后芮驷(上海)电子有限公司

Horus International Electronics Co., LTD.

承认书

SPECIFICATION FOR APPROVAL

编号:

品名	DESCRIPTION：	Wire Wound Chip Common Mode Choke Coil
规格	SPEC :	HRS-RCA-3216S-102T
包装	PACKAGE:	卷装
客户	CUSTOMER：	
客户料号	CUSTOMER P/N:	

APPROVED BY	
CUSTOMER	HORUS

DATA SHEET

Wire Wound Chip Common Mode Choke Coil

P/N: RCA- 3216S-102T

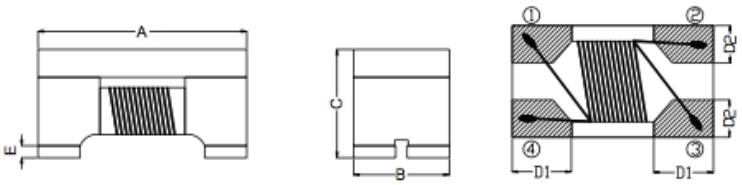
Moisture Sensitivity Level: 1

RoHS compliance.

Halogen Free available.

Qualification to AEC-Q200.

1. Paching Dimensions (mm)

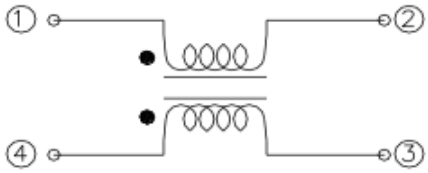


3216	Dimensions
A	3.2 ± 0.2
B	1.6 ± 0.2
C	2.0 ± 0.2
D1	0.5Typ
D2	0.5Typ

2. Part Number

RCA	—	3216S	—	102	—	T
A		B		C		D

A: Series (RCA: For Automotive Electronics)
B: Dimension A x B
C: Impedance 102=1000Ω±25%
D: Packing T=Taping and Reel



3. ELECTRICAL CHARACTERISTICS:

P/N	Z(Ω) Common Mode Impedance at 100MHz	DCR (Ω) [Max]	Rated Current Idc(mA) [Max]	Rated Voltage Vdc (V)Typical	Insulation Resistance IR (MΩ)Min.	Withstanding Voltage Vdc (V)Typical
RCA-3216S-102T	1000	0.50	500	50	10	125

Note:

Operating temperature : -40 to +125℃

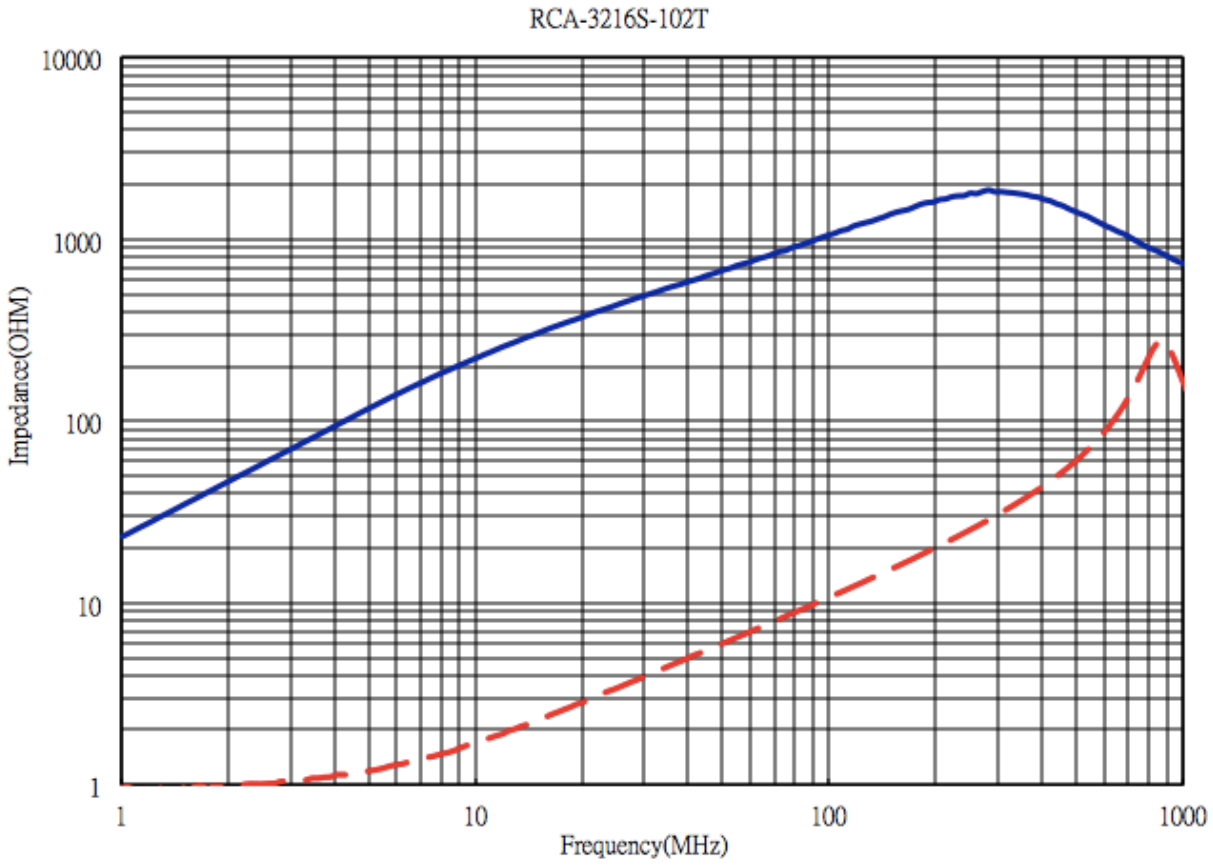
Typical Heat Rating DC Current would cause an approximately △T of 40℃

If Use Wave soldering is there will be some risk. Re-flow soldering temperatures below 240

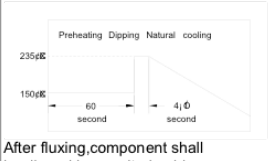
Degrees, there will be unwitting risk

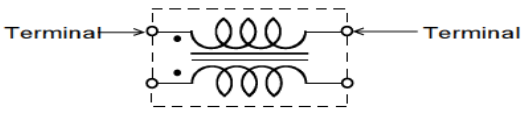
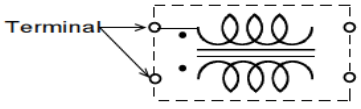
Solder standard according to IPC-A-610D 8.2.1 Chip Components - Bottom Only Termination

4. PERFORMANCE CURVES:



5. Reliabllity and Test Condition

Item	Performance	Test Condition
Operating Temperature	-40 ~125 ℃(Including self-temperature rise)	
Electrical Performance Test		
Inductance L	Refer to standard electrical characteristic list	Agilent-4291, Agilent-4287 Agilent-4192, Agilent-4285
Q		
SRF		Agilent-4291
DC Resistance		Agilent-4338
Rated Current	Base on temp. rise & △L/L0A≦30%.	Saturation DC Current (Isat) will cause L0 to drop approximately △L(%).
Temperature Rise Test	ΔT 40 Max	Heat Rated Current (Irms) Willcausethecoil temperature rise approximately △T(℃) without core loss. 1.Applied the allowed DC current. 2.Temperature measured by digitalsurfacethermometer
Mechanical Performance Test		
Resistance to Soldering Heat MIL-STD-202 METHOD 210	1. Inductors shall be no evidence of electrical and mechanical damage. 2. Inductance : within ±10% of initial value	Temp.: 260±5℃ Time: 10±1.0 Sec
Solderability Test ANSI/J-STD-002	More than 95% of terminal electrode should be covered with solder.	 After fluxing,component shall be dipped in a melted solder bath at 235±5℃ for 4±1seconds.

No.	Item	Terminal to be Tested
1	Impedance (|Z|) (Measurement Terminal)	
2	DC Resistance (Rdc) (Measurement Terminal)	
3	Insulation Resistance (I.R.) (Measurement Terminal)	
4	Withstanding Voltage (Measurement Terminal)	
5	Humidity Load (Supply Terminal)	
6	Heat Life (Supply Terminal)	

6. Soldering and Mounting

1. Soldering

Mildly activated rosin fluxes are preferred.terminations are suitable for all wave and re-flow soldering systems. If hand soldering cannot be avoided, the preferred technique is the utilization of hot air soldering tools.

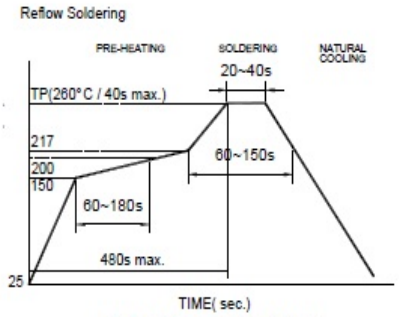
1.1 Solder re-flow:

Recommended temperature profiles for re-flow soldering in Figure 1.

1.2 Soldering Iron(Figure 2):

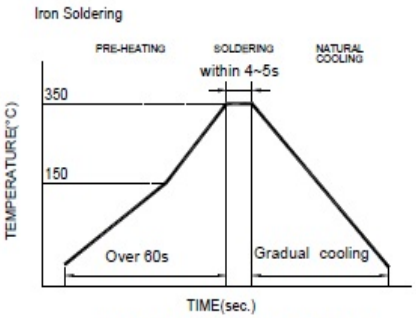
Products attachment with a soldering iron is discouraged due to the inherent process control limitations. In the event that a soldering iron must be employed the following precautions are recommended.

- **Preheat circuit and products to 150°C**
- **355°C tip temperature (max)**
- **Never contact the ceramic with the iron tip**
- **1.0mm tip diameter (max)**
- **Use a 20 watt soldering iron with tip diameter of 1.0mm**
- **Limit soldering time to 4~5 sec.**



Reflow times: 3 times max.

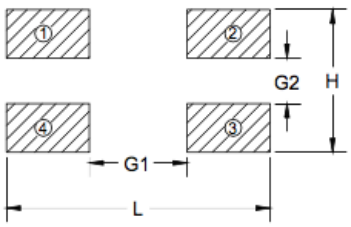
Fig.1



Iron Soldering times: 1 times max.

Fig.2

Recommended PC Board Pattern(mm)

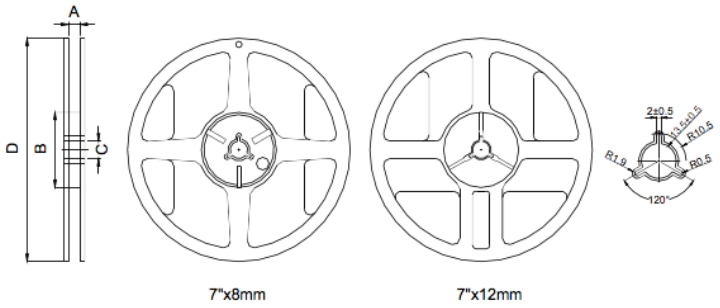


	3216
L	3.7
H	1.6
G1	1.9
G2	0.4

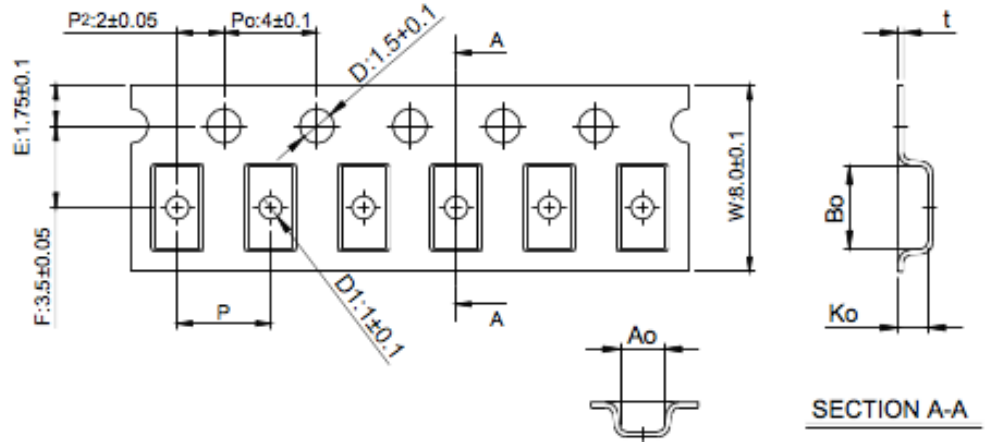
7.Packaging Information

Packaging Quantity: 2000pcs/Reel

Reel Dimension:



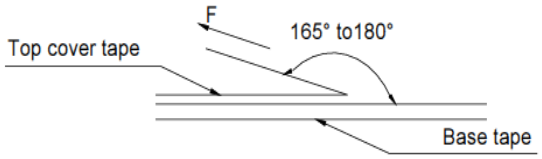
Type	A(mm)	B(mm)	C(mm)	D(mm)
7"x8mm	9.0±0.5	60±2	13.5±0.5	178±2



Part Number	Bo ±0.1	Ao±0.1	Ko±0.1	P±0.1	t±0.05
RCA-3216S	4	2	2.1	4.00	0.2

單位:mm

Tearing Off Force



The force for tearing off cover tape is 15 to 80 grams in the arrow direction under the following conditions.

Room Temp. (℃)	Room Humidity (%)	Room atm (hPa)	Tearing Speed mm/min
5~35	45~85	860~1060	300

Application Notice

- Storage Conditions

  To maintain the solderability of terminal electrodes:

  1. products meet IPC/JEDEC J-STD-020D standard-MSL, level 1.
  2. Temperature and humidity conditions: Less than 40℃ and 60% RH.
  3. Recommended products should be used within 12 months form the time of delivery.
  4. The packaging material should be kept where no chlorine or sulfur exists in the air.

- Transportation

  1. Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
  2. The use of tweezers or vacuum pick up is strongly recommended for individual components.
  3. Bulk handling should ensure that abrasion and mechanical shock are minimized.

Modify records

Version	Page	Description
V01	N/A	New issued