



东莞市铭标电子科技有限公司
MINGBIAO ELECTRONICS CO., LTD

承 认 书

APPROVE SHEET

客户名称 Customer: _____

品 名 Part name: Toggle switch

型 号 Part Number: QHCM03

Design/Date	Check/Date	Review/Date	Approval/Date

贵公司承认印 Approval signatures

Approval/Date	Remark

Send us a copy of reference , thank you! 日期 Date:

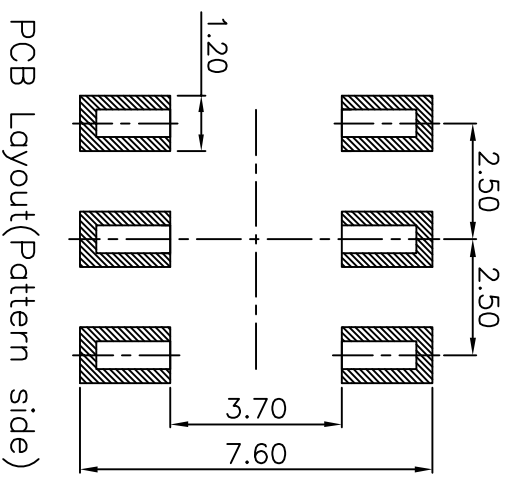
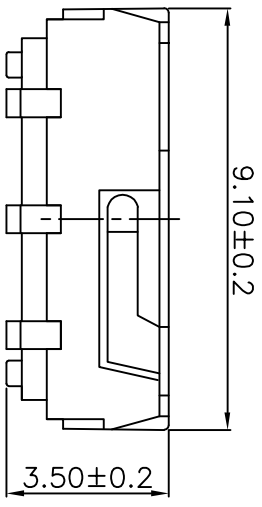
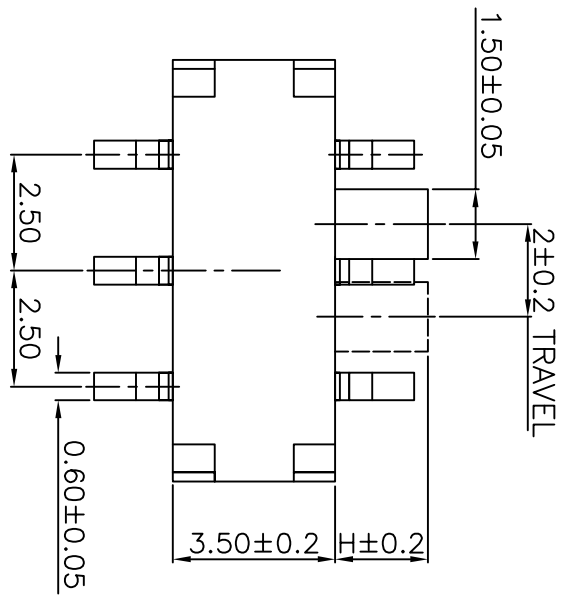
地址: 广东省东莞市长安镇沙头社区猫山东路 101 号

Add: Dongguan City, Guangdong Province, Chang'an Town, Sand head community The cat shandong road, No. 101

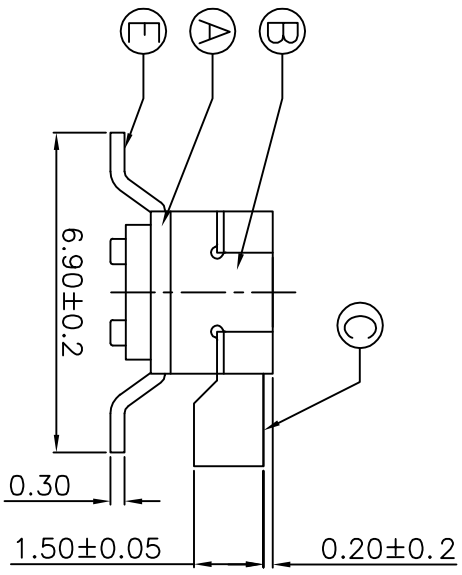
Ntel: 0769-81581583

RoHS

H
2.0
3.0
4.0



PCB Layout (Pattern side)



第三视角
FIRST VIEW

东莞市铭标电子科技有限公司
Ming Mark Electronic Technology Co., Ltd.



NO.	Name	Number	Qty	Material	Remarks
⑤	Terminal	/	6	Brass	Silver
④	Contact reed	/	2	Beryllium copper	Silver covere
③	Handle	/	1	PA46	Black
②	Cover	/	1	SUS	Silver
①	Base	/	1	9T	Black

拨动开关

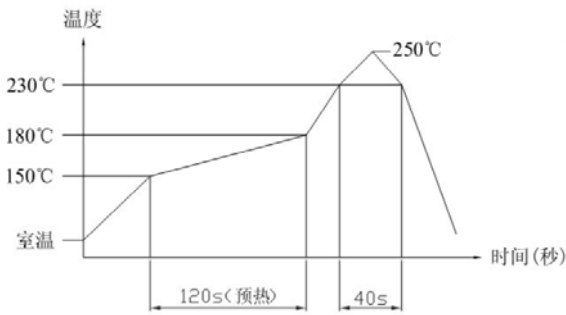
名称/NAME:
型号/MODEL:

QHCM03

标记 SIGN	处数 FREQUENCY	更改文件号 REVISION	签名 APPROVED	日期 DATE	比例 SCALE	单位 UNIT	重量 WEIGHT
设计 DESIGN		韦标骥			mm		
审核 CHECKED		朱明华					
批准 APPROVED							

一般公差 GENERAL TOLERANCE	
0.5~2	±0.10
2~5	±0.15
5~10	±0.20
角度 ANGLE	±0.5°

		文件编号	
		发布日期	2017年2月15日
SPECIFICATION 规格书		第2版	1of2
产品名称:拨动开关		产品型号: QHCM03	
1:GENERAL SPECIFICATION 基本事项			
1.1	RATING (额定值): DC 12V 100mA		
1.2	PRACTICAL TEMPERATURE RANEG: - 10℃~+50℃. 使用温度范围: 在-10℃~+50℃温度内使用.		
1.3	STANDARD ATMOSPHEIC CONDITIONS : UNLESS OTHERWISE SPECIFIED. THE STANDARD RANGE OF ATMOSPHERIC CONDITIONS FOR MAKING MEASUREMENTS AND TESTS ARE AS FOLLOWS: (1) AMBIENT TEMPERATURE : 5℃ TO 35℃; (2) RELATIVE HUMIDITY : 45% TO 85%; (3) AIR PRESSURE : 86Kpa TO 106Kpa. 测试标准状态: 在沒有指定的情況下测试温度, 湿度, 气压如下: (1)温度为5~35℃; (2)湿度为45~85%; (3) 气压为86Kpa~106Kpa.		
2. ELECTRICAL CHARACTERISTICS (电气性能规格):			
ITEM	项目	TEST CONDITIONS 测试条件	PERFORMANCE (DATA) 规格(数据)
2.1	CONTACT RESISTANCE 接触电阻	MEASURED AT 1KHz SMALL CURRENT(100 mA OR LESS) 在1KHz微小电流(100mA 以下)测试.	100mΩ MAX. 100毫欧以下.
2.2	INSULATION RESISTANCE 绝缘电阻	APPLY A VOLTAGE OF 100V DC FOR 1 MIN. THE FOLLOWING CONTACE TEST METHOD: (1) BETWEEN BODY AND CONDUCTOR. (2) BETWEEN CONDUCTORS NOT TO BE CONTAC. 输入100V DC电压1分钟, 按以下接触方法测试: (1) 接触端子之间. (2) 胶座体和排脚之间.	50MΩ MIN. 50兆欧以上.
2.3	IELECTRIC STRENGTH 耐电压	AC 250V(50-60Hz) FOR 1 MIN TRIP CURRENT:0.5mA THE FOLLOWING CONTACE TEST METHOD: (1) BETWEEN TERMINALS. (2) BETWEEN INDIVIDUAL TERMINALS AND FRAME. 输入AC250V(50-60Hz) 电压, 1分钟感度电流为0.5mA, 接触测试方法如下: (1) 接触端子之间. (2) 外壳体和排脚之间.	WITHOUT DAMAGE TO PARTS ARCING OR BREAKDOWN ETC. 没有绝缘破坏等异常
3 .MECHANICAL CHARACTERISTICS (机械性能规格)			
ITEM	项目	TEST CONDITIONS 测试条件	PERFORMANCE (DATA) 规格(数据)
3.1	OPERATION FORCE 动作力	LATERAL PUSH (侧向推动)	PUSH FORCE (按压力度): 200gf±80gf
3.2	TRAVEL TO CLOSURE 动作行程	IN THE HORIZONTAL DIRECTION SWITCH HANDLE OPRATION, WITH AN EQUAL TO 2TIMES THE THRUST OF THE SWITSH FORM ONE POSITION TO THE NEXT GEAR, MOVING DISTANCE MEASURING HANDLE. 在开关推柄运行的水平方向, 以一个等于2倍推力使开关从 一个档位运动到下一档位, 测量推柄的移动距离.	 2mm±0.2mm
3.3	STEM STRENGTH 操作部(柄)强度	AND ALONG THE RUNNING DIRECTION AT APEX HANDLE(500gf)ON THESTRENGTH TEST, TIME IS 30 SECONDS. 在推柄的先端沿运行方向加上(500gf)力度测试, 时间为 30秒.	外观无异常, 满足于机械, 电气性能
PREPARED制定: 韦标骥		CHECKED 核对: 韦标骥	PPROVED 审批: 朱明华

		文件编号	
		发布日期	2017年2月15日
SPECIFICATION 规格书		第2版	2of2
产品名称: 拨动开关		产品型号: QHCM03	
4. DURABILITY(耐久性):			
ITEM	项目	TEST CONDITIONS 测试条件	PERFORMANCE (DATA) 规格(数据)
4.1	LIFE TEST 寿命试验	AN ACTUATOR SHALL BE WITH A THRUST OF NO GREAT THAN 1 TIMES SWITH POWER TO 7000-10000 CYCLES AT A SPEED OF 30 CYCLES FOR 1 MIN. 操作者以每分钟30次的频率, 施加不大于开关1倍的推力做7000-10000次无负荷测试.	1) CONTACT RESISTANCE SHALL BE 500mΩ MAX. 2) LIFETIME: 7000-10000次 1) 接触电阻不超于500mΩ. 2) 寿命: 7000-10000次
4.2	HEAT TEST 耐热实验	THE SWITCH SHALL BE STORED AT A TEMPERATURE OF 85±2°C FOR 96 HOURS. AND THEN IT SHALL BE SUBJECTED TO THE CONTROLLED RECOVERY CONDITIONS FOR 1 HOUR AFTER WHICH MEASUREMENT SHALL BE MADE. 放置在温度85±2°C中96小时后, 再放置正常室温中1小时后测定.	THERE SHALL BE NO DAMAGE ONAPPEARANCE. MECHANICAL AND ELECTRICAL CHARACTERISTICS SHALL BE SATISFIED. 外观无异常, 满足于机械, 电气性能
4.3	COLD TEST 耐冷实验	THE SWITCH SHALL BE STORED AT A TEMPERATURE OF -25±3°C FOR 96 HOURS. AND THEN IT SHALL BE SUBJECTED TO THE CONTROLLED RECOVERY CONDITIONS FOR 1 HOUR AFTER WHICH MEASUREMENT SHALL BE MADE. 放置在温度-25±3°C中96小时后, 再放置正常室温中1小时后测定.	
4.4	HUMIDITY TEST 潮湿实验	THE SWITCH SHALL BE STORED AT A TEMPERATURE OF 40±2°C AND A HUMIDITY OF 80% TO 85% FOR 96 Hr. THEN THE JACK SHALL BE MAINTAINED AT STANDARD ATMOSPHERIC CONDITION FOR 1 Hr FOR OTHER PROCEDURES. 放置在40±2°C相对湿度为80~85%环境中96小时后, 再将样品放在正常室温中1小时后测定.	
4.5	SOLDERING CONDITIONS 焊锡条件	HAND SOLDERING 手焊: 1) DIVCE 工具: SOLDER IRON 电烙铁. A. 350°C MAX. , 2 sec Max B. 270°C MAX. , 4 sec Max 2) REFLOW SOLDERING 回流焊: ≤250°C 	
PREPARED制定: 韦标骥		CHECKED 核对: 韦标骥	PPROVED 审批: 朱明华