



深圳市航昱微科技有限公司  
SHENZHEN BLUESKY TECHNOLOGY CO.,LTD.

SPECIFICATION FOR APPROVAL

承认书

Spec. No. : HYP4032

Issued Date: 2023-3-17

CUSTOMER:

客户

PART NAME:

SMD Plastic PTC Thermistor

名称

SMD 塑封 PTC 热敏电阻器

APPLICATION:

OVER CURRENT PROTECTION

用途

过流保护用

PART NO. :

料号

HYP4032-85B50RM

CUSTOMER PART NO. :

客户料号

UL FILE NO:

UL 证书号

FOR CUSTOMER APPROVAL

客户承认栏

公司地址：深圳市福田区深南中路 3027 号嘉汇新城汇商中心 2921 室

SHENZHEN BLUESKY TECHNOLOGY CO.,LTD.

<http://www.hywsmd.com/>

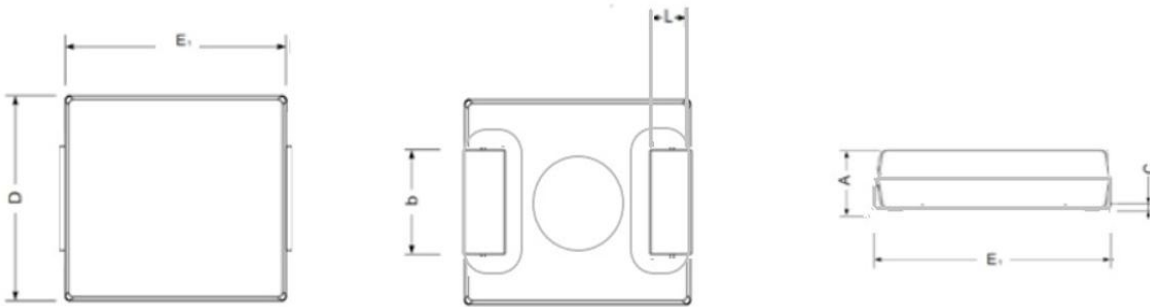
Model No.: HYP12A-50RM030 Part No.: HYP4032-85B50RM	PTC THERMISTOR <b>50 Ω /30mA</b>	Rev No.: 0/A (2023-03-17) 版本: A0
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**1. Appearance**

1-1. Marking 标志

4032 50R  
2308

1-2. Dimensional Drawing (mm) 尺寸



UNIT		E	D	A	b	L	C
mm	max	10.8	8.6	4.5	3.8	1.8	0.20
	min	9.8	7.8	3.5	2.8	1.0	0.12
mil	max	425	339	177	150	71	7.9
	min	385	307	138	110	39	4.7

**2. Part numbering**

2-1. Model No. 型号

HYP12A	50R		M		030	
	电阻值 (Ω)		电阻值允差		不动作电流(mA)	
航昱微 PTC 热敏电阻器	6R8	6.8	M	±20%	003	3
	50R	50	N	±30%	030	30
	101	100	X	±50%	120	120
	152	1500				

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2-2. Part No.: 物料代码									
HYP-	4032		50R		M		85		
航昱微正 温度系数 热敏电阻 器系列	产品尺寸		零功率 电阻值		电阻值允 差		居里温度 (°C)		
	芯片 直径	成品 代码							
	5	3225	50 R	50	M	±20%	85	85	
	7	4032	101	100	N	±30%	115	115	
			102	1000	X	特殊			
3. ELECTRICAL CHARACTERISTICS 电气性能									
Item 指标项目		Specification 技术要求				Test Conditions & Methods 测试条件/方法			
3-1. Rated Zero-power Resistance 额定零功率电阻 (R <sub>N</sub> )		50±20%				Ambient temp. range 环境温度 : 25°C ±2°C Testing voltage 测试电压 : 1.5V <sub>DC</sub>			
3-2. Curie Temperature 居里温度 (T <sub>C</sub> ) (For information only)		85°C ±7°C				The resistance at T <sub>C</sub> is twice of R <sub>N</sub> 电阻为零功率电阻的 2 倍时所对应的温度为 T <sub>C</sub> .			
3-3. Non-operating Current 不动作电流 (I <sub>N</sub> )		60°C ±2°C		30mA		Ambient temp. Range 环境温度: 60°C/85°C ±2°C In static air 静止空气中 Voltage of power supply 电源电压: 220V <sub>rms</sub> . Hold current 电流: I <sub>N</sub> Energized time 持续时间: 60min, Resistance (R <sub>N</sub> ') shall be measured			
		*85°C ±2°C		18mA					
		ΔR/R <sub>N</sub> ≤50% (ΔR =  R <sub>N</sub> -R <sub>N</sub> ' )							
3-4. Over-Vol. Withstanding 耐电压能力 (U <sub>b</sub> )		420V <sub>AC</sub> ΔR/R <sub>N</sub> ≤20% (ΔR =  R <sub>N</sub> -R <sub>N</sub> ' )				T <sub>A</sub> : 25°C ±2°C Initial Current 起始电流 I: 1.2A Test vol. 测试电压: 220V <sub>rms</sub> / 10s→420 V <sub>rms</sub> / 10s			
3-5. Trip Current 动作电流 (I <sub>sw</sub> )		150mA ΔR/R <sub>N</sub> ≥50% (ΔR =  R <sub>N</sub> -R <sub>N</sub> ' )				Ambient temp. Range 环境温度: 25°C ±2°C In static air 静止空气中 Voltage of power supply 电源电压: 220V <sub>rms</sub> . Hold current 电流: 150mA Energized time 持续时间: 5min, Resistance (R <sub>N</sub> ') shall be measured			
3-6. Flash Voltage 冲击电压		380V <sub>rms</sub> ΔR/R <sub>N</sub> ≤50% (ΔR =  R <sub>N</sub> -R <sub>N</sub> ' )				T <sub>A</sub> : 25±2°C 串 TVS (6.8V) 管,通 380V <sub>rms</sub> Energized time 通电时间: 10min ON, 10min OFF Testing times 测试次数: 5times			

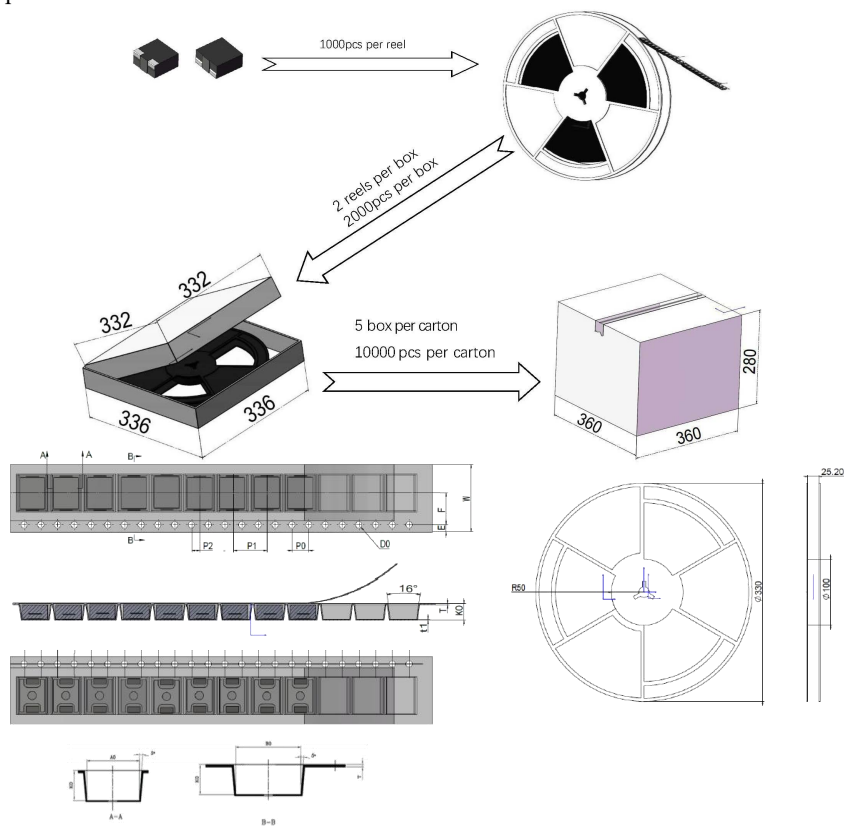
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4. INSPECTION 交收检验

Sampling with 抽样方法按 IEC410 / DIN ISO 2859-1 (GB/T2828.1-2003); Testing with 试验方法按 IEC60738-1 / QC 440000 (GB7153-2002), Spec.No.:HYPS-190704

Item 检验项目	IL	AQL	Ac	Item 检验项目	IL	AQL	Ac
4-1. Appearance 外观	II	1.5		4-4. Over Voltage Withstanding 耐电压能力		5PCS/Lot	0
4-2. Rated Zero-power Resistance 额定零功率电阻 (RN)	II	0.65		4-5. Solder-ability 可焊性		5PCS/Lot	0
4-3. Non-operating Current 不动作电流(IN)		5PCS/Lot	0	4-6. Flash Voltage 冲击电压		5PCS/Lot	0

5.The method of packaging and dimension.(Dimension in mm) 包装与编带尺寸



Symbol	Spec	Symbol	Spec	Symbol	Spec
W	24.0±0.30	P0	4.0±0.10	A0	9.05±0.10
E	1.75±0.10	P1	12.0±0.10	B0	9.15±0.10
F	11.5±0.15	P2	2.0±0.15	K0	4.40±0.10
D0	1.55±0.10	T	0.35±0.05	t1	0.08以上

6.RATINGS 额定参数

6-1. Rated Operating Voltage 额定工作电压  $U_R$ : 220V<sub>rms</sub>

6-2. Max Working Voltage 最大工作电压  $U_{max}$ : 265 V<sub>rms</sub>

6-3 Operating Temperature -40°C ~ +85°C (U=U<sub>max</sub>)

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<p>7. 热风回流焊曲线</p>		
<p>8. STORAGE CONDITIONS 贮存环境条件</p> <p>8-1. Temperature 温度: <math>-40^{\circ}\text{C} \sim +50^{\circ}\text{C}</math></p> <p>8-2. Humidity 湿度: <math>\leq 70\% \text{RH}</math></p> <p>8-3. Term 期限: <math>\leq 12</math> months (Cu) (First-in/ First-out 先进先出)          注: 超期产品检验可焊性没问题可以继续使用; 有问题返工滚镀锡, 检测其它性能问题可以继续使用。</p> <p>8-4. Place 地点:          Do not exposing PTC components to the following conditions; otherwise, it may result in deterioration of characteristics.          不要暴露在下列环境条件下, 否则将导致性能衰退或参数飘移:</p> <ol style="list-style-type: none"> <li>1) Corrosive gas or deoxidizing gas 腐蚀性或易氧化气体</li> <li>2) Flammable and explosive gases 易燃易爆气体</li> <li>3) Oil, water and chemical liquid 油、水和化学溶液</li> </ol>		
<p>9. WARNING 注意、警告 </p> <p>Do not apply the components under the following conditions; otherwise, it may result in deterioration of characteristics, destruction of product or in the worst case, to catching fire.          请不要在下列条件下使用本元件, 否则将可能导致产品性能衰退或产品损毁, 甚至引发火灾:</p> <ol style="list-style-type: none"> <li>1) Exceeding <math>I_{\text{max}}</math> or <math>V_{\text{max}}</math>. 超过最大工作电流或工作电压</li> <li>2) Exceeding rated temperature range. 超过许可工作温度范围</li> <li>3) Inferior thermal dissipation. (Due to badly inferior thermal dissipation, some part of the components will become overheated and then be damaged.)          散热不良 (由于散热不良, 本元件可能因部分过热而导致破坏)</li> </ol>		

## Revision History 修订履历表

