

# 零件承认书

SPECIFICATION FOR APPROVAL

客户名称: \_\_\_\_\_  
 客户料号: \_\_\_\_\_  
 增益料号: HMS0603  
 规格描述: \_\_\_\_\_  
 日期: 2018/11/20  
 版本: A

增益签核:

制订	审核	核准
张翔	刘业明	柯文学

客户签核:

工程	审核	核准



东莞市增益实业有限公司

地址: 东莞市塘厦镇林村塘厦大道北552号

电话: 0769-87321000

传真: 0769-87891229

物料类型: 一体成型电感

日期: 2018/11/20

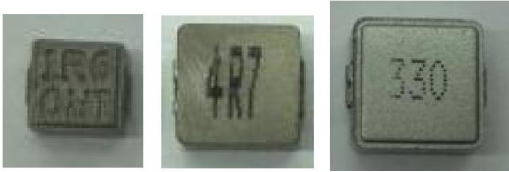
版本: A





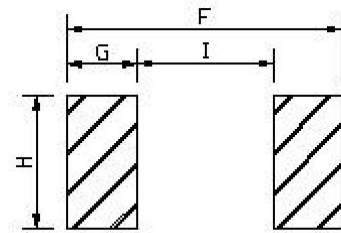
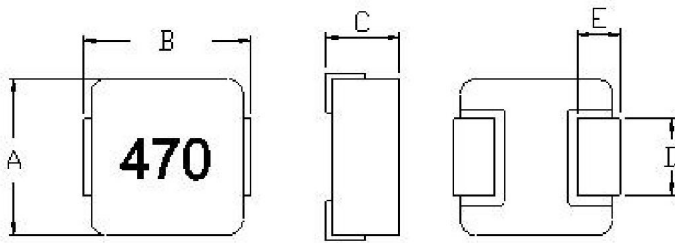
Type Name: HMS Series

Construction/磁气构造图



Dimensions/外形尺寸图(Unit:mm)

Land patterns/贴装尺寸



Shape and Size:(Dimensions are in mm)

Type Name /型名	A	B	C	D	E	F	G	H	I	QTY (MPQ) pcs/reel 最小包装数 (个/盘)
HMS0603	6.6±0.2	7.4MAX	3.0MAX	3.0±0.3	1.6±0.4	8.5REF	2.0REF	3.5REF	4.5REF	1000

Specifications/规格

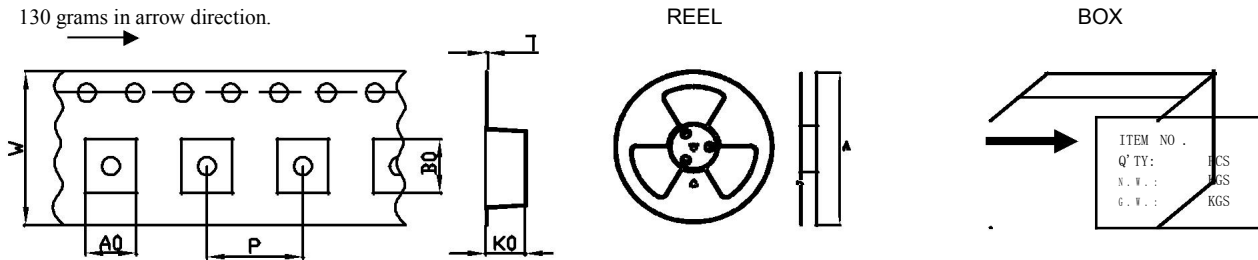
Type Name: HMS0603

Part No. /品名	Inductance/电感值 ( $\mu\text{H}$ )	Test Condition/测试条件	D. C. R. /直流电阻 ( $\text{m}\Omega$ ) MAX.	Saturation Current/饱和电流 (A) ※1	Heat Rating Current/温升电流 (A) ※2
HMS0603-0.33UH/M	0.33 ± 30%	100KHz	3.5	25.0	21.0
HMS0603-0.47UH/M	0.47 ± 30%	100KHz	4.1	20.0	18.0
HMS0603-0.68UH/M	0.68 ± 30%	100KHz	5.3	17.0	16.0
HMS0603-0.82UH/M	0.82 ± 30%	100KHz	6.0	16.0	14.0
HMS0603-1.0UH/M	1.0 ± 20%	100KHz	9.2	15.0	12.0
HMS0603-1.5UH/M	1.5 ± 20%	100KHz	12.1	14.0	10.0
HMS0603-2.2UH/M	2.2 ± 20%	100KHz	15.0	10.0	8.0
HMS0603-3.3UH/M	3.3 ± 20%	100KHz	22.0	9.5	6.5
HMS0603-4.7UH/M	4.7 ± 20%	100KHz	38.0	6.5	5.5
HMS0603-6.8UH/M	6.8 ± 20%	100KHz	50.0	6.0	4.5
HMS0603-8.2UH/M	8.2 ± 20%	100KHz	60.0	6.0	4.0
HMS0603-10UH/M	10 ± 20%	100KHz	68.0	5.5	3.5
HMS0603-15UH/M	15 ± 20%	100KHz	95.0	4.0	3.0
HMS0603-22UH/M	22 ± 20%	100KHz	135.0	3.0	2.5
HMS0603-33UH/M	33 ± 20%	100KHz	210.0	2.2	1.5
HMS0603-47UH/M	47 ± 20%	100KHz	320.0	1.0	0.6

※1 The saturation current when the inductance decreases to 75% of initial value. (Ta=25°C) ※2 The DC current at which the temperature rise is  $\Delta t=40^\circ\text{C}$ , whichever is smaller (Ta=20°C)

Packing: Dimensions for embossed tape and reel & catron packing with packed Qty/包装载带、胶盘和外箱包装数量

The force for tearing off cover tape is 10 to 130 grams in arrow direction.



Type	DIMENSIONS (mm) / 尺寸							QTY (PCS/REEL) 每卷产品数量
	A	W	P	A0	B0	K0	T	
HMS0603	330	16	12	7.80	7.80	3.2	0.40	1000

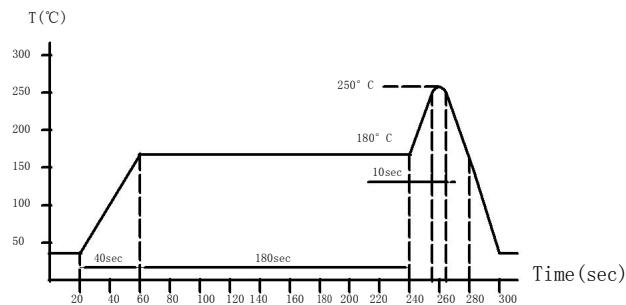


## General Characteristics

Operation Temperature /使用温度范围	-40~+105°C(Includes temperature when the coil is heated.)/-40~+105°C(包含线圈发热)
External Appearance/外观	On visual inspection, the coil has no external defects./目视检查时,外观没有明显的缺陷.
Terminal Strength/端子强度	After soldering between copper plate and electrode. sample is pushed in three directions of X,Y and Z with force of 5N for 10±5 seconds. the terminal should not peel off. /将线圈的端子焊接在基板上,分别在 X,Y,Z 3 个方向施加 5N,时间 10±5 秒,无电极剥离和断线.
Insulating Resistance /绝缘电阻	Over 100MΩ at 100V D.C. between coil and core./线圈和磁芯间加上 100V 直流电压,绝缘电阻 100MΩ以上.
Dielectric Strength/耐电压	No dielectric breakdown at 100V D.C. for 1 minute between coil and core. /线圈和磁芯间加上 100V 直流电压 1 分钟时间后,无绝缘破坏不良出现.
Temperature Characteristics /温度特性	Inductance coefficient(0~2,000)×10 <sup>-6</sup> /°C(-25~+85°C)/电感温度系数(0~2,000)×10 <sup>-6</sup> /°C(-25~+85°C)
Humidity Characteristics /耐湿度特性	Inductance deviation within ±10%,after 96 hours in 90~95% relative humidity at 40±2°C and 1 hour drying under normal condition./温度在 40±2°C,相对湿度在 90~95%条件下存放 96 小时后取出,用干布擦干.然后在常温常湿中放置 1 小时,电感变化率±10%以内.
Thermal shock test /冷热冲击特性	Inductance deviation within ±10%,after 20 cycles of +105°C for 30 minutes, -40°C for 30 minutes. Characteristics are measured after the ambient air exposure of 1 hour./-40°C放置 30 分钟后转换为+105°C放置 30 分钟,20 次循环,然后在常温常湿中放置 1 小时,电感变化率±10%以内.
High temperature storage test /高温保存测试	Inductance deviation within ±10%,after 96 hours in 105 °C ±2 °C characteristics are measured after ambient are exposure of 1 hour. / +105°C放置 96 小时,然后在常温常湿中放置 1 小时,电感变化率±10%以内.
Low temperature storage test /低温保存测试	Inductance deviation within ±10%,after 96 hours in -40 °C ±2 °C characteristics are measured after ambient are exposure of 1 hour. / -40°C放置 96 小时,然后在常温常湿中放置 1 小时,电感变化率±10%以内.

## Recommended Reflow Conditions (Lead-free)

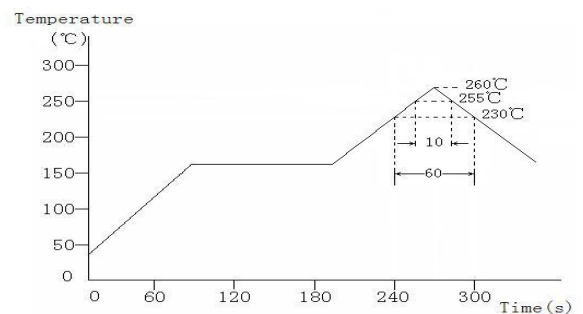
### /推荐回流焊条件(无铅)



The reflow condition recommended above is according to the machine used by our company. Big differences will arise as a result of the type of machine, reflow conditions, method, etc used. Hence, before setting up your reflow conditions, please confirm with the above./上面推荐的回流焊试验条件是根据本公司的回流焊设备测试结果得到.不同的试验设备、试验条件和试验方法及试验结果不同.因此回流焊试验条件的设定需要仔细地确认.

## Reflow Soldering Heat Endurance

### /回流焊耐热



No mechanical and electrical defects are found after testing based on the above profile and keeping under the conditions of room temperature and humidity for 2 hours./在该条件下进行回流焊,常温常湿条件下放置 2 个小时后,无机械,电气特性缺陷发生.

Twice reflow test is acceptable with the test interval remaining 1 hour under the normal conditions.

/在常温常湿条件下,间隔 1 小时可进行两次回流焊.

The reflow test profile may vary with the testing instruments.

/回流焊曲线图会因设备的不同有所差异.