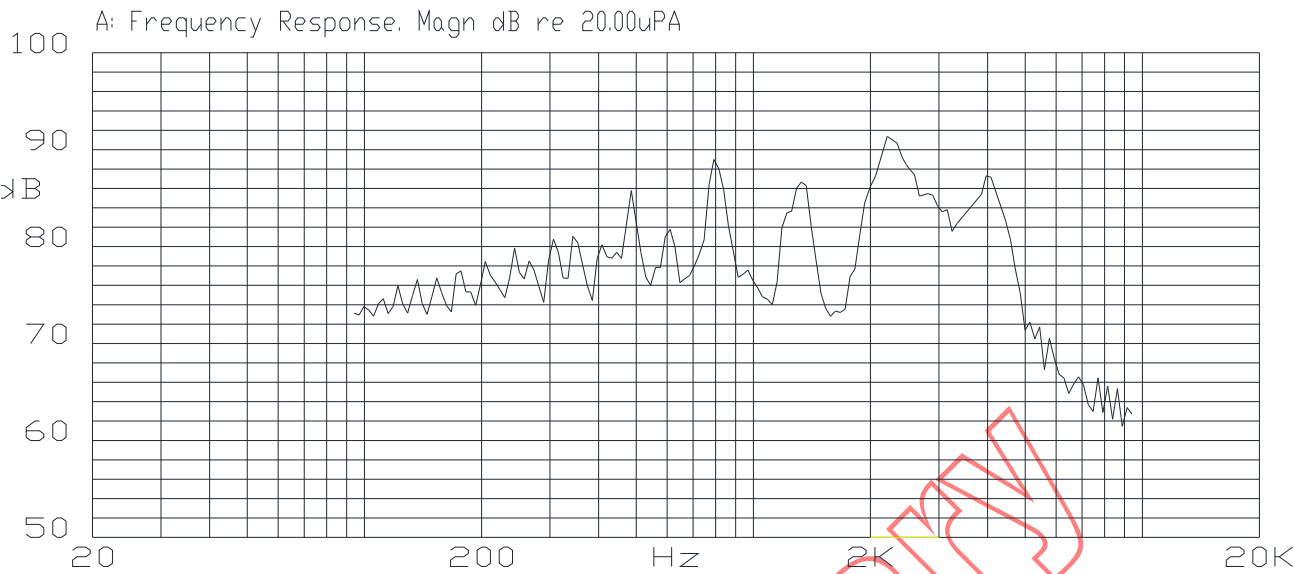
此规格书适用于电磁式蜂鸣器, **KCOG74T16**

B. SPECIFICATION 规格

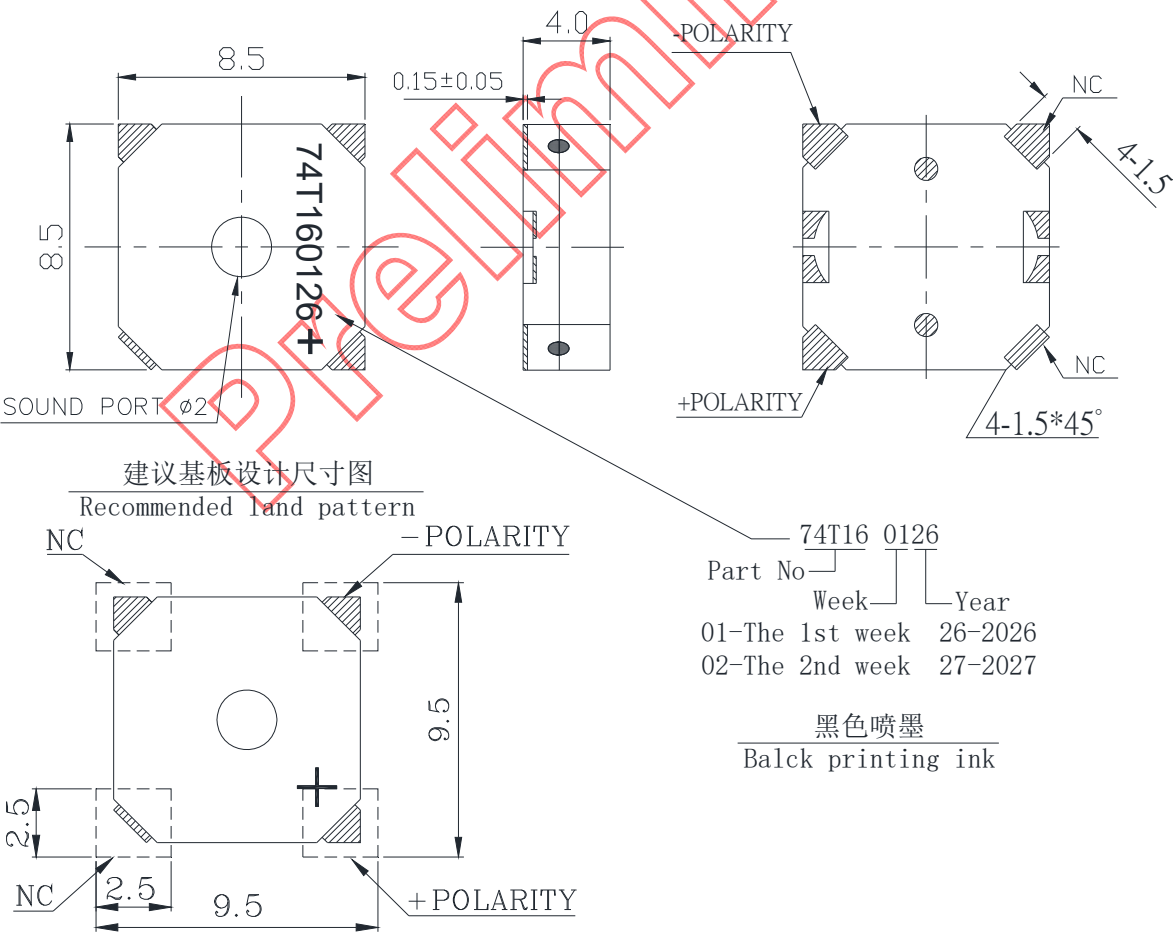
No.	Item	Unit	Specification	Condition
1	Rated Voltage 额定电压	Vo-p	3.6	
2	Operating Volt. 操作电压	Vo-p	2.5~ 4.5	
3	Mean Current 平均耗电流	mA	Max. 100	Applying rated voltage,2350Hz square wave, 1/2duty 施以额定电压,2350Hz,方波, 50%负载
4	Coil Resistance 直流阻抗	Ω	16 $\pm$ 3	
5	Sound Output 输出音压	dB	Min.87	Distance at 10cm (A-weight). Applying rated voltage 2350Hz,square wave, 1/2duty 在 10 cm 处,施以额定电压,2350Hz,方波, 50%负载
6	Rated Frequency 额定频率	Hz	2350	
7	Operating Temp. 操作温度	$^{\circ}\text{C}$	-40 ~ +85	
8	Storage Temp. 储存温度	$^{\circ}\text{C}$	-40 ~ +85	
9	Dimension 尺寸	mm	L8.5 x W8.5 x H4.0	See attached drawing. 请参照外观尺寸图
10	Piece weight/Out Box weight 单重 / 箱重	gram	0.4/11000	
11	Material 材质		L.C.P (Black)	
12	Terminal 端子		SMD type (镀锡/Plating Sn)	See attached drawing. 请参照外观尺寸图
13	Environmental Protection Regulation 环保法规		RoHS2.0	
14	Storage life 保存期限	month	6	6 months preservation at room temp. (25 $\pm$ 3 $^{\circ}\text{C}$), Humidity40% 在室温下 25 $\pm$ 3 $^{\circ}\text{C}$,湿度 40%以下可保存 6 个月.
15	MSL 湿敏指数	Class	4	Less than or equal to 30 $^{\circ}\text{C}$ /60% RH,72 hours of floor life 小于或等于 30 $^{\circ}\text{C}$ /60% RH,72 小时车间寿命

C. TYPICAL FREQUENCY RESPONSE CURVE 频率响应曲线

For Reference Only 仅供参考

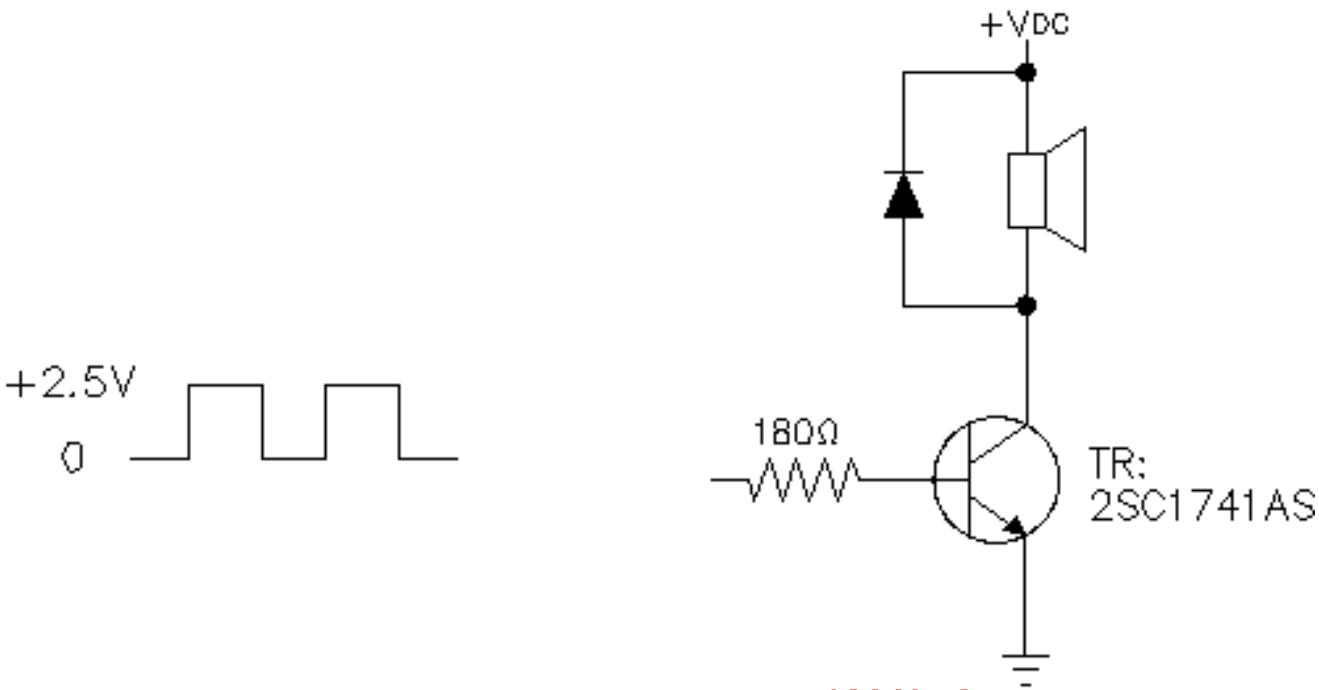


D. APPEARANCE DRAWING 外观尺寸图



Tol: ± 0.3
Unit: mm

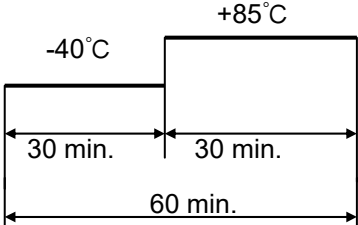
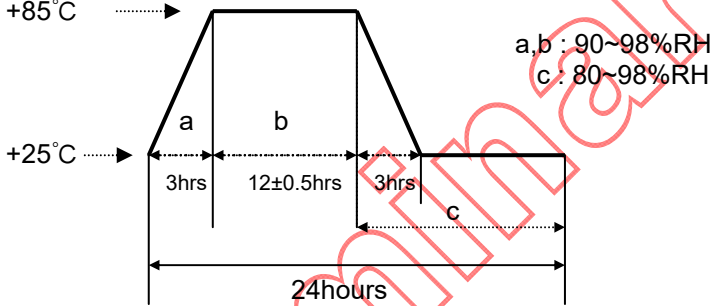
E. MEASUREMENT METHOD 测量方式



F. MECHANICAL CHARACTERISTICS 机械特性

No.	Item	Test condition	Evaluation standard
1	Solderability 焊锡附着性	Lead terminals are immersed in solder bath of +270±5°C for 3±1 second. 端子置于锡膏内, 锡膏温度: +270±5°C. 焊接时间: 3±1 秒.	95% surface of lead pads must be covered with fresh solder 锡膏须覆盖端子上方 95%
2	Soldering Heat Resistance 焊锡耐热性	The product is followed the reflow temperature curve to test its reflow thermostability. 产品依照回焊温度曲线测试回焊耐热性.	No interference in operation 操作无任何不良
3	Terminal Mechanical Strength 端子强度	Lead pads shall be soldered on the pc board, and the force 9.8N (1.0kg) shall be applied behind the part for 10 seconds. 将端子焊在 PC 板上后, 对单体施以 9.8N(1.0kg)拉力 10 秒.	No damage and cutting off 端子不松动, 不脱落.
4	Vibration 振动测试	Buzzer shall be measured after being applied vibration of amplitude of 1.5mm with 10 to 55hz band of vibration frequency to each of 3 per-pendicular directions for 2 hours. 振动周波数 10~55HZ、全振幅 1.5mm 于 X.Y.Z 3 个方向, 各 2 小时.	After the test the part shall meet specifications with-out any damage in appearance and the SPL should be in ±10dB compared with initial one.
5	Drop test 落下测试	The part only shall be dropped from a height of 75cm onto a 40mm thick wooden board 3 times in 3 axes (X.Y.Z). (a total of 9 times). 单体从 75 公分高处, X.Y.Z.3 个方向, 各 3 回, 落于 40mm 厚木板上.	经测试后, 单体除音压外, 外观及电气特性须符合规格. 输出音压变化量须±10dB 内.

G. ENVIRONMENT TEST 环境测试

No.	Item	Test condition	Evaluation standard
1	High temp. test 高温测试	After being placed in a chamber at +85°C for 96 hours. 置于+85°C环境中 96 小时	After the test the part shall meet specifications with-out any degradation in appearance and performance except SPL. after 4 hours at +25°C. the SPL should be in $\pm 10\text{dB}$ compared with initial one. 经测试后, 静置于+25°C (室温) 环境中 4 小时后, 单体除音压外, 外观及电气特性须符合规格. 输出音压变化量须在$\pm 10\text{dB}$ 内.
2	Low temp. test 低温测试	After being placed in a chamber at -40°C for 96 hours. 置于-40°C环境中 96 小时	
3	Thermal Shock 热冲击试验	The part shall be subjected to 10 cycles. One cycle shall consist of; 对单体施以热冲击试验 10 次循环,其循环内容如图示 	
4	Temp./ Humidity Cycle 温度/湿度循环测试	The part shall be subjected to 10 cycles. One cycle shall be 24 hours and consist of; 单体承受温度/湿度循环测试 10 次.其循环内容如图示 	

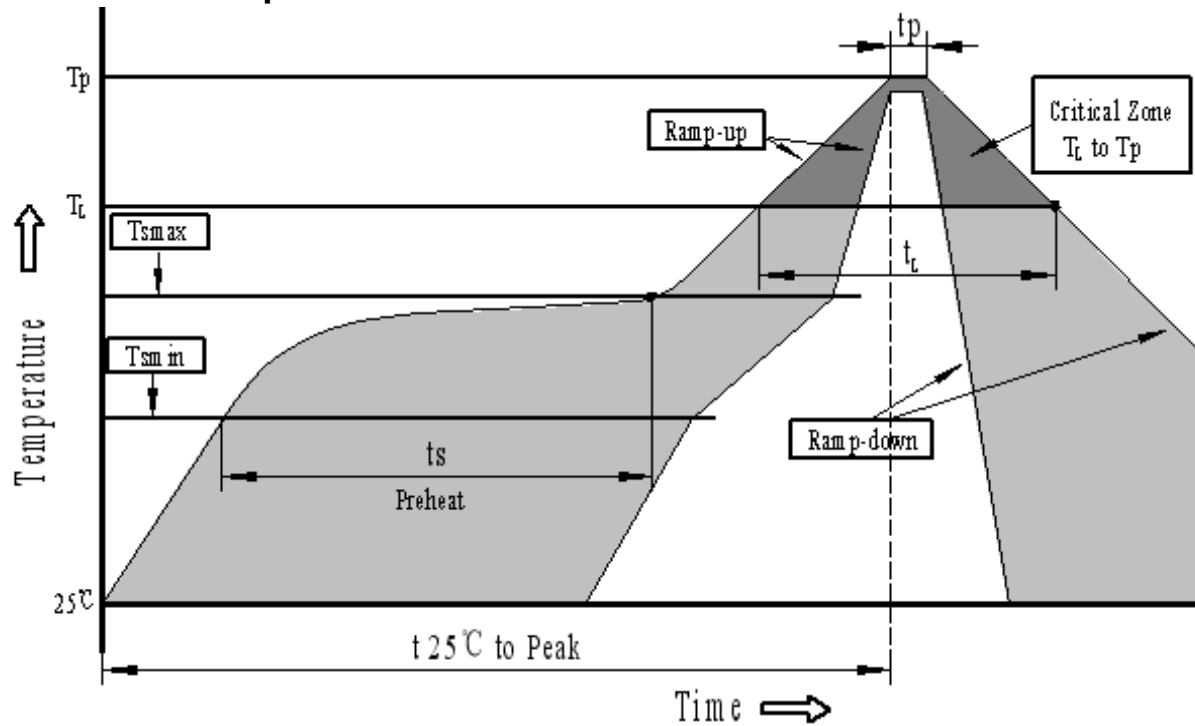
H. RELIABILITY TEST 信赖性测试

No.	Item	Test condition	Evaluation standard
1	Operating life test 寿命测试	1.Continuous life test 高温寿命测试(连续) The part shall be subjected to 72 hours at +70°C with rated voltage and rated frequency applied. 在+70°C环境下, 以额定电压/额定频率, 连续操作 72 小时. 2.Intermittent life test 室温寿命测试(间歇) A duty cycle of 1 minute on, 1 minutes off, a minimum of 10000 times at room temp.(+25±10°C) with rated voltage and rated frequency applied. 在室温下(+25±10°C), 以额定电压/额定频率操作, 通电 1 分钟/断电 1 分钟,测试 10000 次循环.	After the test the part shall meet specifications with-out any degradation in appearance and performance except SPL. after 4 hours at +25°C. the SPL should be in $\pm 10\text{dB}$ compared with initial one. 经测试后, 静置于+25°C (室温) 环境中 4 小时后, 单体除音压外,外观及电气特性须符合规格. 输出音压变化量须在$\pm 10\text{dB}$ 内.

TEST CONDITION.

Standard Test Condition	:	a) Temperature : +5 ~ +35°C	b) Humidity : 45-85%	c) Pressure : 860-1060mbar
一般测试条件	:	a) 温度 : +5 ~ +35°C	b) 湿度 : 45-85%	c) 气压 : 860-1060mbar
Judgment Test Condition	:	a) Temperature : +25 ± 2°C	b) Humidity : 60-70%	c) Pressure : 860-1060mbar
争议时测试条件	:	a) 温度 : +25 ± 2°C	b) 湿度 : 60-70%	c) 气压 : 860-1060mbar

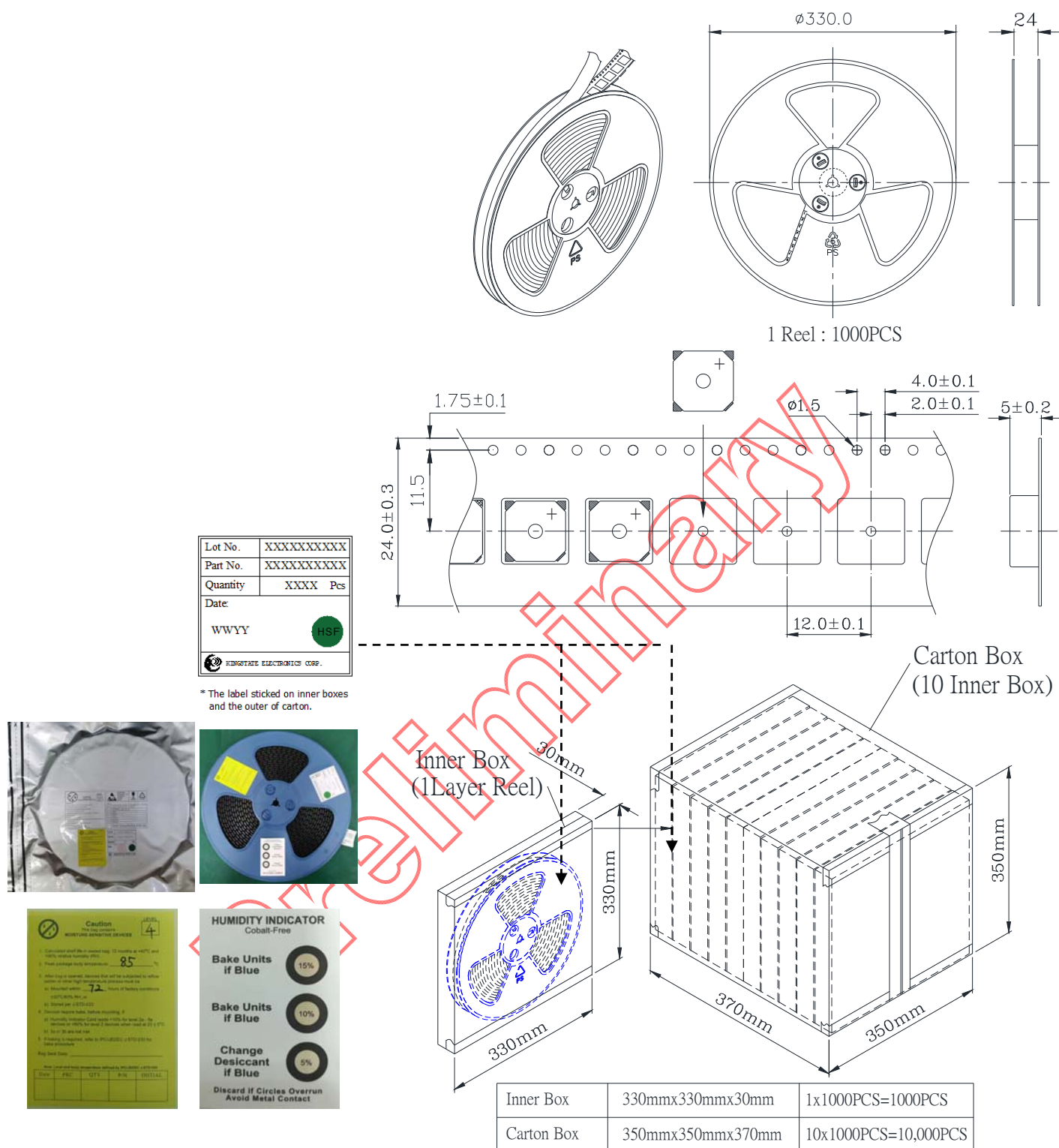
I. Recommended Temperature Profile For Reflow Oven 建议回焊炉温度曲线



Profile Feature	Assembly
Average ramp-up rate(T_L to T_p)	3°C/second max.
Preheat	
-Temperature Min. (T_{smin})	150°C
-Temperature Min. (T_{smax})	200°C
-Temperature Min. (t_s)	60~120 seconds
T_{smax} to T_L	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
- Temperature (T_L)	217°C
-Time (T_L)	60~120 seconds
Peak temperature (T_p)	260°C +0/-5
Time within 5°C of actual Peak temperature (t_p)	7 seconds max.
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	7 minutes max.

*Reflow can't over 1 time. 回流焊次数不超过 1 次.

J. PACKING STANDARD 包装规格



包装要求:

1. 产品装袋前干燥处理
2. 防潮防静电真空包装袋 (MBB) (真空包装)
3. 包盘: 黄色 MSD 标贴(符合 MSL-4) / HIC 卡/出货标签/干燥剂
4. MBB 袋: 黄色 MSD 标贴(符合 MSL-4) / 出货标签
5. 内箱: 出货标签
6. 外箱: 出货标签
7. 包装规范需符合 J-STD-033 国际标准定义要求