

产品承认书

Specification For Approved

版本: REV.A00

客户名称/Customer name:

N/A

客户品名/Customer name:

N/A

客户型号/Customer Model number:

N/A

客户料号/Customer material number:

N/A

巨维品名/JW name:

Plastic inductors

巨维型号/JW Model number:

MRPE453232 Series

巨维料号/JW Material number:

N/A

巨维签署/JW Signed			客户承认/Customer Approval		
制定 Prepared By	审核 Checked By	批准 Approved By	确认 Confirm By	审核 Checked By	承认 Approved By
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2024.9.7	2024.9.7	2024.9.7			

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JS-RD-SPEC-001/A0

深圳市巨维科技有限公司
Shenzhen Ju Wei Technology Co., Ltd

客户名称 Customer	N/A	品名 Name	Plastic inductors	版本 Ver.	A00
客户型号 Model No.	N/A	料号 Material No.	N/A	日期 Date	2024.9.7
客户料号 Customer No.	N/A	型号 Model No.	MRPE453232 Series	发行号 Release No.	JS-S-24090707

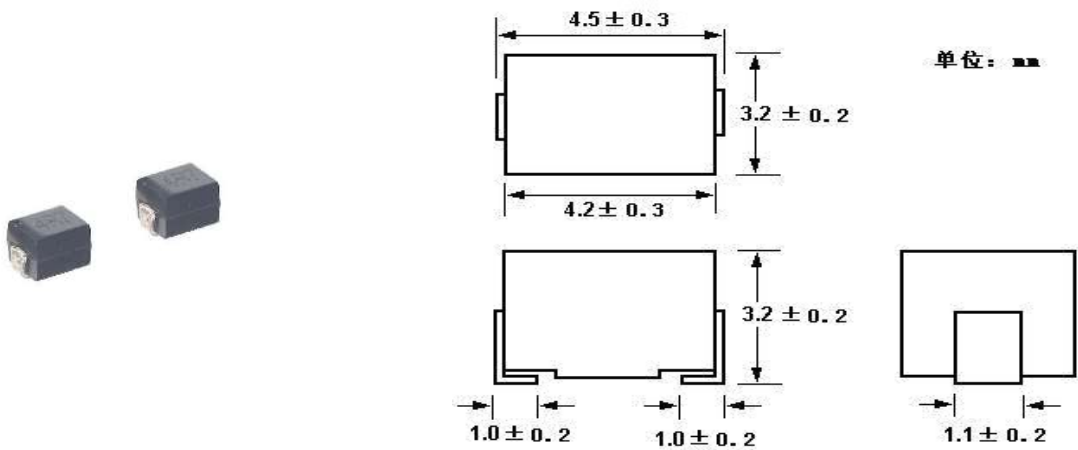
变更履历/Modify Record

版本 Ver.	变更内容/Change content	日期 Date	制定 Prepared By	审核 Checked By
A00	新发行/New release	2024.9.7	唐秀玲	王瑞琳

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1. 产品形状尺寸(单位:毫米)/Product Shape size(Unit:mm):



2. 品名型号命名指南/Nomenclature guidelines for product models:

J - MRPE 453232 A - 2R2 M - X
① ② ③ ④ ⑤ ⑥ ⑦

①	公司名称代码/Company name code
J	巨晟电子代码/JUSHENG electronic code
②	产品系列代码/Product family code
MRPE	塑封电感/Plastic inductors
③	产品外形尺寸(毫米)/Product dimension(mm)
453232	长4.5*宽3.2*高3.2毫米/Length4.5 *Width3.2 *Height3.2mm
④	外观形状区分代码, 请参考产品形状尺寸页面
A	Appearance shape distinguishes the code ,Please refer to the product shape and size page
⑤	电感量标识(亨利)/Inductance identification(H)
2R2	R22(0.22μH) , 2R2(2.2μH) , 100(10μH) , 221(220μH) , 202(2000μH)
⑥	电感容差字母代码/Inductance tolerance letter code
M	J±5% , K±10% , L±15% , M±20% , P±25% , N±30%
⑦	内部管理代码/Internal management code
X	无代码为常规产品, 其它请咨询/No code regular product, other please consult

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3. 耐温等级/Temperature resistance class:

工作温度: -40 ~ +125°C(含自温升)

Operating Temperature : -40 ~ +125°C(Including self - temperature rise)

4. 电气性能表/Electrical Characteristics List:

NO.	Part Number	电感值 Inductance (uH)	Q值 min.	测试频率 Test frequency L,Q (MHz)	自谐频率 Self- resonant frequency (MHz)min.	直流电阻 DC resistance (Ω) max.	额定电流 Rated current. (mA)max.	电感允差 Inductance tolerance
1	J-MRPE453232A-1R0K	1.0	10	7.960	180	0.110	1050.0	±10%
2	J-MRPE453232A-1R2K	1.2	10	7.960	160	0.120	1000.0	±10%
3	J-MRPE453232A-1R5K	1.5	10	7.960	130	0.150	950.0	±10%
4	J-MRPE453232A-1R8K	1.8	10	7.960	100	0.160	900.0	±10%
5	J-MRPE453232A-2R2K	2.2	10	7.960	80	0.180	850.0	±10%
6	J-MRPE453232A-2R7K	2.7	10	7.960	60	0.200	800.0	±10%
7	J-MRPE453232A-3R3K	3.3	10	7.960	45	0.220	750.0	±10%
8	J-MRPE453232A-3R9K	3.9	10	7.960	40	0.240	700.0	±10%
9	J-MRPE453232A-4R7K	4.7	10	7.960	35	0.270	650.0	±10%
10	J-MRPE453232A-5R6K	5.6	10	7.960	30	0.300	650.0	±10%
11	J-MRPE453232A-6R8K	6.8	10	7.960	28	0.350	600.0	±10%
12	J-MRPE453232A-8R2K	8.2	10	7.960	25	0.400	600.00	±10%
13	J-MRPE453232A-100K	10.0	10	2.520	22	0.500	550.0	±10%
14	J-MRPE453232A-120K	12.0	10	2.520	21	0.600	500.0	±10%
15	J-MRPE453232A-150K	15.0	10	2.520	20	0.700	450.0	±10%
16	J-MRPE453232A-180K	18.0	10	2.520	19	0.800	400.0	±10%
17	J-MRPE453232A-220K	22.0	10	2.520	18	0.900	370.0	±10%

Test remarks:

1.Rated current: Value obtained when current flows and the temperature has risen to 20°C or when DC current flows and the initial value of inductance has fallen by 10%, whichever is smaller

2.Test equipment L, Q: HP4285A +16034E, or equivalent.

3.SRF: HP8753C NETWORK ANALYZER, or equivalent.

4.DC resistance: AX-111A DIGITAL MILLIOHM METER, or equivalent.

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NO.	Part Number	电感值 Inductance (uH)	Q值 min.	测试频率 Test frequency L,Q (MHz)	自谐频率 Self- resonant frequency (MHz)min.	直流电阻 DC resistance (Ω) max.	额定电流 Rated current. (mA)max.	电感允差 Inductance tolerance
1	J-MRPE453232A-270K	27.0	10	2.520	16	1.200	330.0	±10%
2	J-MRPE453232A-330K	33.0	10	2.520	14	1.400	300.0	±10%
3	J-MRPE453232A-390K	39.0	10	2.520	12	1.600	280.0	±10%
4	J-MRPE453232A-470K	47.0	10	2.520	12	1.900	260.0	±10%
5	J-MRPE453232A-560K	56.0	10	2.520	11	2.200	240.0	±10%
6	J-MRPE453232A-680K	68.0	10	2.520	10	2.600	220.0	±10%
7	J-MRPE453232A-820K	82.0	10	2.520	9	3.500	200.0	±10%
8	J-MRPE453232A-101K	100.0	20	0.796	8	4.000	180.0	±10%
9	J-MRPE453232A-121K	120.0	20	0.796	8	4.500	160.0	±10%
10	J-MRPE453232A-151K	150.0	20	0.796	7	6.500	140.0	±10%
11	J-MRPE453232A-181K	180.0	20	0.796	7	7.500	120.0	±10%
12	J-MRPE453232A-221K	220.0	20	0.796	6	9.000	120.00	±10%
13	J-MRPE453232A-271K	270.0	20	0.796	5	11.000	100.0	±10%
14	J-MRPE453232A-331K	330.0	20	0.796	4	13.000	90.0	±10%

Test remarks:

1.Rated current: Value obtained when current flows and the temperature has risen to 20°C or when DC current flows and the initial value of inductance has fallen by 10%, whichever is smaller

2.Test equipment L, Q: HP4285A +16034E, or equivalent.

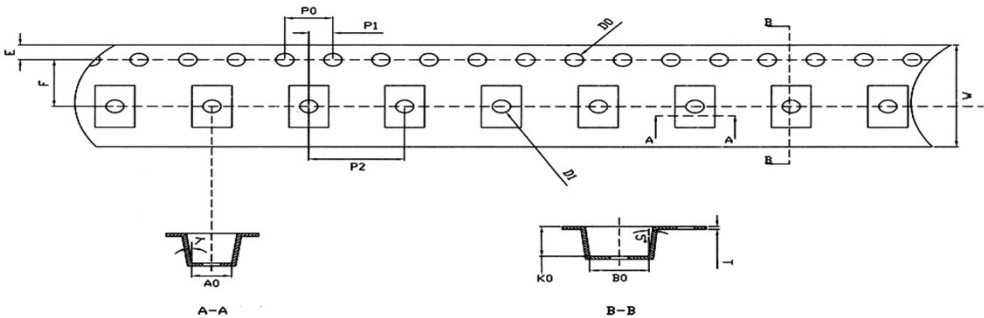
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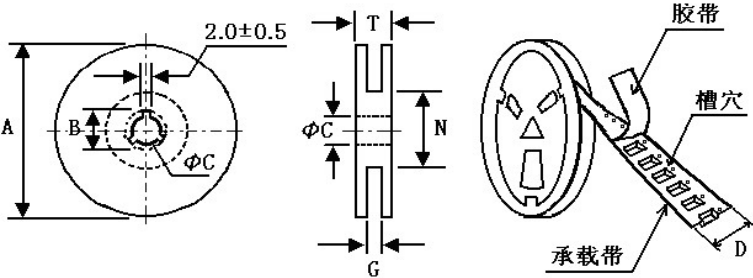
5. 包装/PACKAGE :

(1) Tape Dimensions(Unit:mm)



E	F	P1	D0	D1	P0	W	P2	A0	B0	K0	T
1.75	5.5	2	1.5	1	4	12	8	3.31	4.95	3.5	0.35

(2) Reel Dimensions (Unit:mm)



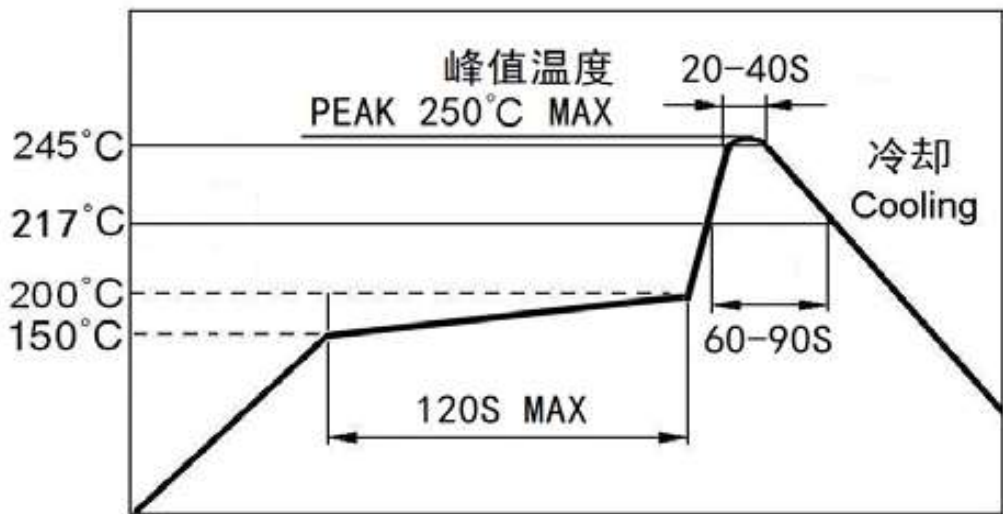
规格Type	A	B	C	D	G	N	T
7"	178 Ref	21 Ref	13 Ref	12 Ref	14 Max	50 Min	18.4 Max
13"	330 Ref	21 Ref	13 Ref	12 Ref	14 Max	100 Min	18.4 Max

(3) Packaging Quantity (Unit:Pcs)

盘包装Reel	内盒Inner Box (mm)	外箱Outer Box (mm)
500 支pieces7"	2000支pieces185×185×70	20000/40000支pieces 380×205×380/380×380×380
2000 支pieces13"	8000支pieces350×350×60	24000支pieces360×360×215

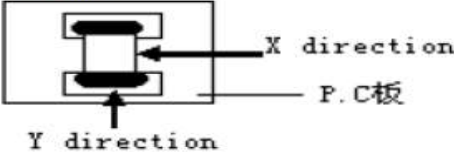
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6. 建议回流焊温度曲线/Reflow temperature profile is recommended:



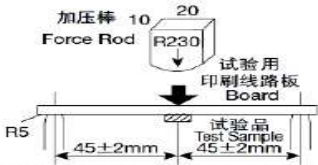
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7. 可靠性测试/Reliability Test:

项目 Requirements	试验条件 Test method	性能要求 Characteristics																					
高温试验 High TEMP life test	温度: 125±3℃; 放置时间: 1000±6Hrs; TEMP. 125±3℃, Load 1000±6Hrs.	外观无显著异常; 电感值变化率: ±10%以内; Inductance change : Within ±10%; No significant abnormality in appearance.																					
低温试验 Low TEMP life test	温度: -40±2℃; 放置时间: 1000±6Hrs; TEMP. -40±2℃, Load 1000±6Hrs	外观无显著异常; 电感值变化率: ±10%以内; Inductance change : Within ±10%; No significant abnormality in appearance.																					
高湿试验 Damp heat	温度: 40±2℃, 相对湿度90~95%RH; 放置时间: 1000±6Hrs; TEMP. 40±2℃, Humidity. 90 ~ 95%RH, Load 1000±6Hrs	外观无显著异常; 电感值变化率: ±10%以内; Inductance change : Within ±10%; No significant abnormality in appearance.																					
热冲击试验 Thermal shock	将试验品焊接到印刷线路板上, 按下表所示循环步骤, 10个循环 <table><tr><th colspan="3">1个循环条件Conditions of 1 cycle</th></tr><tr><th>步骤 Step</th><th>温度 (℃) TEMP</th><th>时间 (min) Duration</th></tr><tr><td>1</td><td>-40±3</td><td>30±3</td></tr><tr><td>2</td><td>常温</td><td>3以下</td></tr><tr><td>3</td><td>+125±2</td><td>30±3</td></tr><tr><td>4</td><td>常温</td><td>3以下</td></tr><tr><td></td><td>Room TEMP</td><td>Within 3</td></tr></table>	1个循环条件Conditions of 1 cycle			步骤 Step	温度 (℃) TEMP	时间 (min) Duration	1	-40±3	30±3	2	常温	3以下	3	+125±2	30±3	4	常温	3以下		Room TEMP	Within 3	外观无显著异常; 电感值变化率: ±10%以内; Inductance change : Within ±10%; No significant abnormality in appearance.
1个循环条件Conditions of 1 cycle																							
步骤 Step	温度 (℃) TEMP	时间 (min) Duration																					
1	-40±3	30±3																					
2	常温	3以下																					
3	+125±2	30±3																					
4	常温	3以下																					
	Room TEMP	Within 3																					
端子强度试验 Adhesion of terminal electrode	试验品焊接到试验用印刷线路板上, 施加力9.8N(1kg), 施加时间10±2sec, 方向: X、Y The test samples shall be soldered to the test board by the reflow. 	外观无显著异常; 电感值变化率: ±10%以内; Inductance change : Within ±10%; No significant abnormality in appearance.																					
耐振性 Resistance to vibration	将产品焊接到印刷线路板上, 按下示条件进行测试: 振动频率范围: 10~55Hz; 振幅: 1.5mm (但加速度不能超过196m/s²); 1个循环: 1分钟 (10→55→10Hz); 时间: X、Y、Z方向各2小时 The test samples shall be soldered to the test board by the reflow. Then it shall be submitted to below conditions. Frequency Range:10~55Hz; Total Amplitude :1.5mm (May not exceed acceleration 196m/s²); Sweeping Method: 10→55→10Hz for 1min Time: For 2 hours on each X, Y, and Z axis.	外观无显著异常; 电感值变化率: ±10%以内; Inductance change : Within ±10%; No significant abnormality in appearance.																					

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7. 可靠性测试/Reliability Test:

抗弯强度试验 Resistance to flexure of substrate	将试验品焊接到试验用印刷线路板上，如图所示在印刷线路板上按箭头方向施加荷重，使其弯曲 2mm 为止。 The test samples shall be soldered to the test board by the reflow. Then apply a force in the direction shown below, flexure: 2mm. 	外观无显著异常，无破损； 电感值变化率：±10%以内； Inductance change: Within ±10%; No significant abnormality in appearance, No damage.
可焊性试验 Solderability	焊锡温度：250±5℃ 浸渍时间：5±0.5ses 浸渍深度：安装端子面浸入。 Solder Temperature:250±5℃ Time: 5±0.5ses All sides of mounting terminal shall be immersed.	端电极新锡覆盖面积达95%以上 At least 95% of surface of terminal electrode is covered by new solder.
耐焊接热试验 Resistance to soldering heat	方法1：将端子在250±5℃的焊液中浸入10±1秒后常温放置2小时以上 Method 1: Immerse in the solder of 250±5℃ for 10±1sec, load in room Temperature 2 hours. 方法2：峰值温度 250℃保持 20-40 秒回流焊接两遍试验，放置 30 分钟后检测（Per MIL-STD-202F） Method 2: The test sample shall be exposed to reflow with peak temperature at 250℃ for 20 to 40 seconds, 2 times. Load in room Temperature 30 min. (Per MIL-STD-202F)	外观无显著异常； 电感值变化率：±10%以内； Inductance change: Within ±10%; No significant abnormality in appearance.
温度特性 Temperature characteristic	在-40℃～+125℃环境温度范围内测试，并以20℃时的值为基准计算得出。 步骤1～5中最大电感值偏差变化率： 步骤1的温度：20℃ 步骤2的温度：最低使用温度 步骤3的温度：20℃（基准温度） 步骤4的温度：最高使用温度 步骤5的温度：20℃ Measurement of inductance shall be taken at temperature range within -40℃～+125℃. With reference to inductance value at +20℃., change rate shall be calculated. Change of maximum inductance deviation in step 1 to 5: Temperature at step 1: 20℃ Temperature at step 2: Minimum operating temperature Temperature at step 3: 20℃ (Standard temperature) Temperature at step 4 :Maximum oparating temperature Temperature at step 5 :20℃	外观无显著异常； 电感值变化率：±20%以内； Inductance change: Within ±20%; No significant abnormality in appearance.
跌落试验 Dropping	包装 OK 的产品，1m 高/木质地板或水泥地板，三次。 Packing ok product, Dropping 1m over the ground of concrete or cement, 3 times.	外观无显著异常，无破损； 电感值变化率：±10%以内； Inductance change: Within ±10%; No significant abnormality in appearance, No damage.

* 测定条件：如无特别指定时，其温度为 20±15℃，湿度为 65±20%。如在判定上如出现疑问时，可变更为 20±2℃，湿度为 65±5%。
如无特别指定时，试验后在常温、常湿中放置 1 小时以上，2 小时内测定。