

零件承认书

SPECIFICATION FOR APPROVAL

客户名称：001

增益型号：ZYI321611U601-3R0T

规格描述：超大电流叠层磁珠1206 600Ω 3A电流

日期：2024/12/01

版本：A

增益签核：

制订	审核	核准
夏琳		李万

客户签核：

工程	审核	核准



东莞市增益实业有限公司

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电话：0769-87321000

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物料类型：

叠层磁珠

日期：

2024/12/01

版本：

A



■ Features

- High density packaging with a pitch of 2.54mm(0.1 inch) max. is possible.
This series requires less space and has greater EMI suppression effects.
- Different types with the same shape are available.
- Excellent in physical properties, such as terminal strength, flexure strength, soldering resistance and solderability.
- Applicable to both flow and reflow soldering.
- High impedance cover wide frequency ranges.
- YI series can be used in high current circuits due to its low DC resistance.
- Operating temperature: $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$.

■ Applications

- Computers and peripheral devices, personal computers, VCR and cameras.
- Noise suppression in digital equipments, car stereo, car engines controllers and OA electronic instruments.
- Communication equipment.

■ Product Identification

$\frac{\text{ZYI}}{(1)} \quad \frac{\square\square\square\square\square\square}{(2)} \quad \frac{\square}{(3)} \quad \frac{\square\square\square}{(4)} - \frac{\square\square\square\square}{(5)}$

(1) : Type

(2) : Dimensions

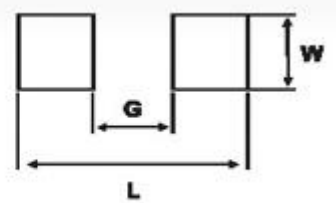
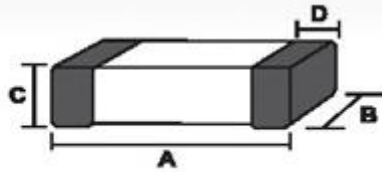
(3) : Material Code

(4) : Impedance

(5) : Rated Current



■ Shapes and Dimensions (Unit: mm)



TYPE	A	B	C	D	L	W	G
ZYI321611	3.2±0.2	1.6±0.2	1.1±0.2	0.5±0.3	4.40	1.80	1.20

■ Electrical Requirements

Part Number	Impedance(Ω) ±25%	Test Freq. (MHz)	DCR MAX. (Ω)	Rating Current MAX (A)
ZYI321611U601-3R0T	600	100	0.055	3.0

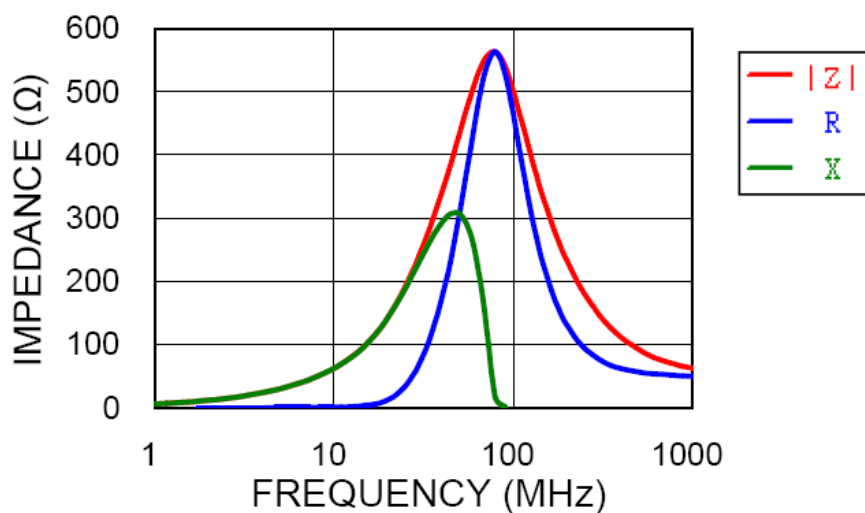
TEST INSTRUMENTS:

HP 4338A MILLIOHMMETER

HP 4291B RF IMPEDANCE/MATERIAL ANALYZER

■ Impedance VS. Frequency characteristic

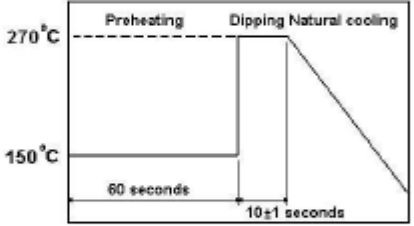
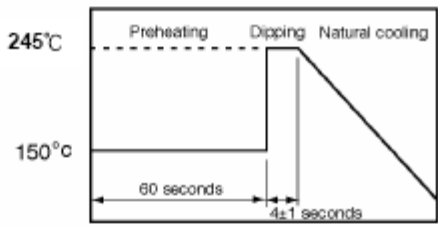
Typical Impedance Characteristics : HP 4291B





Multilayer Ferrite Chip Beads

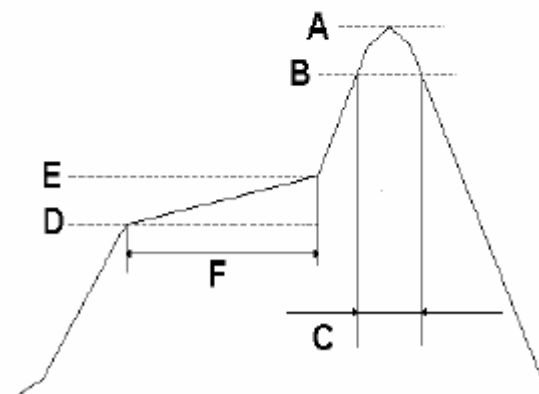
■ Reliability test

Item	Performance	Test condition
Operating temperature range	-55 °C to + 125 °C	
Storage temperature and umidity ranges	40 °C MAX., 70% RH MAX.	
Soldering heat resistance	The chip shall not be cracks. More than 75% of terminal electrode shall be covered with solder.	Preheat: 150 °C, 60 seconds Solder temperature : 270 ± 5 °C Flux: Rosin Dip time: 10 ± 1 seconds 
Solderability	More than 90% of the terminal electrode shall be covered with new solder.	Preheat: 150 °C, 60 seconds Solder temperature: 245 ± 5 °C Flux: Rosin Dip time: 4 ± 1 seconds 

Recommended Soldering Conditions

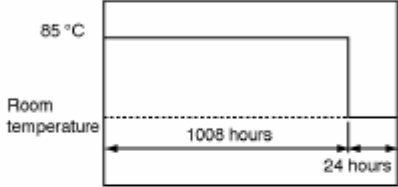
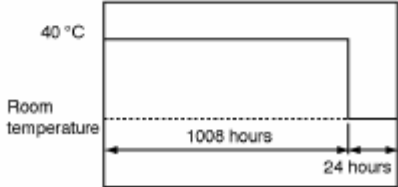
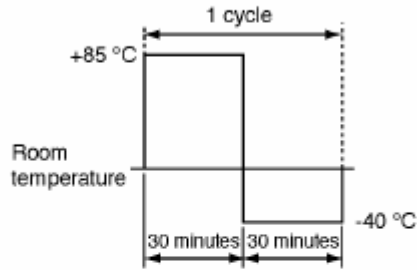
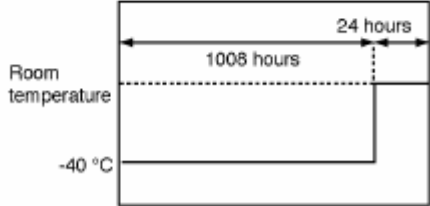
(REFLOW TEMPERATURE PROFILE) **Lead-Free**

A	$260 \pm 5^{\circ}\text{C}$
B	$230 \pm 5^{\circ}\text{C}$
C	$30 \pm 10 \text{ sec}$
D	150°C
E	180°C
F	$90 \pm 30 \text{ sec}$



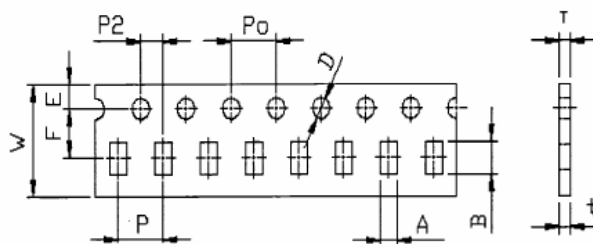


■ Reliability test

Item	Performance	Test condition
High temperature resistance	Appearance: Ferrite shall not be damaged. Impedance: Within $\pm 20\%$ of the initial value.	Temperature: $85\pm 2^{\circ}\text{C}$ Testing time: 1008 ± 12 hours Measurement: After placing for 24 hours min. 
Humidity resistance	Appearance: Ferrite shall not be damaged. Impedance: Within $\pm 20\%$ of the initial value	Humidity: 90 to 95% RH Temperature: $40\pm 2^{\circ}\text{C}$ Testing time: 1008 ± 12 hours Measurement: After placing for 24 hours min. 
Thermal Shock	Appearance: Cracking, chipping or any other defects harmful to the characteristics shall not be allowed. Impedance: Within $\pm 20\%$ of the initial value	Temperature: -40°C , $+85^{\circ}\text{C}$, kept stabilized for 30 minutes each Cycle: 100 cycles Measurement: After placing for 24 hours min. 
Low temperature storage life test	Appearance: Cracking, chipping or any other defects harmful to the characteristics shall not be allowed. Impedance: Within $\pm 20\%$ of the initial value.	Temperature: $-40\pm 2^{\circ}\text{C}$ Testing time: 1008 ± 12 hours Measurement: After placing for 24 hours min. 



Carrier tape material: paper



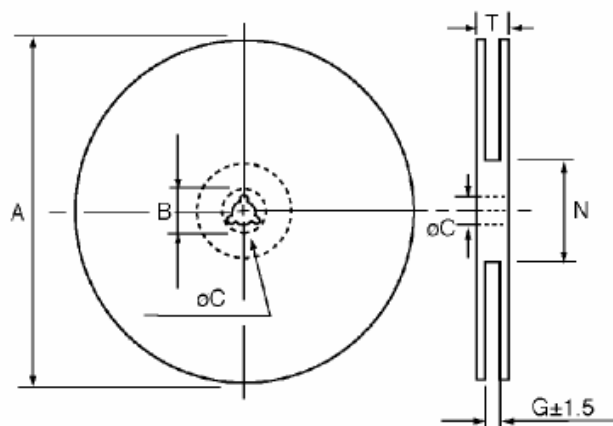
Material:Paper						
TYPE	A	B	W	P	T	CHIPS/REEL
100505	0.62	1.12	8	2	0.60	10000
160808	1.10	1.90	8	4	0.95	4000
201209	1.50	2.30	8	4	0.95	4000
Material:Polystyrene						
TYPE	A	B	W	P	T	CHIPS/REEL
160808	1.01	1.80	8	4	1.02	4000
201209	1.42	2.25	8	4	1.04	4000
201212	1.50	2.35	8	4	1.45	4000
321611	1.88	3.50	8	4	1.27	4000
322513	2.77	3.42	8	4	1.55	2000
451616	1.93	4.95	12	4	1.93	2000
453215	3.66	4.95	12	8	1.85	1000



Multilayer Ferrite Chip Beads

■ Reel Dimensions(Unit:mm)

Material:Paper, Plastic



TYPE	8mm	12mm
A	178 $\pm$ 2	178 $\pm$ 2
B	21.0 $\pm$ 0.8	21.0 $\pm$ 0.8
C	13.0 $\pm$ 0.8	13.0 $\pm$ 0.8
G	10.0	14.0
N	75	75
T	12.5	16.5

■ Direction of rolling

