

承認書

SPECIFICATION FOR APPROVAL

CUSTOMER: _____ 2144 _____

SAMPLE NO: _____ 180830701 _____

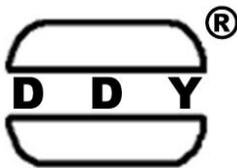
DDY PART NO: _____ AL0204-R15M-LF _____

CUST MODEL NO: _____

DESCRIPTION: _____ FIXED INDUCTORS _____

DRAWING		
MADE	CHECKED	APPROVED
曹春宁	邓永雄	钟远明
DATE: 2018年9月3日		

CUSTOMER APPROVE
13336



惠州市德立電子有限公司

HUI ZHOU DELI ELECTRONICS CO., LTD

廣東省博羅縣洲際工業園梅園三路

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HUI ZHOU DELI ELECTRONICS CO., LTD

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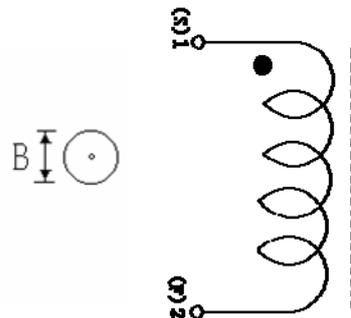
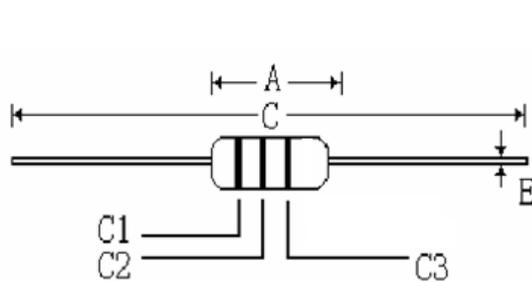


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1. SHAPES AND DIMENGSIONS (UNIT:mm)

ELECTRICAL SCHEMATICS



TURN: $\phi 0.08 \times 3.6Ts$

SPEC.(mm)	
A	4.0 MAX
B	2.4 MAX
C	60.0±2.0
E	0.45±0.1
C1	Brown
C2	Green
C3	Silver

2. ELECTRICAL SPECIFICATION & TEST INSTRUMENTS@25°C

ITEM	SPEC. RANGE	TEST CONDITION	TEST INSTRUMENTS
L	150nH±20%	25.2MHz/1V	HP-4285A
Q	40Min	25.2MHz/1V	MQ-1601
DCR	120mΩMax	25°C	502BC
IDC	700mA Max	100KHz/0.25V	VR116+VR7210

3. PART NUMBERING SYSTEM

AL □□□□ - □R□ □ - □□
1 **2** **3** **4** **5**

- 1 PRODUCT SYMBOL (产品代号)
- 2 DIMENSIONS (规格尺寸)
- 3 INDUCTANCE (电感量)
- 4 TOLERANCE (公差) : J±5%; K±10%; L±15%; M±20%; P±25%; N±30%
- 5 E.P. (环保) : LF—Lead Free HF—Halogen Free FP—Red Phosphor Free

APPROVED BY	CHECKED BY	DRAFT
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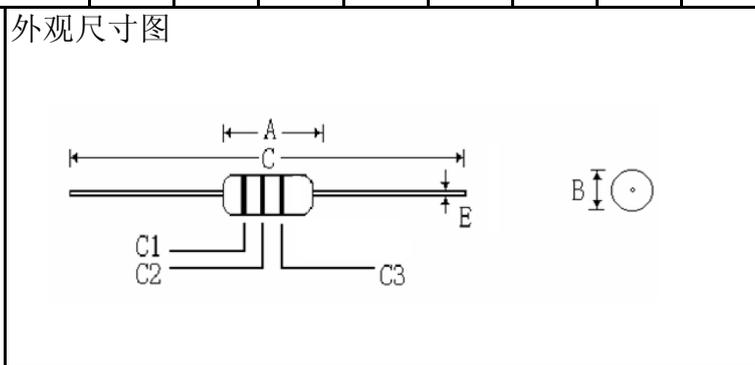
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4. TEST DATA OF ELECTRICAL CHARACTERISTIC

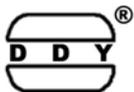
ELECTRICAL CHARACTERISTIC				DIMENSIONS(mm)							
TEST ITEM	L	Q	DCR	A	B	C	E				
	25.2MHz/1V	25.2MHz/1V	At 25°C	(mm)	(mm)	(mm)	(mm)				
CON.				4.0 MAX	2.4 MAX	60.0± 2.0	0.45± 0.1				
SPEC.	150nH±20%	40Min	120mΩMax								
1	150.00	60.00	80.00	3.67	2.21	61.18	0.45				
2	147.00	61.00	78.00	3.57	2.18	61.16	0.44				
3	148.00	58.00	81.00	3.62	2.25	61.20	0.45				
4	154.00	63.00	82.00	3.61	2.17	61.25	0.43				
5	152.00	62.00	79.00	3.69	2.19	61.35	0.46				
6	150.00	59.00	80.00	3.65	2.20	61.29	0.45				
7	149.00	60.00	80.00	3.58	2.18	61.28	0.44				
8	150.00	60.00	78.00	3.61	2.19	61.20	0.46				
9	147.00	58.00	81.00	3.65	2.25	61.22	0.47				
10	152.00	62.00	80.00	3.64	2.26	61.32	0.45				
X	149.90	60.30	79.90	3.63	2.21	61.25	0.45				
R	7.00	5.00	4.00	0.12	0.09	0.19	0.04				

综合判定:
COLLIGATION DETERMINANT:

OK NG



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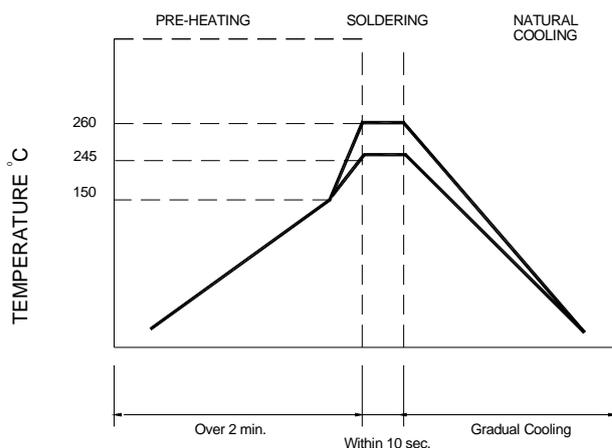


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5.Soldering Conditions

Wave Soldering:



Note :

- Never contact the ceramic with the iron tip
- 1.0mm tip diameter (max)

6.MATERIAL LIST

NO	ITEM	DESCRIPTION	SUPPLIER	RATING	UL File
1	CORE	H2F DRWW 2×2	JINWEI		
2	WIRE	QA-1 Φ0.08mm N	JINYAN	155°C	E238500
3	EPOXY RESIN	NC-G	OHASHI	200°C	
4	PIN	TCW Φ0.45mm	MINGTONG		

REMARK:

1. Operating temperature range from -40°C ~ +125°C.
2. Storage temperature range from -40°C ~ +125°C.
3. Moisture sensitivity level (MSL) 2 (1 year floor life at <30°C/85% relative humidity)
4. Failures in time(FIT)/Mean Time Between Failures(MTBF)
38 per billion hours/26,315,789 hours,calculated per Telcordia SR-332.

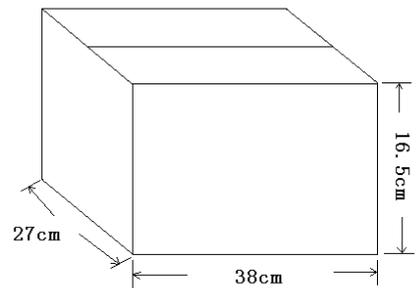
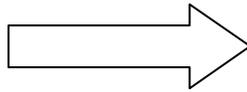
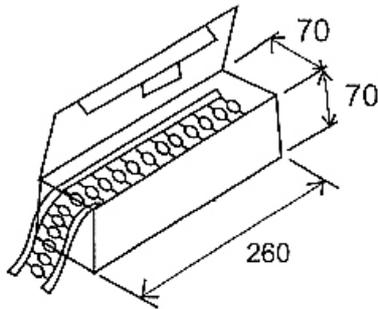
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7. PACKAGE SPECIFICATION UNIT:mm



NO.	Packaging Materials	ReferenceDimension	Material	Quantity
1	Box	260×70×70(mm)	B9B	3000PCS/Box
2	Master Carton	380×270×165(mm)	K36K	30000PCS/10Box

备注：产品采用编带盒装,每盒装3000PCS,一箱装10盒,共计30000PCS.

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8. RELIABILITY TEST

TEST ITEM	SPECIFICATION	TEST CONDITION
Terminal pull strength	9.8(N)MIN	A pulling load should be gradually applied to the leads in a downward direction and should be monitored the value at the point of destroy.
Terminal bending strength	1CYCLE MIN	A specified load of 4.9(N) should be suspended, From the terminal then slowly inclined the 90°, and then return to normal position ,The consecutive bends shall be done in the opposite directions.(Total 1 cycle)
Dropping	$\Delta L/L0 \leq \pm 5\%$ $\Delta Q/Q0 \leq \pm 20\%$ There is no evidence of any mechanical failures	The sample shall be dropped on a concrete floor once from 1 meter height (39 inches) Total 3 cycles.
Vibration	$\Delta L/L0 \leq \pm 5\%$ $\Delta Q/Q0 \leq \pm 20\%$ There is no evidence of any mechanical failures	<p>Axis of vibration: X,Y,Z AXIS. Duration of test: 10 minutes for each axis.</p>
Resistance to soldering heat	There is no evidence of any mechanical failures	The sample should be immersed to a depth of 1.5mm below the lower core surface into solder at a temperature of 260°C (+10,-0)for a duration of 5seconds(+1,-0).

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8.2 RELIABILITY TEST

TEST ITEM	SPECIFICATION	TEST CONDITION
High temperature storage	$\Delta L/L_0 \leq \pm 5\%$ $\Delta Q/Q_0 \leq \pm 25\%$ There is no evidence of any mechanical failures	The coil should be stored at an ambient temperature of $+85 \pm 2^\circ\text{C}$ for 72 hours ,after which the measurement should be made.
Low temperature storage	$\Delta L/L_0 \leq \pm 5\%$ $\Delta Q/Q_0 \leq \pm 25\%$ There is no evidence of any mechanical failures	The coil should be stored at an ambient temperature of $-40 \pm 2^\circ\text{C}$ for 500 hours ,after which the measurement should be made.
Thermal shock	$\Delta L/L_0 \leq \pm 5\%$ $\Delta Q/Q_0 \leq \pm 30\%$ There is no evidence of any mechanical failures	
Humidity life test	$\Delta L/L_0 \leq \pm 5\%$ $\Delta Q/Q_0 \leq \pm 30\%$ There is no evidence of any mechanical failures	The rated current shall be applied to the coil at an ambient temperature $+40 \pm 2^\circ\text{C}$ with relative humidity of 90% for 1000 hours.
Over load test	No abnormal smoking or fire	The twice current of the rated dc current should be applied to the coil for 5 min

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