



产品承认书
SPECIFICATION FOR APPROVAL

客户名称:

CUSTOMER

我司料号:

OUR PART NO.

XRACT4532B-201-2P-T

我司品名:

OUR PART NAME

Wire Wound Type Common Mode Filter

送样日期:

DATE SAMPLES

数量:

QUANTITY

制造确认 MANUFACTURER APPROVE

拟制 DRAWN	审核 CHECKED	确认 APPROVED
Hu Fangting	RaoPing	LiZhengxiong

客户确认 CUSTOMER APPROVE

客户名称 CUSTOMER NAME:

客户料号 CUSTOMER P/N:

规格型号 DESCRIPTION:

XRACT4532B 200uH +60/-30% 100mA

检查结果: 合格 不合格

签名及盖章:

INSPECT RESULT ACCEPT REJECT

SIGNATURE AND STAMP

说明 REMARK:

如对本承认书内容有异议请提出或标记发送至我司，本承认书在未收到异议回复时于本承认书提供一周后生效。

If you have any objection to the contents of this acknowledgment, please raise it or send the mark to us.
The acknowledgment will become effective one week after the acknowledgment is provided in the absence of any objection.

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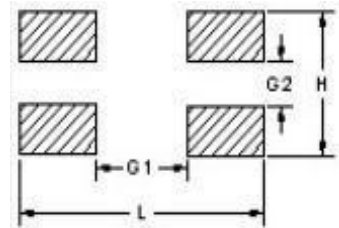
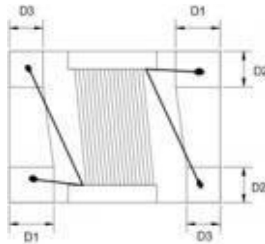
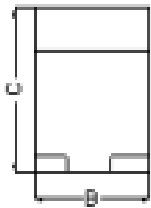
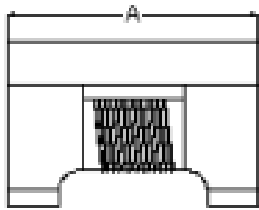
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客户名称 CUSTOMER		日期 DATE	2024/6/21
客户物料编号 CUSTOMER P/N		客户规格型号 DESCRIPTION	XRACT4532B 200uH +60/-30% 100mA
我司物料编号 OUR PART NO	XRACT4532B-201-2P-T	我司品名 OUR PART NAME	Wire Wound Type Common Mode Filter

外观尺寸 Appearance of size

单位 Unit: mm

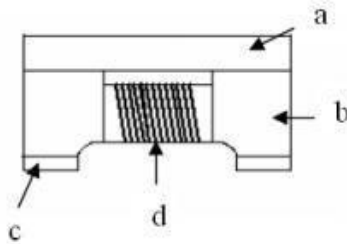
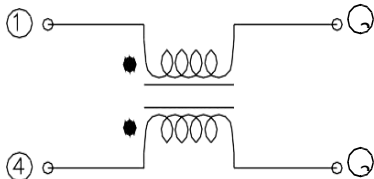
Recommended PC Board Pattern:



Part No.	A	B	C	D1	D2	D3	L	H	G1	G2
XRACT4532B	4.5±0.2	3.2±0.2	2.8±0.2	0.75±0.2	0.85±0.2	0.60±0.2	5.0	3.6	3.4	1.7

Schematic Diagram:

Materials:



N0.

Specification

a

Upper Plate

Ferrite

b

Core

Ferrite Core

c

Termination

Ag/Ni/Sn

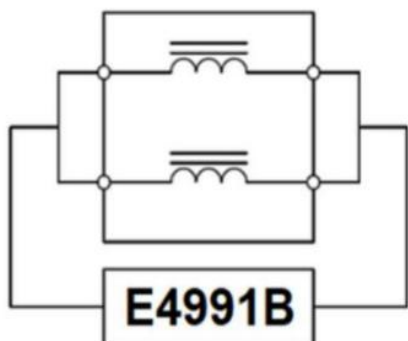
d

Wire

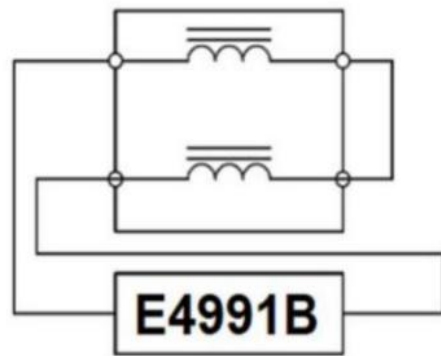
Enameled
Copper Wire

MEASURING CIRCUITS 2LINE:

Common mode



Differential mode





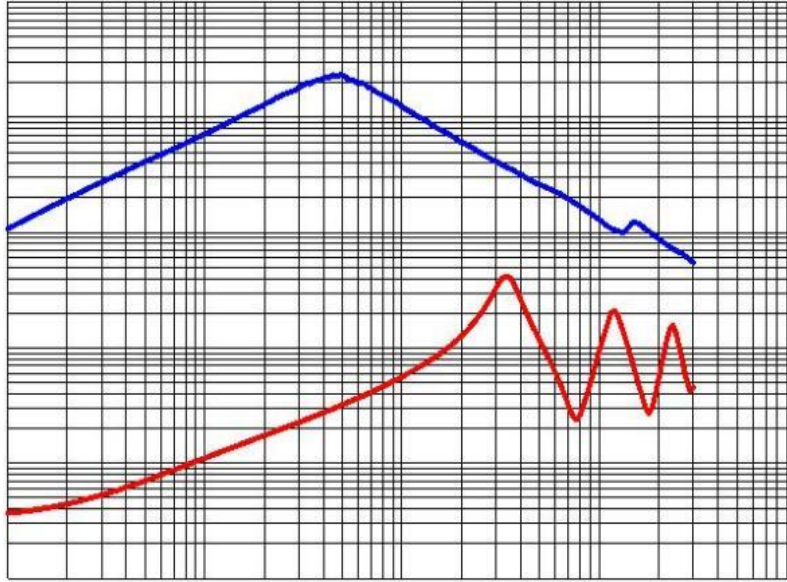
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电性能参数 Electrical Performance Parameters:

Part No.	Inductance (μ H)+60/-30% [100kHz/0.1V]	DC Resistance (Ω) max.	Rated Current (mA)	Rated Volt. (Vdc)	IR (Ω) min.
XRACT4532B-201-2P-T	200	4.5	100	50	10M

4.Specification:



Application Notice:

.Storage Conditions(component level)

To maintain the solderability of terminal electrodes:

1. A & F products meet IPC/ JEDEC J-STD-020 D standard-MSL, level 1.
2. Temperature and humidity conditions: Less than 40 $^{\circ}$ C 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.



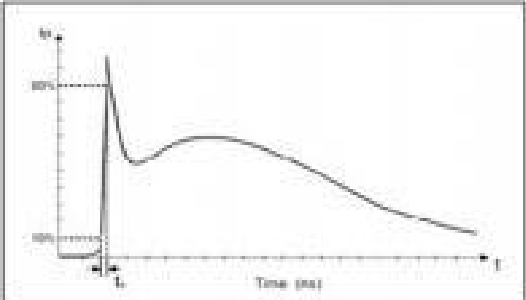
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5. Reliability and Test Condition		
Item	Performance	Test Condition
Operating temperature	-20~+125℃(Including self - temperature rise)	
Storage temperature	-20~+125℃(on board)	
Electrical Performance Test		
L(common mode)	Refer to standard electrical characteristics list.	Agilent-4291A+ Agilent -16197A
DCR		Agilent-4338B
I.R.		Agilent4339
Temperature Rise Test	Rated Current < 1A ΔT 20℃Max Rated Current \geq 1A ΔT 40℃Max	1.Applied the allowed DC current. 2.Temperature measured by digital surface thermometer
Reliability Test		
High Temperature Exposure(Storage)	Appearance: No damage. Impedance: within\pm15% of initial value Inductance: within\pm10% of initial value Q: Shall not exceed the specification value. RDC: within \pm15% of initial value and shall not exceed the specification value	Preconditioning: Run through IR reflow for 2 times.(IPC/JEDEC J-STD-020DClassification Reflow Profiles Temperature : 125\pm2℃ Duration : 1000hrs Min. Measured at room temperature after placing for 24\pm2 hrs
Temperature Cycling		Preconditioning: Run through IR reflow for 2 times.(IPC/JEDEC J-STD-020DClassification Reflow Profiles Condition for 1 cycle Step1 : -20\pm2℃ 30min Min. Step2 : 125\pm2℃ transition time 1min MAX. Step3 : 125\pm2℃ 30min Min. Step4 : Low temp. transition time 1min MAX. Number of cycles : 1000 Measured at room temperature after placing for 24\pm2 hrs
Moisture Resistance		Preconditioning: Run through IR reflow for 2 times.(IPC/JEDEC J-STD-020DClassification Reflow Profiles 1.Baked at50℃ for 25hrs, measured at room temperature after placing for4 hrs. 2.Raise temperature to 65\pm2℃ 90-100%RH in 2.5hrs, and keep 3 hours, cool down to 25℃ in 2.5hrs. 3.Raise temperature to 65\pm2℃ 90-100%RH in 2.5hrs, and keep 3 hours, cool down to 25℃ in 2.5hrs,keep at 25℃ for 2hrs then keep at - 10℃ for 3hrs Keep at 25℃ 80-100%RH for 15min and vibrate at the frequency of 10 to 55 Hz to 10 Hz, measure at room temperature after placing for 1~2 hrs
Biased Humidity		Preconditioning: Run through IR reflow for 2 times.(IPC/JEDEC J-STD-020DClassification Reflow Profiles Humidity : 85\pm3%R.H, Temperature : 85℃\pm2℃ Duration : 1000hrs Min Measured at room temperature after placing for24\pm2hrs

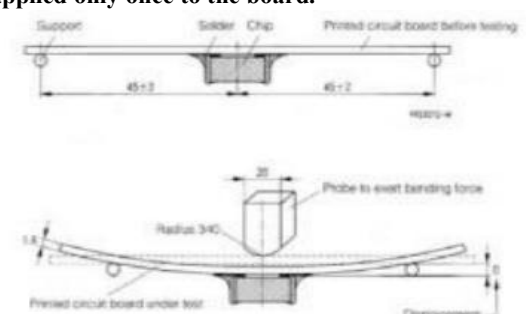
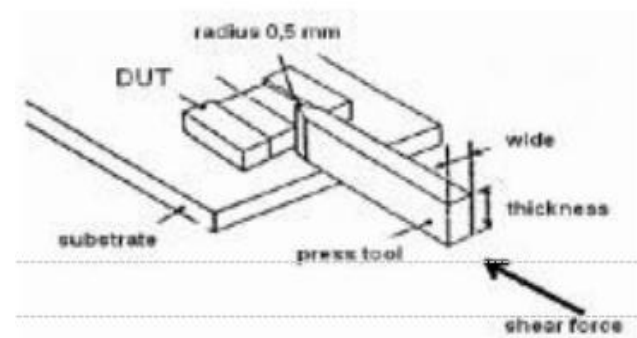
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Item	Performance	Test Condition				
High Temperature Operational Life	Appearance: No damage. Impedance: within±15% of initial value Inductance: within±10% of initial value Q: Shall not exceed the specification value. RDC: within ±15% of initial value and shall not exceed the specification value	Preconditioning: Run through IR reflow for 2 times.(IPC/JEDEC J-STD-020DClassification Reflow Profiles Temperature : 125±2℃ Duration : 1000hrs Min. with 100% rated current. Measured at room temperature after placing for24±2hrs				
External Visual	Appearance: No damage.	Inspect device construction, marking and workmanship. Electrical Test not required.				
Physical Dimension	According to the product specification size measurement	According to the product specification size measurement				
Resistance to Solvents	Appearance: No damage.	Add aqueous wash chemical - OKEM clean or equivalent.				
Mechanical Shock	Appearance: No damage. Impedance: within±15% of initial value Inductance: within±10% of initial value Q: Shall not exceed the specification value. RDC: within ±15% of initial value and shall not exceed the specification value	Type	Peak value (g's)	Normal duration (D) (ms)	Wave form	Velocity change (Vi)ft/sec
		SMD	100	6	Half-sine	12.3
		Lead	100	6	Half-sine	12.3
shocks in each direction along 3 perpendicular axes.						
Vibration		IPC/JEDEC J-STD-020DC~lass ification Reflow Profiles Oscillation Frequency: 10 2K~ 10Hz for 20 minute Equipment: Vibration checker Total Amplitude:1.52mm±10% Testing Time : 12 hours(20 minutes, 12 cycles each of 3 orientations)				
Resistance to Soldering Heat	Appearance: No damage. Impedance: within±15% of initial value Inductance: within±10% of initial value Q: Shall not exceed the specification value. RDC: within ±15% of initial value and shall not exceed the specification value	Test condition :				
		Temperature(℃)	Time (s)	Temperature ramp/immersion and emersion rate	Number of heat cycles	
		260±5(soldertemp)	10±1	25mm/s ±6 mm/s	1	
Thermal shock		Preconditioning: Run through IR reflow for 2 times.(IPC/JEDEC J-STD-020DClassification Reflow Profiles Condition for 1 cycle Step1 : -55±2℃ 15±1min Step2 : 150±2℃ within 20Sec. Step3 : 150±2℃ 15±1min Number of cycles: 300 Measured at room femprature after placing fo24±2hrs				
ESD	Appearance: No damage.					

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Item	Performance	Test Condition
Solderability	More than 95% of the terminal electrode should be covered with solder.	a.Method B, 4 hrs @155°C dry heat @235°C±5°C b.Method B @ 215°C±5°C category 3.(8hours ± 15 min) c.Method D category 3. (8hours ± 15 min)@ 260°C±5°C Preheat: 150 °C,60sec. Solder: Sn96.5% Ag3% Cu0. 5% Temperature: 245±5°C。 Flux for lead free: Rosin. 9.5%。 Dip time: 4±1sec. Depth: completely cover the termination
Electrical Characterization	Refer Specification for Approval	Summary to show Min, Max, Mean and Standard deviation .
Flammability	Electrical Test not required.	V-0 or V-1 are acceptable.
Board Flex	Appearance: No damage	<p>Preconditioning: Run through IR reflow for 2 times.(IPC/JEDEC J-STD-020D Classification Reflow Profiles Place the 100mm X 40mm board into a fixture similar to the one shown in below Figure with the component facing down. The apparatus shall consist of mechanical means to apply a force which will bend the board (D) x = 2 mm minimum. The duration of the applied forces shall be 60 (+ 5) sec. The force is to be applied only once to the board.</p> 
Terminal Strength(SMD)	Appearance: No damage	<p>Preconditioning: Run through IR reflow for 2 times.(IPC/JEDEC J-STD-020D Classification Reflow Profiles With the component mounted on a PCB with the device to be tested, apply a 17.7 N (1.8 Kg) force to the side of a device being tested. This force shall be applied for 60 +1 seconds. Also the force shall be applied gradually as not to apply a shock to the component being tested.</p> 

6. Soldering and Mounting

6-1 . Soldering:

Mildly activated rosinfluxes are preferred. A&F 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.

6-1.1 Solder re-flow:

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

6-1.2 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
diameter of 1.0mm

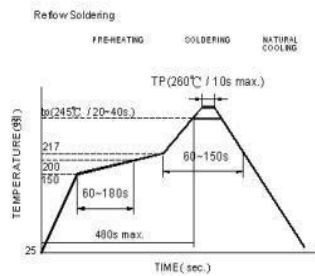
.Never contact the ceramic with the iron tip

.Use a 20 watt soldering iron with tip

.350°C tip temperature (max)

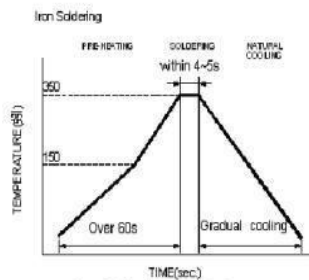
.1.0mm tip diameter (max)

.Limit soldering time to 4~5 sec.



Reflow times: 3 times max.

Fig.1

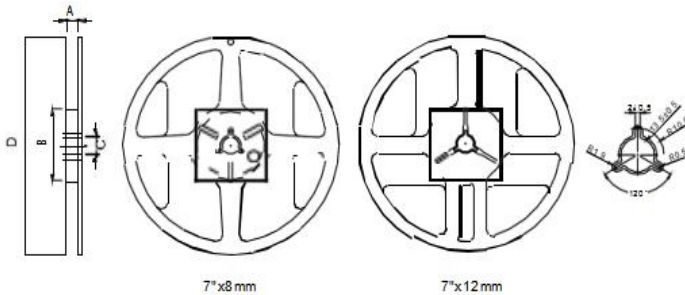


Iron Soldering times: 1 times max.

Fig.2

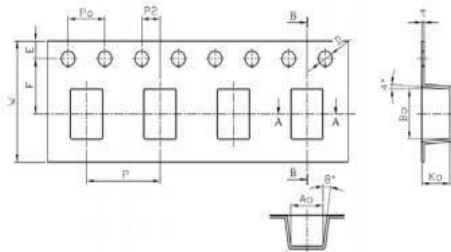
7. Packaging Information

7-1 . Reel Dimension



Type	A(mm)	B(mm)	C(mm)	D(mm)
7"x12mm	13.5±0.5	60±2	13.5±0.5	178±2

7-2. Tape Dimension / 12 mm



Series	P(mm)	Po(mm)	P2(mm)	Bo(mm)	Ao(mm)	Ko(mm)	D(mm)	E(mm)	F(mm)	W(mm)	t(mm)
ACM4532F2N	8.00±0.10	4.00±0.10	2.00±0.05	4.90±0.10	3.60±0.10	3.00±0.10	1.05+0.10/-0.00	1.75±0.10	5.50±0.05	12.00±0.10	0.26±0.05

7-3 . Packaging Quantity

Chip size	Chip/Reel	Inner Box	Middle Box	Carton
ACM4532F2N	500	2500	12500	25000