Coilmaster

RoHs Compliant

SPECIFICATION APPROVAL

CUSTOMER : SEA

PRODUCT : RCB1820P-221K-LF

MATERIAL Pb-free

CODE NO. : C04418012

CUS. CODE :

SPEC.NO. : C-4418-012(00)

CUSTOMER APPROVAL

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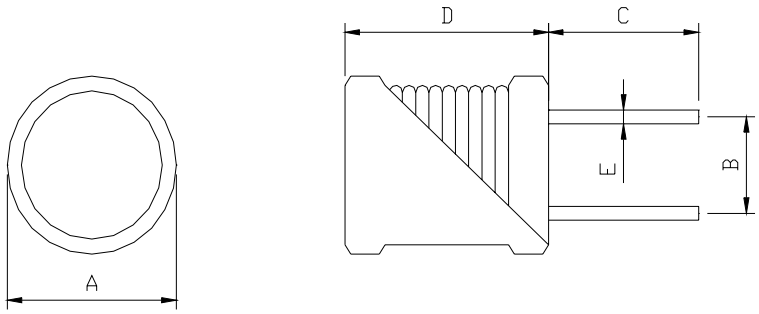
PREPARED BY	APPROVED BY	AUTHORIZED BY
JEAN	TONY	MASCOT

CUSTOMER	SEA	COIL SPECIFICATION	SPEC. NO.	C-4418-012(00)
CUS. P/N			CODE NO.	C04418012
PRODUCT	RCB1820P-221K-LF		DATE	6/27/06

EXTERNAL DIMENSIONS：

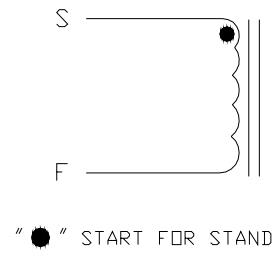


A ： 18.0 Max. m/m
B ： 10.0±0.5 m/m
C ： 15.0±5.0 m/m
D ： 20 Max. m/m
E ： 1.0±0.1 m/m

ELECTRICAL CHARACTERISTIC：

L(μH) ：	220±10%	1KHz / 0.25V WITH UL TUBE
RDC(mΩ)：	160	Max.
IDC(A)：	2.3	Max. (L2.3 A MAX ≧0Ax80%)
INDUCTANCE DROP :	20% MAX @ IDC2.3A	

SCHEMATIC DRAWING ：



Φ0.7×60.5Ts(Ref.)

MATERIAL LIST：

NO	ITEM	MATERIAL	SUPPLIER OF THE MATERIAL
1	CORE	P3B DR16x18F B=9 F=13 P=10	HONG YI
2	WIRE	Φ0.7mm 2UEW	PACIFIC ELECTRONIC WIRE & CABLE CO.,LTD OR EQUIVALENT
3	TUBE	UL Φ16x22.5mm	CHANGBAO

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TEST DATA

ELECTRICAL CHARACTERISTICS					DIMENSION			
MEAS. ITEM	L(μH)	DCR(Ω)	IDC(A)		A	B	C	D
TEST FREQ.	1KHz / 0.25V	Max.	Max.		m/m	m/m	m/m	m/m
YOUR			L(2.3A)					
SPEC.	220±10%	160	≧0Ax80%		18.0 Max.	10.0±0.5	15.0±5.0	20 Max.
1	216.5	90.88	210.3		17.38	9.84	14.03	19.35
2	218.6	91.43	212.5		17.52	9.91	14.23	19.27
3	215.9	91.14	200.8		17.56	10.02	14.31	19.18
4	218.4	91.33	205.6		17.47	9.99	14.28	19.36
5	217.3	91.20	209.4		17.39	9.82	14.05	19.30
6	218.2	91.70	210.4		17.45	10.13	14.31	19.25
7	215.8	91.48	200.8		17.50	10.00	14.29	19.37
8	216.8	91.52	210.3		17.37	9.97	14.18	19.10
9	218.5	91.74	211.3		17.52	9.90	14.04	19.24
10	216.0	91.71	211.4		17.50	10.03	14.50	19.30
X	217.237	91.441	208.280		17.466	9.961	14.222	19.272
R	2.800	0.860	11.700		0.190	0.310	0.470	0.270

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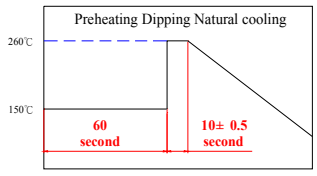
TEST ITEMS	SPECIFICATIONS	TEST CONDITIONS / TEST METHODS
ELECTRICAL PERFORMANCE TEST		
L	REFER TO STANDARD ELEC-TRICAL CHARACTERISTIC LIST.	CH-1061 OR EQUIV.
DCR		CH-502A OR EQUIV
RATED CURRENT		APPLIED THE CURRENT TO COILS THE IDUCTANCE CHANGE SHOULD BE LESS THAN 25% TO INITIAL VALUE AND TEMPERATURE RISE SHOULD NOT BE MORE THAN 40℃..
TEMPERATURERISE TEST	40℃ MAX (△t)	1. APPLIED THE ALLOWED DC CURRENT FOR 4 HOURS. 2. TEMPERATURE MEASURE BY DIGTAL 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.
MECHANICAL PERFORMANCE TEST		
SOLDER HEAT RESISTANCE	1. INDUCTORS SHOULD HAVE NO EVIDENCE OF ELEC- TRICAL AND MICHANICAL DAMAGE 2. INDUCTANCE SHOULD NOT HANGE MORE THAN±10%	PREHEAT:150℃ 60SECS SOLDER TEMPERATURE: 260±5℃ FLUX: ROXIN.. DIP TIME:10±0.5SECS. 
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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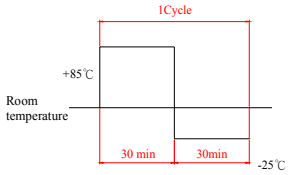
CLIMATIC TEST		
TEMPERATURE CHARACTERISTIC	1.APPEARANCE:NO DAMAGE 2.INDUCTANCE:WITHIN±10% OF INITIAL VALUE.	- 25℃ ~ +80℃
HUMIDITY TEST		60℃±2℃ / 96±2 HOURS
LOW TEMPERATURE STORAGE		1.TEMPERATURE:- 25℃±2℃ 2.TIME: 96±2 HOURS
THERMAL SHOCK TEST		1.-25±5℃ FOR 30 MINUTES. +80±5℃ FOR 30 MINUTES. 2.TOTAL: 10 CYCLES 
HIGH TEMPERATURE STORAGE		1.APPLIED CURRENT: MAX RATED CURRENT 2.TEMPERATURE:80℃±2℃
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℃ 2. TIME: 500±12 HOURS 3. LOAD: ALLOWED DC CURREN
HUMIDITY LOAD LIFE TEST		1. TEMPERATURE: 60±2℃ 2. R.H.: 90-95％ 3. TIME: 500±12 HOURS 4. LOAD: ALLOWED DC CURREN

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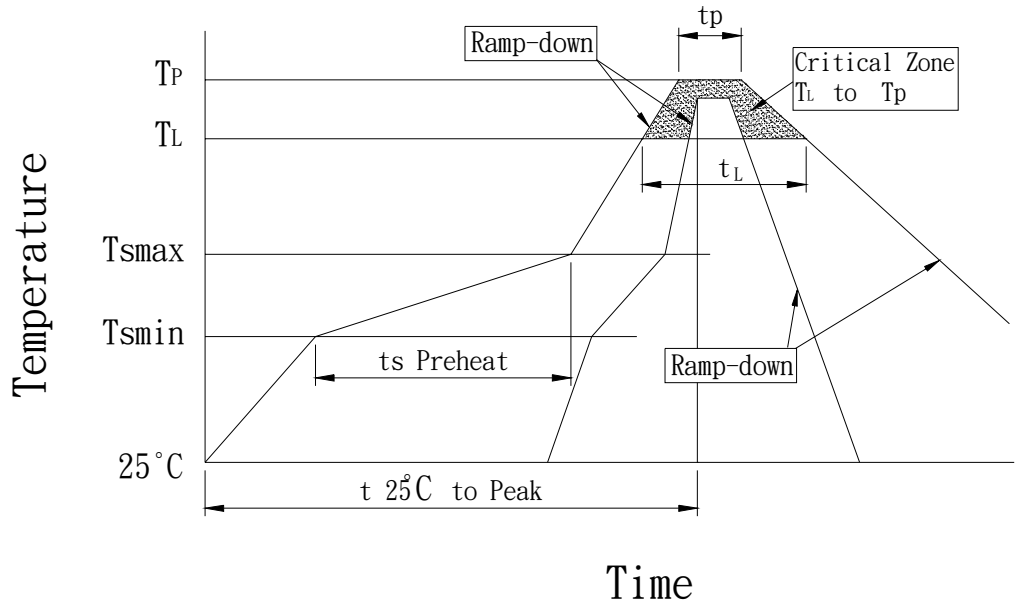
RECOMMENDED SOLDERING CONDITIONS：

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℃/second max.		3℃/second max.	
Preheat -Temperature Min (Ts_{min}) -Temperature Min (Ts_{max}) -Time (min to max) (ts)	100℃ 150℃ 60-120 seconds		150℃ 200℃ 60-180 seconds	
Tsmax to T_L -Ramp-up Rate			3℃/second max.	
Time maintained above: -Temperature (T_L) -Time (t_L)	183℃ 60-150 seconds		217℃ 60-150 seconds	
Peak Temperature (Tp)	225 +0/-5℃	240 +0/-5℃	245 +0/-5℃	255 +5/-5℃
Time within 5℃ of actual Peak Temperature (tp)	10-30 seconds	10-30 seconds	10-30 seconds	20-40 seconds
Ramp-down Rate	6℃/second max.		6℃/second max.	
Time 25℃ to Peak Temperature	6 minutes max.		8 minutes max.	

Note : All temperatures refer t topside of the package. Measured on the package body surface.

REFLOW SLODERINGS



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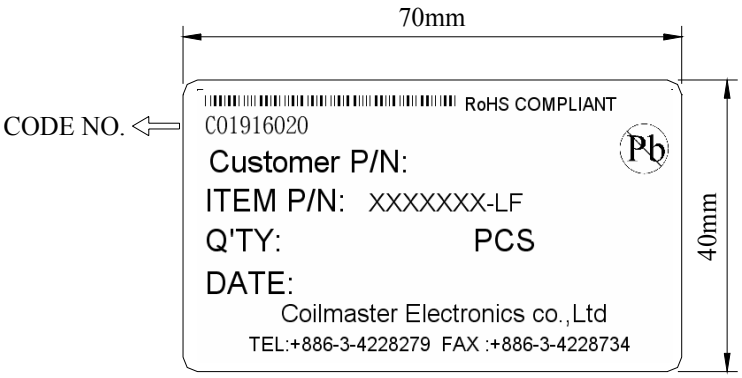
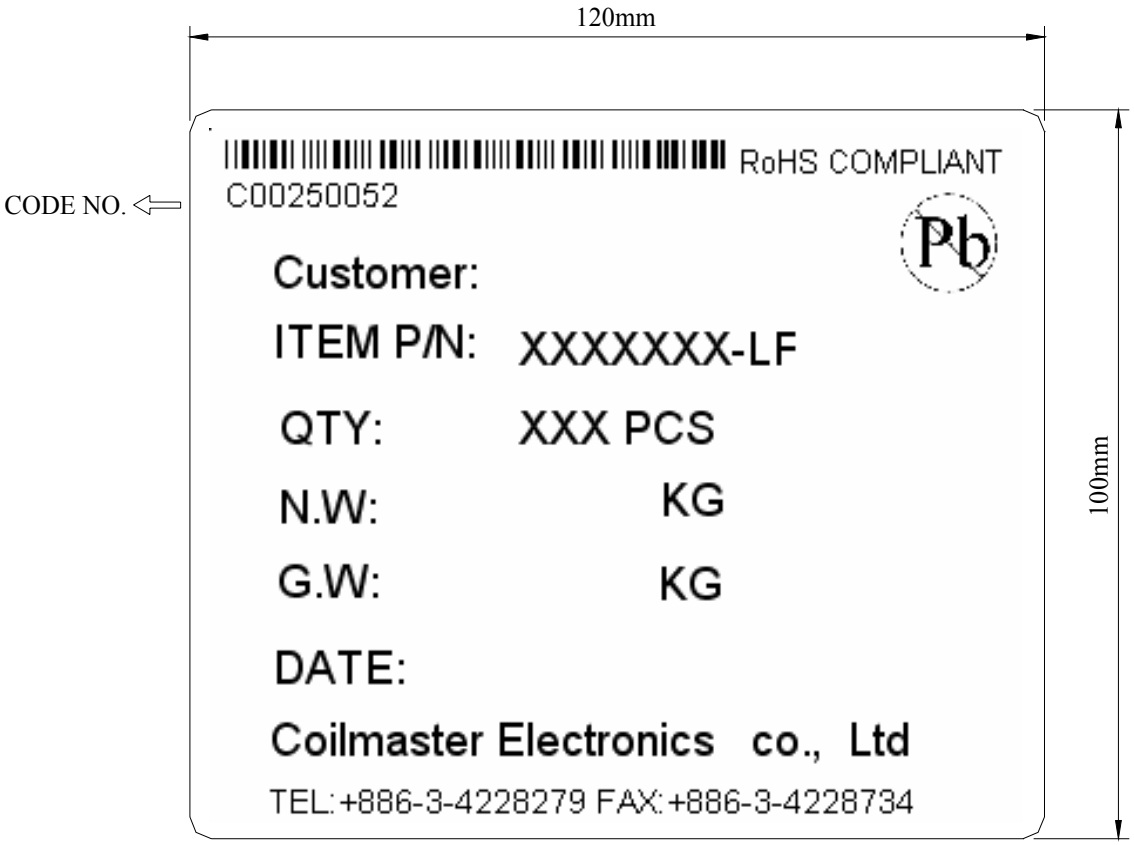
LABLE：



INNER BOX LABEL



OUT BOX LABEL

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