



Coilmaster



RoHs Compliant

SPECIFICATION APPROVAL

CUSTOMER : SIRICOM

PRODUCT : MS2520-68NJ-LF

Pb-free

CODE NO. : C01925037

CUS. CODE : COIL CRAFT: 1008CS 680XKBC

SPEC.NO. : C-1925-037(01)

DATE : 1-Sep-06

CUSTOMER APPROVAL

Coilmaster Electronics Co., Ltd.

9F-3,NO.398 HUAN BEI ROAD, CHUNG-LI CITY

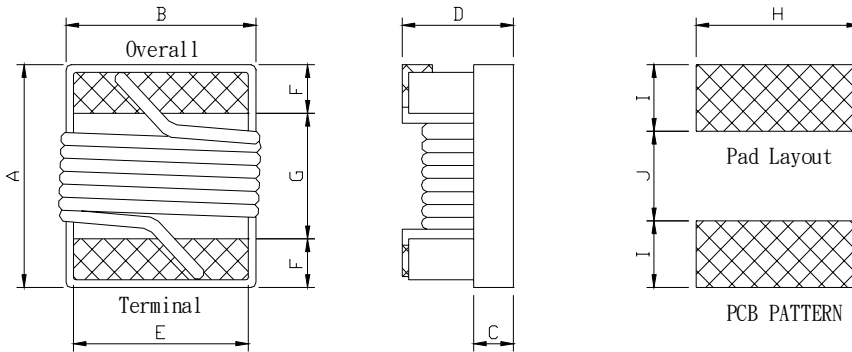
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PREPARED BY	APPROVED BY	AUTHORIZED BY
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CONFIGURATION & DIMENSIONS :



- A : 2.92 Max. m/m
- B : 2.79 Max. m/m
- C : 0.51 m/m
- D : 2.2 Max. m/m
- E : 2.03 m/m
- F : 0.51 m/m
- G : 1.52 m/m
- H : 2.54 m/m
- I : 1.02 m/m
- J : 1.27 m/m

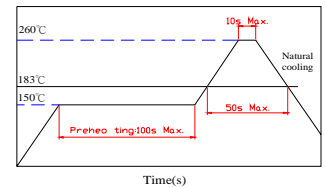
ELECTRICAL CHARACTERISTIC :

INDUCTANCE AT 50MHz : 68nH±5%
 Q : 65 Min.
 DC RESISTANCE(Ω) : 0.2 Max.
 IDC(mA) : 1000 Max.

TEST DATA

ELECTRICAL CHARACTERISTICS				DIMENSION			
MEAS. ITEM	L(nH)	SRF	DCR(Ω)	A	B	C	D
TEST FREQ	50MHz	Min.	Max.	m/m	m/m	m/m	m/m
YOUR							
SPEC.	68nH±5%	65	0.2	2.92 Max.	2.79 Max.	0.51	2.2 Max.
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
X	#DIV/0!	#DIV/0!	#DIV/0!				
R	0.00	0.00	0.00				

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TEST ITEMS	SPECIFICATIONS	TEST CONDITIONS / TEST METHODS		
<u>ELECTRICAL PERFORMANCE TEST</u>				
L	REFER TO STANDARD ELECTRICAL CHARACTERISTIC LIST.	HP-4286A WITH HP-16193 TEST FIXTURE.		
Q		HP-4286A WITH HP-16193 TEST FIXTURE.		
S.R.F.		HP-8753D		
DCR		HP-4286A		
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 20°C..		
TEMPERATURE RISE TEST	20°C MAX (Δt)	1. APPLIED THE ALLOWED DC CURRENT FOR 10 MINUTES. 2. TEMPERATURE MEASURE BY DIGITAL SURFACE THERMOMETER.		
OVER LOAD TEST	NO EVIDENCE OF ELECTRICAL DAMAGE	APPLIED 2 TIMES OF RATED ALLOWED DC CURRENT TO INDUCTORS FOR A PERIOD OF 5 MINUTES.		
WITHSTANDING VOLTAGE TEST	NO EVIDENCE OF ELECTRICAL DAMAGE	AC VOLTAGE OF 500VAC APPLIED BETWEEN COMPONENT TERMINAL AND CENTER CASE FOR 1 MINUTES.		
INSULATION RESISTANCE TEST	1000 MEGA-OHMS MIN	100 VDC APPLIED BETWEEN INDUCTOR TERMINALS AND CENTER CASE.		
<u>MECHANICAL PERFORMANCE TEST</u>				
SOLDER HEAT RESISTANCE	1. COMPONENT SHOULD HAVE NO EVIDENCE OF ELECTRICAL AND MECHANICAL DAMAGE 2. INDUCTANCE SHOULD NOT CHANGE MORE THAN $\pm 5\%$	SOLDER : TIN-SILVER-COPPER (95.5%/4.0%/0.5%) PREHEAT:150°C 100s Max. SOLDER TEMPERATURE: 260 \pm 5°C DIP TIME:10s Max.		
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		COMPONENT SHOULD BE DROPPED 10 TIMES FROM A HEIGHT OF 1m ONTO 3cm WOODEN BOARD.		



COILMASTER ELECTRONICS CO., LTD.

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<u>MECHANICAL PERFORMANCE TEST</u>				
SOLDERABILITY TEST	MORE THAN 90% OF TERMINAL ELECTRODE SHOULD BE COVERED WITH SOLDER.	PREHEAT:150°C 120s SOLDER TEMPERATURE: 260±5°C DIP TIME:10s Max.	<p>The graph shows a temperature profile over time. It starts with a preheating phase at 150°C for 120 seconds. This is followed by a dipping phase at 260°C for a maximum of 10 seconds. The temperature then undergoes natural cooling, passing through 183°C. A 50±10s dwell time is indicated during the cooling phase.</p>	
COMPONENT ADHESION (PUSH TEST)	4 lbs (ABOUT 1.8Kg)	THE DEVICE SHOULD BE REFLOW SOLDERED (260±5°C FOR 10 SECONDS) TO A TINNED COPPER SUBSTRATE. A DYNAMETER FORCE GAUGE SHOULD BE APPLIED TO THE SIDE OF THE COMPONENT. THE DEVICE MUST WITH- STAND A MINIMUM FORCE OF 1.8Kg WITHOUT AILURE OF THE TERMINATION .	<p>The diagram shows a component mounted on a glass epoxy substrate with copper cladding. A core is visible on top. A push test jig is applied to the side of the component to measure adhesion.</p>	
COMPONENT ADHESION (PULL TEST)	4 lbs (ABOUT 1.8Kg)	1.INSERT 10cm WIRE INTO THE REMAINING OPEN EYE BEND THE ENDS OF EVEN WIRE LENGTHS UPWARD AND WIND TOGETHER 2. TERMINAL SHALL NOT BEREMARKABLY DAMAGED	<p>The diagram illustrates the pull test setup where a 10cm wire is inserted into the terminal, and its ends are bent upwards and winded together.</p>	
FLEXTURE STRENGTH	THE FORCES APPLIED SHOULD NOT DAMAGE THE DIELECTRIC.	SOLDER A CHIP ON A TEST SUBSTRATE, BEND THE SUBSTRATE BY 2mm AND RETURN.	<p>The diagram shows a 100mm wide substrate with a chip soldered on top. Two 45mm segments are marked for bending. The substrate is bent by 2mm at these points.</p>	
RESISTANCE TO SOLVENT TEST	THERE SHOULD BE NO CASEDEFORMATION, CHANGE IN APPEARANCE OR BITERATION OF MARKING	INDUCTERS SHALL WITHSTAND 6 MINTES OF ALCOHOL		

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CLIMATIC TEST

TEMPERATURE CHARACTERISTIC	1. COMPONENT SHOULD HAVE NO EVIDENCE OF ELECTRICAL AND MICHANICAL DAMAGE 2. INDUCTANCE SHOULD NOT HANGE MORE THAN $\pm 10\%$	CERAMIC CORE: $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$	
HUMIDITY TEST		$50^{\circ}\text{C} \pm 2^{\circ}\text{C}$ / 96 ± 2 HOURS R.H.: 90-95%	
LOW TEMPERATURE STORAGE		1. TEMPERATURE: $-40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ 2. TIME: 48 ± 2 HOURS	
THERMAL SHOCK TEST		1. $-40 \pm 5^{\circ}\text{C}$ FOR 30 MINUTES. $+125 \pm 5^{\circ}\text{C}$ FOR 30 MINUTES. 2. TOTAL: 10 CYCLES	
HIGH TEMPERATURE STORAGE		1. APPLIED CURRENT: MAX RATED CURRENT 2. TEMPERATURE: $+125^{\circ}\text{C} \pm 2^{\circ}\text{C}$ 3. TIME: 48 ± 2 HOURS	

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

LIFE TEST

HIGH TEMPERATURE LOAD LIFE TEST	COMPONENT SHOULD BE NO EVIDENCE OF SHORT OR OPEN CIRCUIT	1. TEMPERATURE: $85 \pm 2^{\circ}\text{C}$ 2. TIME: 1000 ± 12 HOURS 3. LOAD: ALLOWED DC CURREN
HUMIDITY LOAD LIFE TEST		1. TEMPERATURE: $40 \pm 2^{\circ}\text{C}$ 2. R.H.: 90-95 % 3. TIME: 1000 ± 12 HOURS 4. LOAD: ALLOWED DC CURREN

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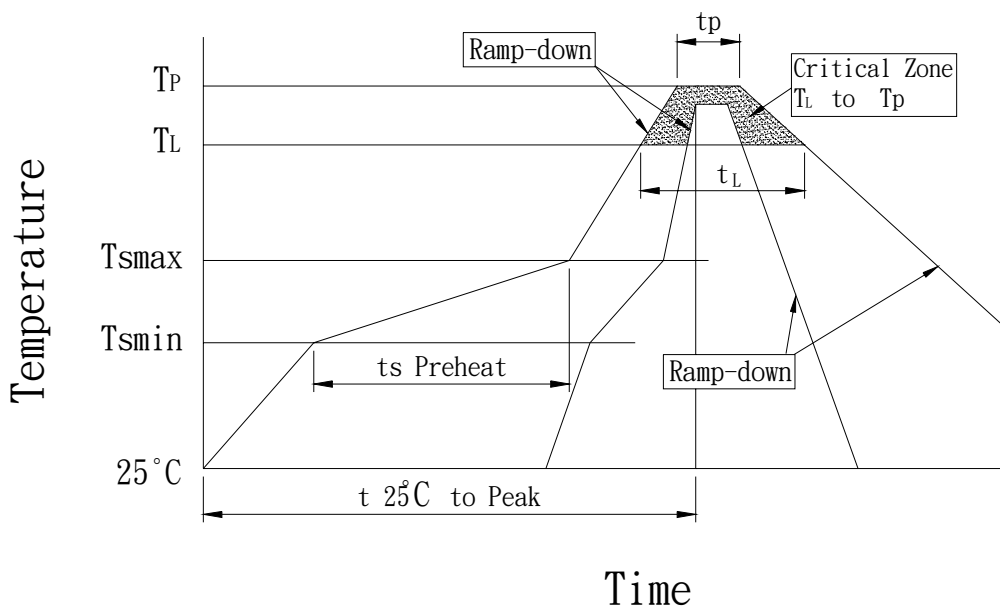
RECOMMENDED SOLDERING CONDITIONS :

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	260°C
Time within 5°C of actual Peak Temperature (t_p)	10-30 seconds	10-30 seconds	10-30 seconds	10 seconds
Ramp-down Rate	6°C/second max.		6°C/second max.	
Time 25°C to Peak Temperature	6 minutes max.		8 minutes max.	

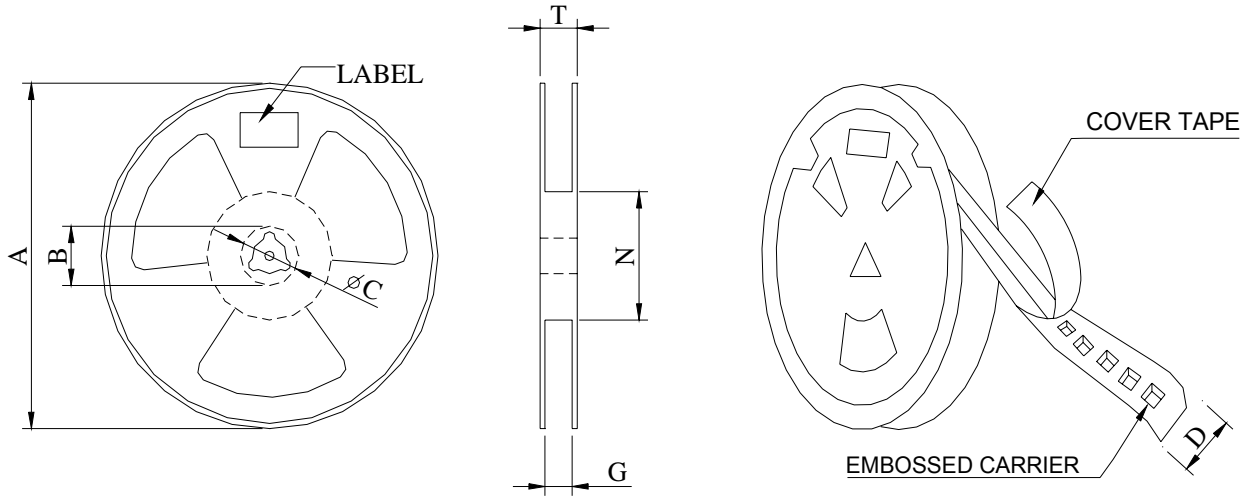
Note : All temperatures refer to top side of the package. Measured on the package body surface.

REFLOW SOLDERINGS

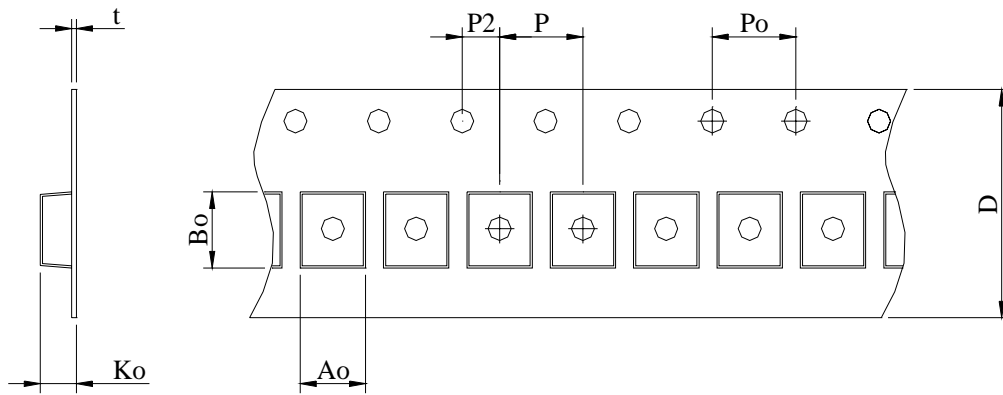


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PACKAGE :



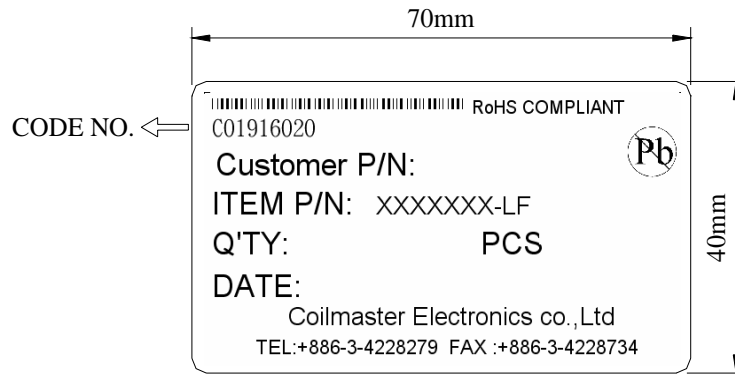
*CARRIER TAPE WIDTH : D



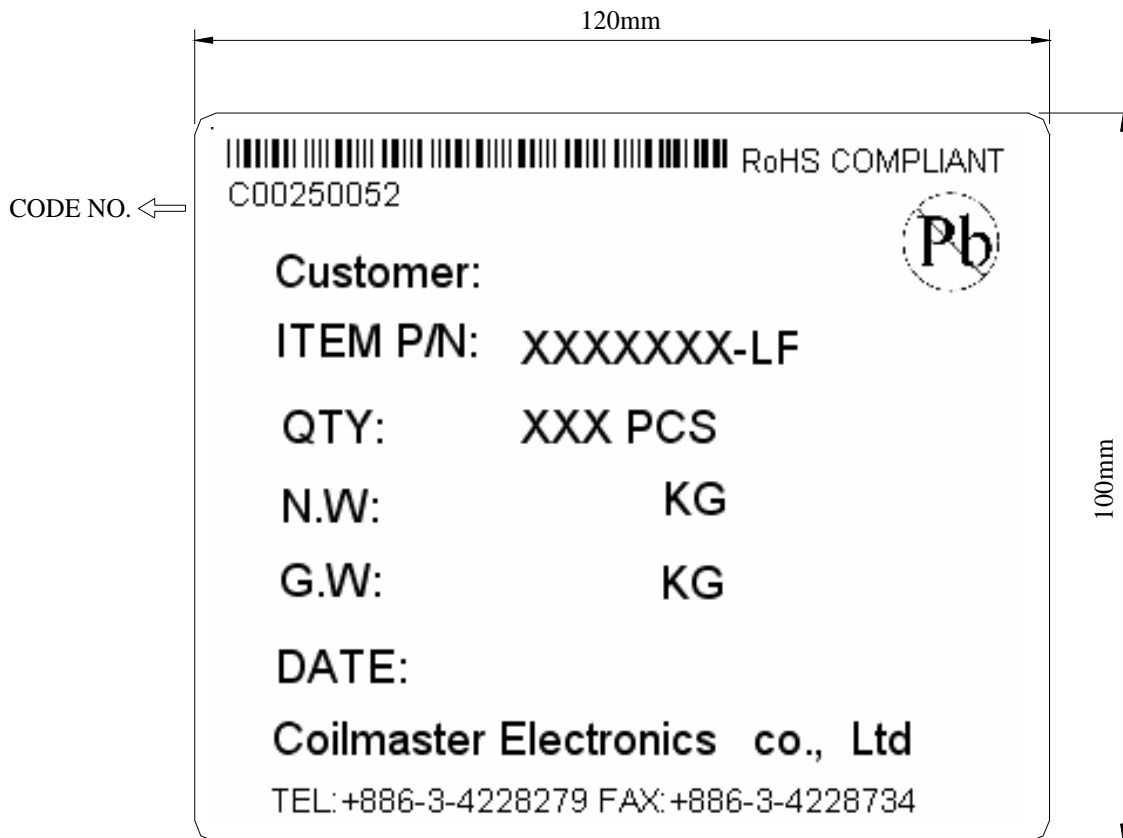
STAYLE	DIMENSIONS (m/m)														
	Q'TY (PCS)	A	B	C	D	G	N	T	Ao	Bo	Ko	t	P	Po	P2
—	2000	180	—	13	8	8.4	60	14.4	—	—	—	1	4	4	2

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TABLE :



INNER BOX LABEL



OUT BOX LABEL

COILMASTER ELECTRONICS CO., LTD.