

Coilmaster



RoHS Compliant

SPECIFICATION APPROVAL

CUSTOMER : Ozdisan

PRODUCT : RCB0810HP-1R0M-LF

Pb-free

CODE NO. : C04408191

CUS. CODE :

SPEC.NO. : C-4408-191(01)

DATE : 27-Feb-20

CUSTOMER APPROVAL

Coilmaster Electronics Co., Ltd.

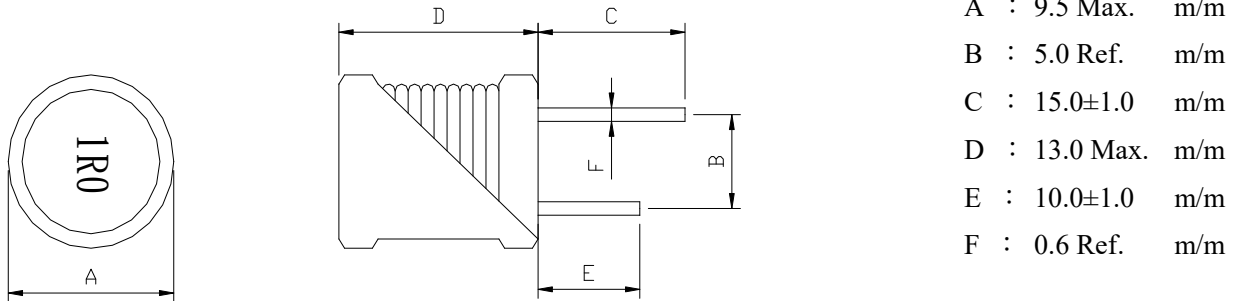
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PREPARED BY	APPROVED BY	AUTHORIZED BY
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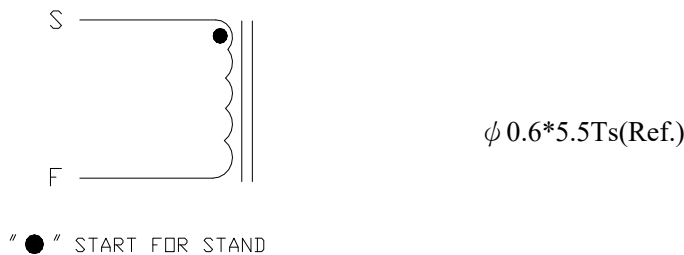
EXTERNAL DIMENSIONS :



ELECTRICAL CHARACTERISTIC :

L(uH) :	1.0±20%	796KHz	WITH PET TUBE
DCR(mΩ) :	13	Max.	
IDC(A) :	10	Max. (L10A MAX ≥ 0Ax90%)	
INDUCTANCE DROP :	10% Typ. @ IDC	10	A
SRF(MHz) :	80	Min.	
Operating Temperature Range :	- 40°C ~ +125°C		

SCHEMATIC DRAWING :



MATERIAL LIST :

NO	ITEM	MATERIAL	SUPPLIER OF THE MATERIAL
1	CORE	F4D DR2W7.8*10(SW) B5.5 F5.5 P5	
2	WIRE	φ0.60 UEF1/U(180°C)	ELEKTRISOLA
3	TUBE	PETφ9*14±0.3mm-0-N	
4	CLEANSER	XD-709A	

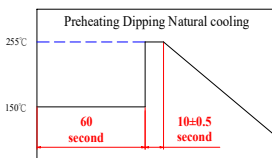
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TEST DATA

ELECTRICAL CHARACTERISTICS								
MEAS. ITEM	L(uH)	DCR(mΩ)	IDC(A)					
TEST FREQ.	796KHz	Max.	Max.					
YOUR			L(10A)					
SPEC.	1.0±20%	13	≥ 0Ax90%					
1	1.10	8.06	1.09					
2	1.08	8.20	1.07					
3	1.09	8.08	1.08					
4	1.10	8.01	1.09					
5	1.10	7.95	1.09					
6	1.06	7.89	1.05					
7	1.10	8.14	1.09					
8	1.10	7.96	1.09					
9	1.09	8.19	1.08					
10	1.10	8.32	1.09					
X	1.092	8.080	1.082					
R	0.04	0.43	0.04					

DIMENSION								
MEAS. ITEM	A	B	C	D	E			
TEST FREQ.	m/m	m/m	m/m	m/m	m/m			
YOUR								
SPEC.	9.5 Max.	5.0 Ref.	15.0±1.0	13.0 Max.	10.0±1.0			
1	8.26	5.06	15.02	10.30	9.81			
2	8.19	5.07	14.90	10.24	9.88			
3	8.01	5.11	14.86	10.45	10.06			
4	8.48	5.07	14.76	10.29	9.80			
5	8.17	5.04	15.11	10.25	10.08			
6								
7								
8								
9								
10								
X	8.222	5.070	14.930	10.306	9.926			
R	0.47	0.07	0.35	0.21	0.28			

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TEST ITEMS	SPECIFICATIONS	TEST CONDITIONS / TEST METHODS		
<u>ELECTRICAL PERFORMANCE TEST</u>				
L	REFER TO STANDARD ELECTRICAL CHARACTERISTIC LIST.	CH-1061 OR EQUIV.		
DCR		CH-502A OR EQUIV		
RATED CURRENT		APPLIED THE CURRENT TO COILS THE INDUCTANCE CHANGE SHOULD BE LESS THAN 10% TO INITIAL VALUE AND TEMPERATURE RISE SHOULD NOT BE MORE THAN 40°C..		
TEMPERATURE RISE TEST	40°C MAX (Δt)	1. APPLIED THE ALLOWED DC CURRENT FOR 4 HOURS. 2. TEMPERATURE MEASURE BY DIGITAL SURFACE THERMOMETER.		
OVER LOAD TEST	NO EVIDENCE OF ELECTRICAL DAMAGE	APPLIED 1.5 TIMES OF RATED ALLOWED DC CURRENT TO INDUCTORS FOR A PERIOD OF 5 MINUTES.		
<u>MECHANICAL PERFORMANCE TEST</u>				
SOLDER HEAT RESISTANCE	 <p>1. INDUCTORS SHOULD HAVE NO EVIDENCE OF ELECTRICAL AND MECHANICAL DAMAGE 2. INDUCTANCE SHOULD NOT CHANGE MORE THAN $\pm 10\%$ 3. SOLDER MATERIAL WILL BE LEAD FREE.</p>	PREHEAT: 150°C 60SECS SOLDER TEMPERATURE: 255 \pm 5°C FLUX: ROXIN.. A		
VIBRATION TEST (LOW FREQUENCY)		1. AMPLITUDE: 1.5 mm 2. FREQUENCY: 10-55-10HZ / 1 MIN 3. DIRECTION: X, Y, Z 4. DURATION: 2 HRS/X, Y, Z		
SHOCK TEST		INDUCTORS SHOULD BE DROPPED 10 TIMES FROM A HEIGHT OF 1m ONTO 3cm WOODEN BOARD.		

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TEST ITEMS	SPECIFICATIONS	TEST CONDITIONS / TEST METHODS
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CLIMATIC TEST

TEMPERATURE CHARACTERISTIC	1.APEARANCE:NO DAMAGE 2.INDUCTANCE:WITHIN±10% OF INITIAL VALUE.	- 40°C ~ +125°C	
HUMIDITY TEST		60°C±2°C / 96±2 HOURS	
LOW TEMPERATURE STORAGE		1.TEMPERATURE:- 25°C±2°C 2.TIME: 96±2 HOURS	
THERMAL SHOCK TEST		1.-25±5°C FOR 30 MINUTES. +80±5°C FOR 30 MINUTES. 2.TOTAL: 10 CYCLES	
HIGH TEMPERATURE STORAGE		1.APPLIED CURRENT: MAX RATED CURRENT 2.TEMPERATURE:80°C±2°C	

NOTE : INDUCTORS ARE TO BE TESTED AFTER 2 HOUR AT ROOM TEMPERATURE.

LIFE TEST

HIGH TEMPERATURE LOAD LIFE TEST	INDUCTORS SHOULD BE NO EVIDENCE OF SHORT OR OPEN CIRCUIT	1. TEMPERATURE: 80±2°C 2. TIME: 500±12 HOURS 3. LOAD: ALLOWED DC CURREN
HUMIDITY LOAD LIFE TEST		1. TEMPERATURE: 60±2°C 2. R.H.: 90-95% 3. TIME: 500±12 HOURS 4. LOAD: ALLOWED DC CURREN

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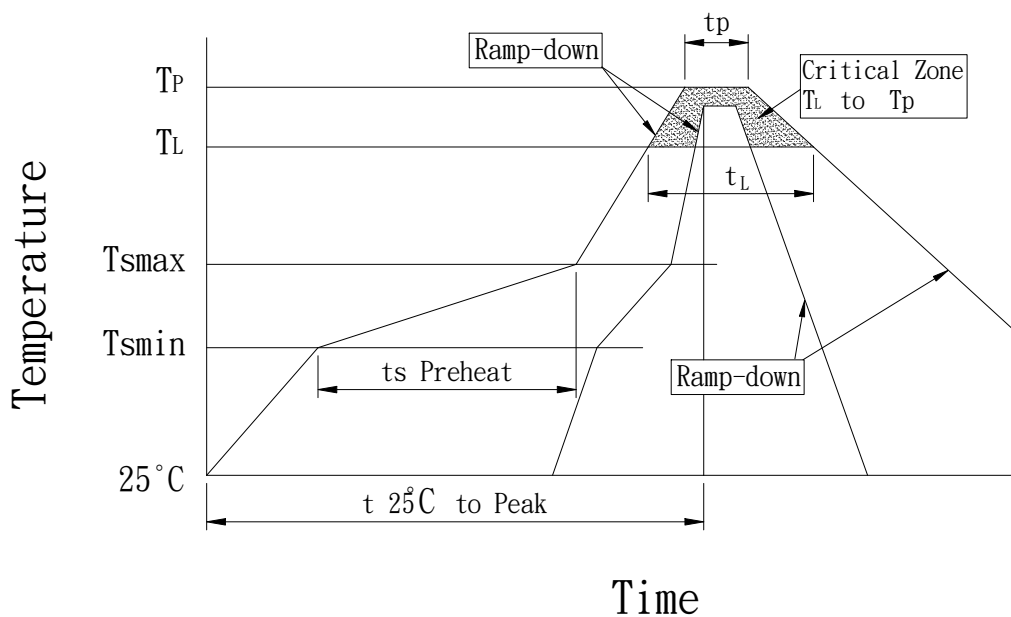
RECOMMENDED SOLDERING CONDITIONS :

CLASSIFICATION REFLOW PROFILES

Profile Feature	Sn-Pb Eutectic Assembly		Pb-Free Assembly	
	Large Body	Small Body	Large Body	Small Body
Average ramp-up rate (T_L to T_P)	3°C/second max.		3°C/second max.	
Preheat				
-Temperature Min (T_{smin})	100°C		150°C	
-Temperature Min (T_{smax})	150°C		200°C	
-Time (min to max) (ts)	60-120 seconds		60-180 seconds	
T_{smax} to T_L				
-Ramp-up Rate			3°C/second max.	
Time maintained above:				
-Temperature (T_L)	183°C		217°C	
-Time (t_L)	60-150 seconds		60-150 seconds	
Peak Temperature (T_P)	225 +0/-5°C	240 +0/-5°C	245 +0/-5°C	255 +5/-5°C
Time within 5°C of actual Peak Temperature (t_p)	10-30 seconds	10-30 seconds	10-30 seconds	20-40 seconds
Ramp-down Rate	6°C/second max.		6°C/second max.	
Time 25°C to Peak Temperature	6 minutes max.		8 minutes max.	

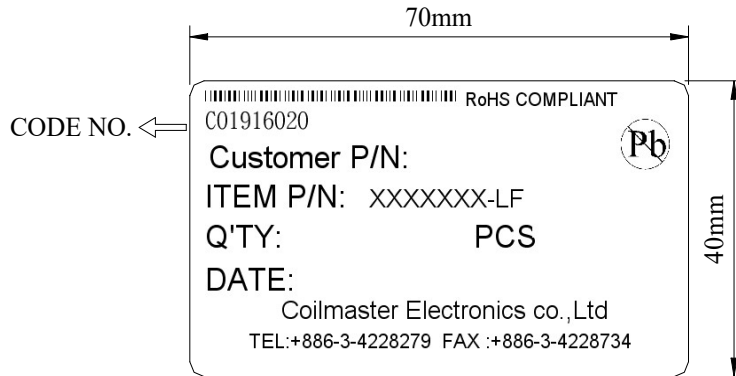
Note : All temperatures refer to top side of the package. Measured on the package body surface.

REFLOW SOLDERINGS



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TABLE :



INNER BOX LABEL



OUT BOX LABEL

COILMASTER ELECTRONICS CO., LTD.