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Date of Issue : October 03,2000

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Classification: ☒ New ☐ Change ☐ Renewal

Digi-Key

納入仕様書

PRODUCT SPECIFICATION FOR INFORMATION

製品名称 : Voltage step-up coil
Product Description

製品品番 : ELT3KN128B,104B,121B,123B,131B,118B,124B
Product Part Number

松下品番 : ELT3KN128B,104B,121B,123B,131B,118B,124B
Matsushita Part Number

適用(使用機種等) :
Applications

上記以外の適用に際しては,事前に弊社担当者までご連絡ください。
For other applications,contact our person signed below.

製造部署 : Tajima Matsushita Electric Co.,Ltd
Manufactured by

本仕様書の有効期間 : 発行日から 2005年 10月 02日 まで有効とします。
Term of Validity : October 02,2005 from the date of issue

お客様ご使用欄 CUSTOMER USE ONLY

この書類を確かに受領しました。
This was certainly received by us.

松下電子部品株式会社
変成器事業部

Matsushita Electronic Components Co.,Ltd.
Power Supply And Inductive Products Division

〒515-8555 三重県松阪市上川町2460-1
2460-1, Uegawa, Matsusaka,Mie 515-8555, Japan

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発行部署名 Prepared by

但馬松下電器株式会社

Tajima Matsushita Electric Co., Ltd.

Tel (0796)52-3181
Fax (0796)52-5706

責任者 Approved	検印 Checked	担当者 Designed
<i>T. Yodanis</i>	<i>S. Morimoto</i>	<i>H. Baba</i>

1. この製品の使用材料は、「化学物質の審査及び製造等の規制に関する法律」に基づき、すべて既存化学物質として記載されている材料です。

All the materials used in this product are registered material under the Law Concerning the Examination and Regulation of Manufacture, etc. of Chemical Substances.

2. 本製品は、モントリオール議定書で規制されているオゾン層破壊物質(ODC)を製造工程及び購入部品・材料で一切使用していません。

This product has not been manufactured with any ozone depleting chemical controlled under the Montreal Protocol.

3. この製品に使用している全ての材料には、臭素系特定難燃物質「PBBOs、PBBs」を含有していません。

All the materials used in this product contain no brominated materials of PBBOs or PBBs as the flame-retardant.

4. 納入仕様書の「有効期間」について
有効期間は、特に、申し出のない限り(お客様の要望を含み)自動更新とします。
その際、連絡書・仕様書は、発行致しません。

"The Term of Validity" of Product Specifications for Information
Unless otherwise requested (including from customer), the term of validity shall be renewed automatically.

Then , informations and specifications shall be not issued.

SPECIFICATIONS

151-ELT3KN128B (R-0)

Name

FIXED INDUCTOR (VOLTAGE STEP-UP COIL)

1 - 1

Customer's No.

Matsushita's No.

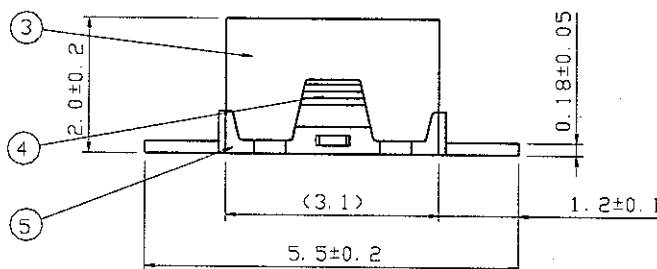
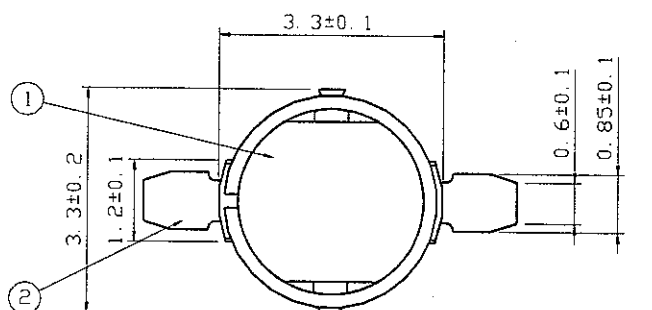
Tentative No.

ELT3KN128B

ELT3KN128B

SLT3KN1140

1. APPEARANCE AND DIMENSIONS (Unit:mm)



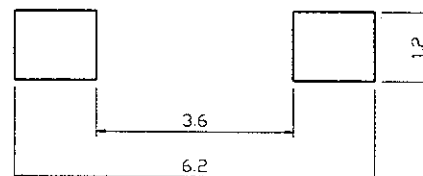
PART NAME	MATERIAL
1 Core	Ferrite
2 Terminal	Cu-Ni-Sn alloy
3 Ring	Cu-Ni-Sn alloy
4 Coil	Polyurethan Enameled Copper Wire
5 Board	Liquid crystal polyester

[WINDING SPEC]

Type of wire 3UEWH- ϕ 0.034

Number of turns 185.5T

[MOUNTING DETAILS]



2. ELECTRICAL CHARACTERISTICS

Operating Temperature	-20 ~ +85°C
Inductance	560.0 μ H $\pm$ 10% (at 1 kHz)
DC Resistance	15.0 Ω $\pm$ 15% (at 25 °C)
Rated Current	45.0 mA

3. INDUCTANCE MEASUREMENT METHOD (by LCR METER:YHP4262A)

1. Measurement Frequency:1[kHz]

2. Circuit Mode:Series

3. Inductance Measurement Range

Measurement Range	100 μH	1000 μ H	10 mH	100 mH
OSC Level	40 mA	10 mA	1 mA	100 μA

No.	Date	Revisions	Checked

[Notes]

Item No.4 and No.5 depends on common spec.
(No.151-ELT3KN04)

DATE ESTABLISHED: 27. Oct. '99

Approved

Checked

Designed

K. Yoshizawa

Y. Nakajima

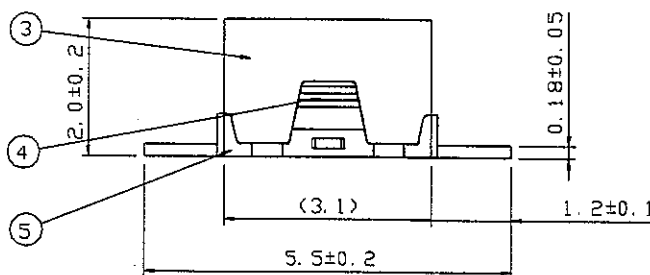
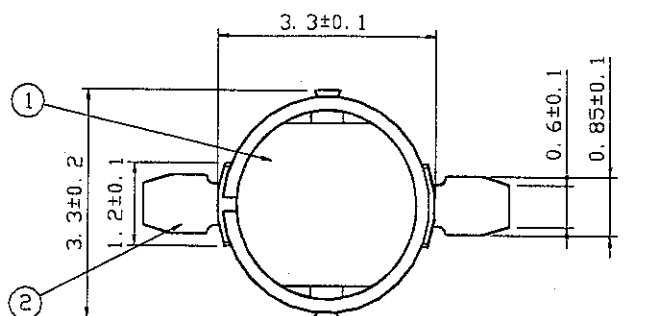
H. Baba

SPECIFICATIONS

151-ELT3KN104B (R-0)

Name FIXED INDUCTOR (VOLTAGE STEP-UP COIL)		1 - 1
Customer's No. ELT3KN104B	Matsushita's No. ELT3KN104B	Tentative No.

1. APPEARANCE AND DIMENSIONS (Unit:mm)



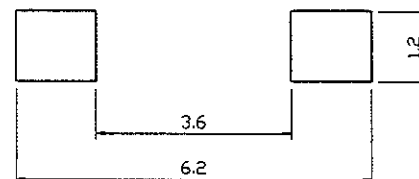
PART NAME	MATERIAL
1 Core	Ferrite
2 Terminal	Cu_Ni_Sn alloy
3 Ring	Cu_Ni_Sn alloy
4 Coil	Polyurethan Enameled Copper Wire
5 Board	Liquid crystal polyester

[WINDING SPEC]

Type of wire 2UEWH- ϕ 0.030

Number of turns 265.5T

[MOUNTING DETAILS]



2. ELECTRICAL CHARACTERISTICS

Operating Temperature	-20~+85°C
Inductance	1.0mH $\pm$ 10% (at 1 kHz)
DC Resistance	35.0 Ω $\pm$ 15% (at 25 °C)
Rated Current	30.0mA

3. INDUCTANCE MEASUREMENT METHOD (by LCR METER:YHP4262A)

1. Measurement Frequency:1[kHz]

2. Circuit Mode:Series

3. Inductance Measurement Range

Measurement Range	100μH	1000μH	10mH	100mH
OSC Level	40mA	10mA	1mA	100μA

No.	Date	Revisions	Checked

[Notes]

Item No.4 and No.5 depends on common spec.
(No.151-ELT3KN04)

DATE ESTABLISHED: 3. Oct. '00

Approved

Checked

Designed

T. Y. Shizume S. Morimoto H. Balu

S P E C I F I C A T I O N S

151-ELT3KN121B (R-0)

Name

FIXED INDUCTOR (VOLTAGE STEP-UP COIL)

1 - 1

Customer's No.

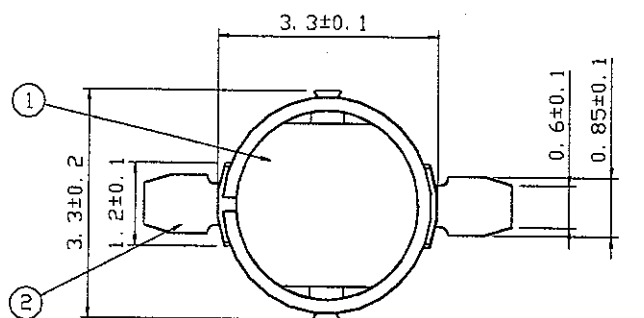
ELT3KN121B

Matsushita's No.

ELT3KN121B

Tentative No.

1. APPEARANCE AND DIMENSIONS (Unit:mm)

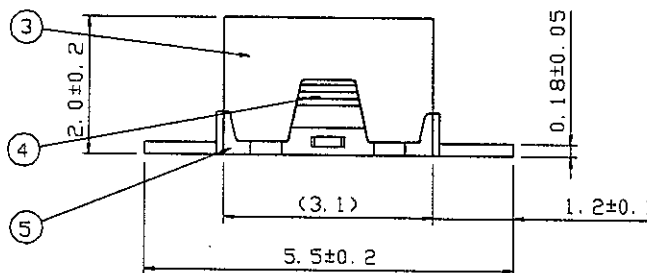


PART NAME	MATERIAL
1 Core	Ferrite
2 Terminal	Cu_Ni_Sn alloy
3 Ring	Cu_Ni_Sn alloy
4 Coil	Polyurethan Enameled Copper Wire
5 Board	Liquid crystal polyester

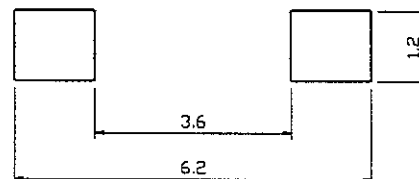
[WINDING SPEC]

Type of wire 3UEWH- ϕ 0.034

Number of turns 288.5T



[MOUNTING DETAILS]



2. ELECTRICAL CHARACTERISTICS

Operating Temperature	- 20 ~ + 85 °C
Inductance	1.0 mH $\pm$ 10 % (at 1 kHz)
DC Resistance	22.5 Ω $\pm$ 15 % (at 25 °C)
Rated Current	40.0 mA

3. INDUCTANCE MEASUREMENT METHOD (by LCR METER:YHP4262A)

1. Measurement Frequency:1[kHz]
2. Circuit Mode:Series
3. Inductance Measurement Range

Measurement Range	100 μH	1000 μH	10 mH	100 mH
OSC Level	40 mA	10 mA	1 mA	100 μA

No.	Date	Revisions	Checked

[Notes]

Item No.4 and No.5 depends on common spec.
(No.151-ELT3KN04)

DATE ESTABLISHED: 3. Oct. '00

Approved

Checked

Designed

T. Yoshigami

S. Morioka

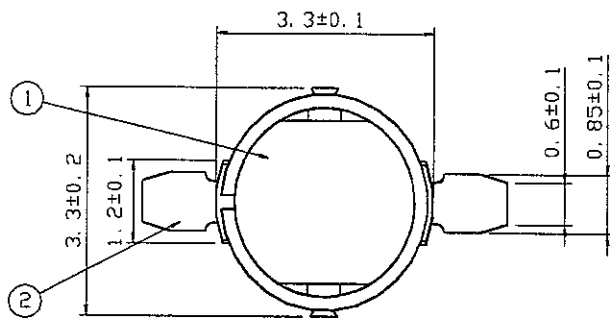
H. Baba

S P E C I F I C A T I O N S

151-ELT3KN123B (R-0)

Name FIXED INDUCTOR (VOLTAGE STEP-UP COIL)		1 - 1
Customer's No. ELT3KN123B	Matsushita's No. ELT3KN123B	Tentative No.

1. APPEARANCE AND DIMENSIONS (Unit:mm)

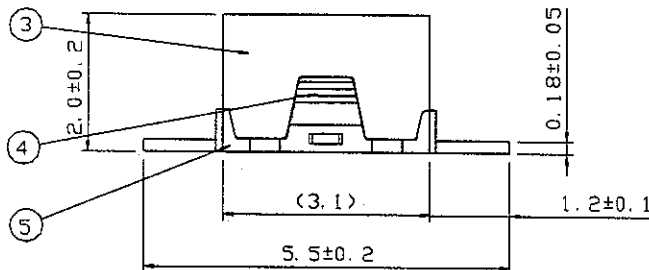


PART NAME	MATERIAL
1 Core	Ferrite
2 Terminal	Cu_Ni_Sn alloy
3 Ring	Cu_Ni_Sn alloy
4 Coil	Polyurethan Enameled Copper Wire
5 Board	Liquid crystal polyester

[WINDING SPEC]

Type of wire 3UEWH-φ0.034

Number of turns 261.5T



[MOUNTING DETAILS]



2. ELECTRICAL CHARACTERISTICS

Operating Temperature	- 20 ~ + 85 °C
Inductance	1.0 mH ± 10 % (at 1 kHz)
DC Resistance	25.0 Ω ± 15 % (at 25 °C)
Rated Current	30.0 mA

3. INDUCTANCE MEASUREMENT METHOD (by LCR METER:YHP4262A)

1. Measurement Frequency:1[kHz]
2. Circuit Mode:Series
3. Inductance Measurement Range

Measurement Range	100 μH	1000 μH	10 mH	100 mH
OSC Level	40 mA	10 mA	1 mA	100 μA

No.	Date	Revisions	Checked

[Notes]

Item No.4 and No.5 depends on common spec.
(No.151-ELT3KN04)

DATE ESTABLISHED: 3. Oct. '00

Approved	Checked	Designed
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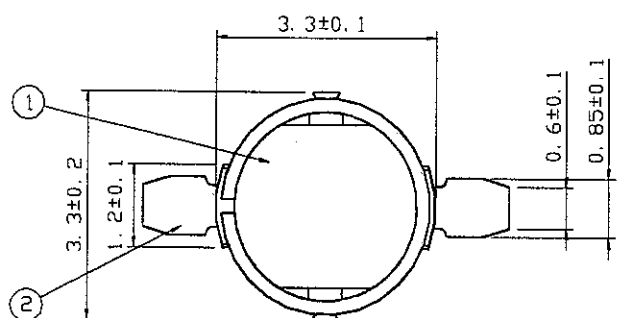
T. Yoshizawa *S. Moriwaka* *H. Bala*

S P E C I F I C A T I O N S

151-ELT3KN131B (R-0)

Name FIXED INDUCTOR (VOLTAGE STEP-UP COIL)		1 - 1
Customer's No. ELT3KN131B	Matsushita's No. ELT3KN131B	Tentative No.

1. APPEARANCE AND DIMENSIONS (Unit:mm)

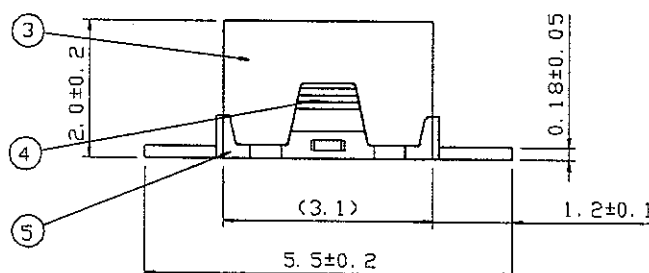


	PART NAME	MATERIAL
1	Core	Ferrite
2	Terminal	Cu_Ni_Sn alloy
3	Ring	Cu_Ni_Sn alloy
4	Coil	Polyurethan Enameled Copper Wire
5	Board	Liquid crystal polyester

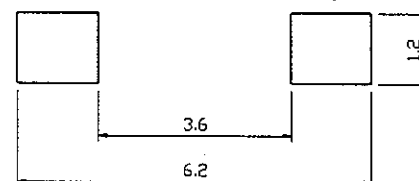
[WINDING SPEC]

Type of wire 3UEWH- ϕ 0.030

Number of turns 365.5T



[MOUNTING DETAILS]



2. ELECTRICAL CHARACTERISTICS

Operating Temperature	- 20 ~ + 85 °C
Inductance	2.0 mH $\pm$ 10 % (at 1 kHz)
DC Resistance	44.0 Ω $\pm$ 15 % (at 25 °C)
Rated Current	20.0 mA

3. INDUCTANCE MEASUREMENT METHOD (by LCR METER:YHP4262A)

1. Measurement Frequency:1[kHz]
2. Circuit Mode:Series
3. Inductance Measurement Range

Measurement Range	100 μH	1000 μH	10 mH	100 mH
OSC Level	40 mA	10 mA	1 mA	100 μA

No.	Date	Revisions	Checked

[Notes]

Item No.4 and No.5 depends on common spec.
(No.151-ELT3KN04)

DATE ESTABLISHED: 3. Oct. '00

Approved	Checked	Designed
<i>T. Yochizawa</i>	<i>S. Morimoto</i>	<i>H. Baba</i>

SPECIFICATIONS

151-ELT3KN118B (R-0)

Name

FIXED INDUCTOR (VOLTAGE STEP-UP COIL)

1-1

Customer's No.

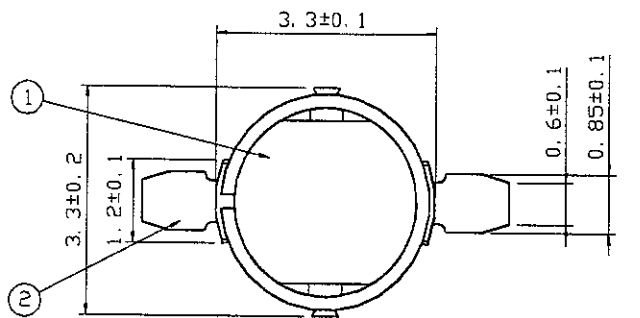
ELT3KN118B

Matsushita's No.

ELT3KN118B

Tentative No.

1. APPEARANCE AND DIMENSIONS (Unit:mm)

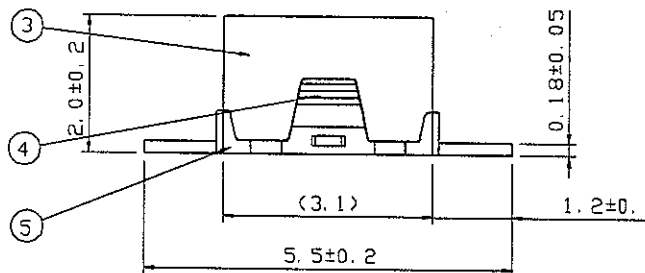


PART NAME	MATERIAL
1 Core	Ferrite
2 Terminal	Cu_Ni_Sn alloy
3 Ring	Cu_Ni_Sn alloy
4 Coil	Polyurethan Enameled Copper Wire
5 Board	Liquid crystal polyester

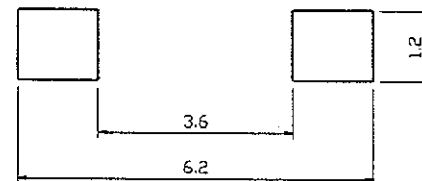
[WINDING SPEC]

Type of wire 3UEWH- ϕ 0.026

Number of turns 410.5T



[MOUNTING DETAILS]



2. ELECTRICAL CHARACTERISTICS

Operating Temperature	-20~+85°C
Inductance	2.5 mH $\pm$ 10% (at 1 kHz)
DC Resistance	64.0 Ω $\pm$ 15% (at 25 °C)
Rated Current	20.0 mA

3. INDUCTANCE MEASUREMENT METHOD (by LCR METER:YHP4262A)

1. Measurement Frequency:1[kHz]

2. Circuit Mode:Series

3. Inductance Measurement Range

Measurement Range	100 μH	1000 μH	10 mH	100 mH
OSC Level	40 mA	10 mA	1 mA	100 μA

No.	Date	Revisions	Checked

[Notes]

Item No.4 and No.5 depends on common spec.
(No.151-ELT3KN04)

DATE ESTABLISHED: 3. Oct. '00

Approved

Checked

Designed

T. Yoshigami

H. Baba

SPECIFICATIONS

151-ELT3KN124B (R-0)

Name

FIXED INDUCTOR (VOLTAGE STEP-UP COIL)

1 - 1

Customer's No.

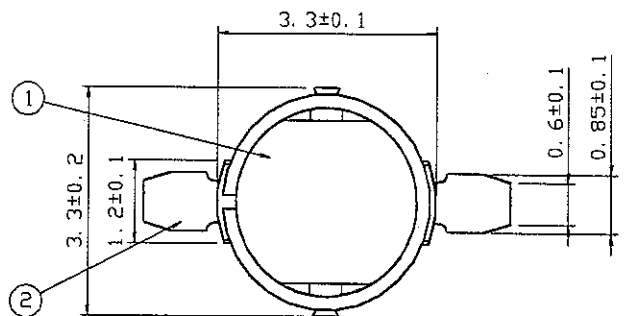
ELT3KN124B

Matsushita's No.

ELT3KN124B

Tentative No.

1. APPEARANCE AND DIMENSIONS (Unit:mm)

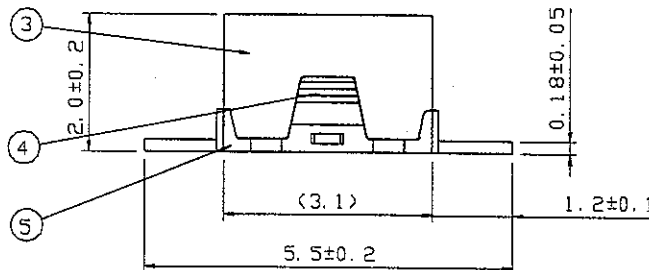


	PART NAME	MATERIAL
1	Core	Ferrite
2	Terminal	Cu_Ni_Sn alloy
3	Ring	Cu_Ni_Sn alloy
4	Coil	Polyurethan Enameled Copper Wire
5	Board	Liquid crystal polyester

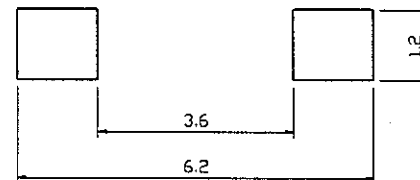
[WINDING SPEC]

Type of wire 3UEWH- ϕ 0.026

Number of turns 522.5T



[MOUNTING DETAILS]



2. ELECTRICAL CHARACTERISTICS

Operating Temperature	-20 ~ +85 °C
Inductance	4.0 mH $\pm$ 10% (at 1 kHz)
DC Resistance	85.0 Ω $\pm$ 15% (at 25 °C)
Rated Current	15.0 mA

3. INDUCTANCE MEASUREMENT METHOD (by LCR METER:YHP4262A)

1. Measurement Frequency:1[kHz]

2. Circuit Mode:Series

3. Inductance Measurement Range

Measurement Range	100 μH	1000 μH	10 mH	100 mH
OSC Level	40 mA	10 mA	1 mA	100 μA

No.	Date	Revisions	Checked

[Notes]

Item No.4 and No.5 depends on common spec.
(No.151-ELT3KN04)

DATE ESTABLISHED: 3. Oct. '00

Approved

Checked

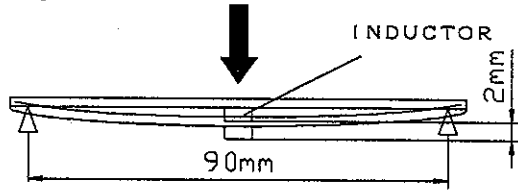
Designed

T. Yoshizawa

S. Morioka

A. Baba

S P E C I F I C A T I O N S		151-ELT3KN04 (R-0)	
Name		4 - 1 - 1	
4 RELIABILITY CHARACTERISTICS ITEM			
ITEM	SPECIFICATION	TEST METHOD/CONDITION	
TEMPERATURE CHARACTERISTICS	Inductance shall not change more than $\pm 5\%$.	Inductors shall be subjected to -30°C , $+25^{\circ}\text{C}$, $+85^{\circ}\text{C}$ for 30min each. Standard: Values at 25°C	
HUMIDITY CHARACTERISTICS	There shall not be case deformation or change in apperance. Inductance shall not change more than $\pm 10\%$.	Inductors shall be subjected to 90~95%RH at $60\pm 2^{\circ}\text{C}$ for 500 ± 8 hours. Measurements shall be made after 2 hours stabilization at room temperature.	
HEAT RESISTANCE		Inductors shall be subjected to $85\pm 2^{\circ}\text{C}$ for 500 ± 8 hours. Measurements shall be made after 2 hours stabilization at room temperature.	
THERMAL SHOCK		Inductors shall be subjected to 100 times to the following temperature cycle. -40°C , $+85^{\circ}\text{C}$ (30min each) Measurements shall be made after 2 hours stabilization at room temoerature.	
LOW TEMPERATURE STORAGE		Inductors shall be subjected to $-40\pm 2^{\circ}\text{C}$ for 500 ± 8 hours. Measurements shall be made after 2 hours stabilization at room temperature.	
DIELECTRIC WITHSTANDING VOLTAGE	There shall not be case deformation or change in apperance.	50V DC between the terminal and upper part of the core, lower part of the core for 5sec.	
SOLDERABILITY	The terminals shall be as least 90% cover with solder.	After fluxing terminals shall be dipped in melted solder bath at $230\pm 5^{\circ}\text{C}$ for 2 ± 0.5 sec.	
RESISTANCE TO SOLDERING HEAT	There shall not be case deformation or change in apperance. Inductance shall not change more than $\pm 10\%$.	Inductors shall be dipped in a melted solder bath at $280\pm 5^{\circ}\text{C}$ for 10 ± 0.5 sec up to 0.5mm from attachment surface.	
VIBRATION, LOW FREQUENCY	There shall not be case deformation or change in apperance. Inductance shall not change more than $\pm 5\%$.	FREQUENCY: 10~55Hz/PERIOD: 60sec/AMPLITUDE: 1.5mm Motion shall be applied for 20min in each of the 3 mutually perpendicular directions.	
No.	Date	Revisions	Checked
[Notes]		DATE ESTABLISHED : 16. Apr, '97	
		Approved	Checked
		Designed	
		T. Yoshigami M. Tawaka H. Baba	

S P E C I F I C A T I O N S		151-ELT3KN04 (R-0)
Name	FIXED INDUCTOR (VOLTAGE STEP-UP COIL)	4 - 1 - 2
RELIABILITY CHARACTERISTICS ITEM		
ITEM	SPECIFICATION	TEST METHOD/CONDITION
SHOCK	There shall not be case deformation or change in appearance and electrical characteristics.	Inductors shall be dropped 3 times from a height of 1m onto a wooden board. Inductors soldered on 50g weight jig shall be dropped 3 times from a height of 75cm onto a concrete. (attached test method) (But a test sample should not be brought into contact with a board directly.)
TERMINAL PULL STRENGTH	There shall not be case deformation or change in appearance.	A 6.5N load shall be applied to both terminals in the horizontal direction for 30sec±0.5sec.
SUBSTRATE BENDING	There shall not be case deformation or change in appearance. Inductance shall not change more than ±40%.	A load shall be applied to inductors soldered on a PCB till it is bent 2mm and then it returns to original position. 
RESISTANCE TO SOLVENTS	There shall not be case deformation or change in appearance.	Inductors shall be subjected to 1-1-1TRICHLOROETHANE for 5min. respectively

SPECIFICATIONS

151-ELT3KN04 (R-0)

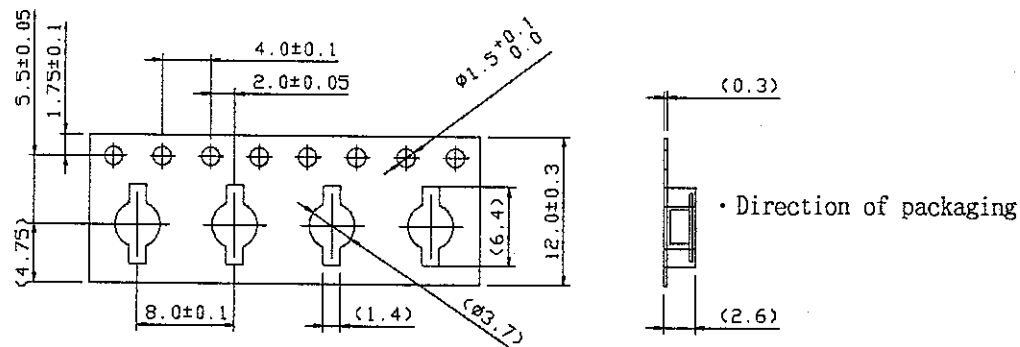
Name

FIXED INDUCTOR (VOLTAGE STEP-UP COIL)

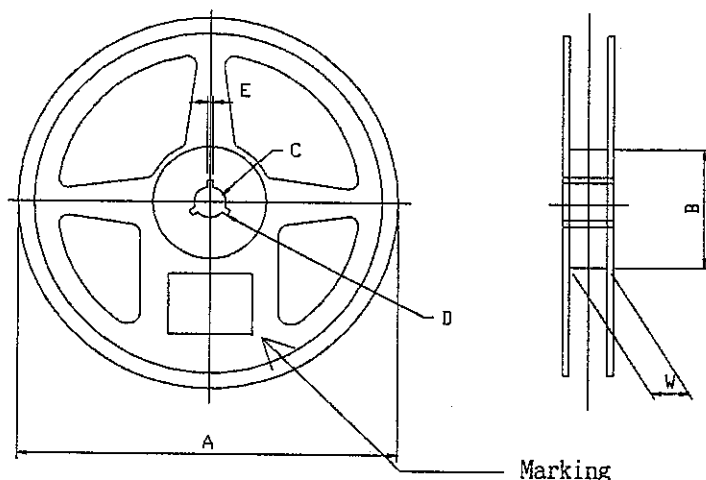
4 - 2

5 PACKAGING

5-1 Carrier tape



5-2 Reel

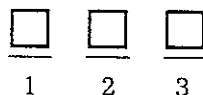


CODE	DIMENSION (mm)
A	$\phi 178 \pm 0.2$
B	$\phi 50 \pm 0.5$
C	$\phi 13.0 \pm 0.5$
D	$\phi 21.0 \pm 0.8$
E	2.0 ± 0.5
W	13.0 ± 0.3

Quantity : 1,000 pcs.

5-3 Marking

Part Name, customer's Part No., our Part No., quantity, manufacturer's name and product code shall be marked on the reel.



[1] YEAR : Last figure of year

[2] MONTH : Refer to details

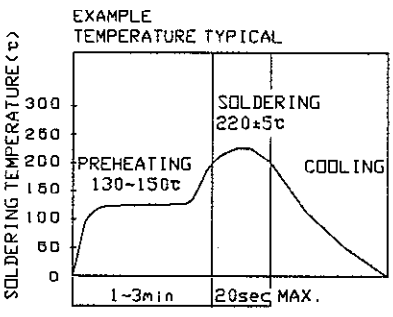
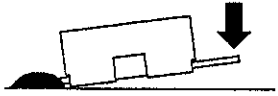
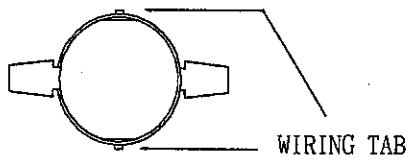
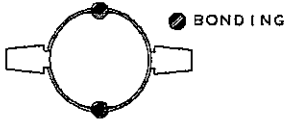
MONTH	1	2	3	4	5	6	7	8	9	10	11	12
CODE	1	2	3	4	5	6	7	8	9	O	N	D

[3] DAY : Refer to details

D A Y	CODE
1~10	1
11~20	2
21~END	3

* Ex. 17 / Oct / 1994

↓
4 0 2

SPECIFICATIONS		151-ELT3KN04 (R-0)
FIXED INDUCTOR (VOLTAGE STEP-UP COIL)		4 - 3
[PRECAUTIONS FOR USE OF FIXED INDUCTOR (VOLTAGE STEP-UP COIL)]		
ITEM	CONTENTS	REMARKS
SOLDERING	• Infrared reflow soldering: This type of reflow soldering should be conducted for up to 20 seconds in electrode temperature range of 200°C or more, and for no more than 5 seconds at peak temperature of 230°C. 	
RESOLDERING WITH A SOLDERING IRON	Resoldering should be done within 3 seconds by soldering iron, the temperature with 350°C or less and should be cooling down after ward. Both side of terminals shall be fixed closely to PCB. And terminals shall not be pressed in heating. DON'T PRESS  The wiring tab shall not be held by sharp-edged tool.  Iron shall not be put to the component itself.	
MOUNTING SIDE	External force must be less than 4.9N : while mounting.	
CLEANING	If you clean the inductor, please use own your ultrasonic cleaning to check specified coditions.	
REINFORCEMENT	To fasten the component on the PCB, We recomend to use epoxy resin as below. 	
STORAGE CONDITIONS	The customer is requested to store the products at the normal temperature (-5°C to 35°C) and the normal humidity (85% RH max.) in the packages we supplied. The pacage shall not be exposed to direct sunlight and harmful gas and care should be taken so as not to cause dew.	

SPECIFICATIONS

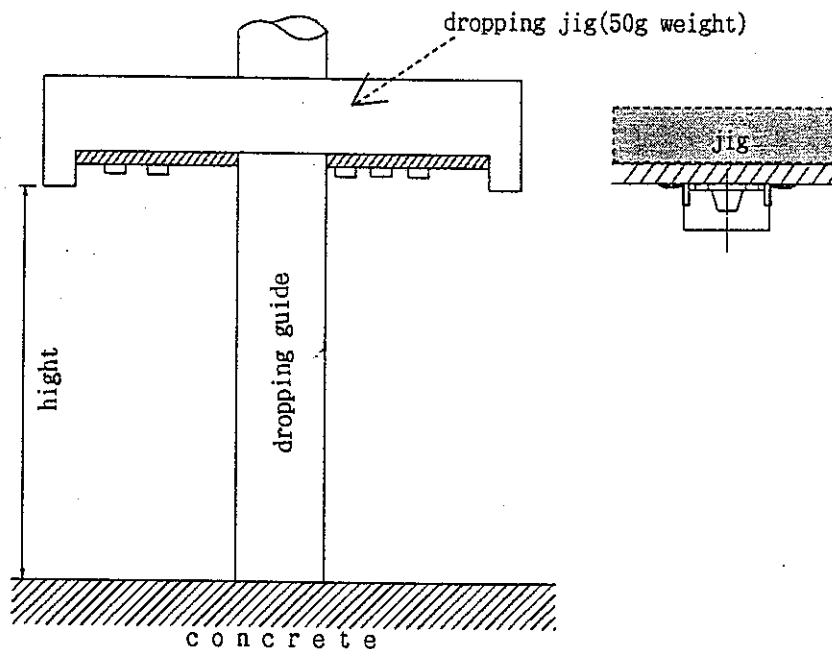
151-ELT3KNO4 (R-0)

Name

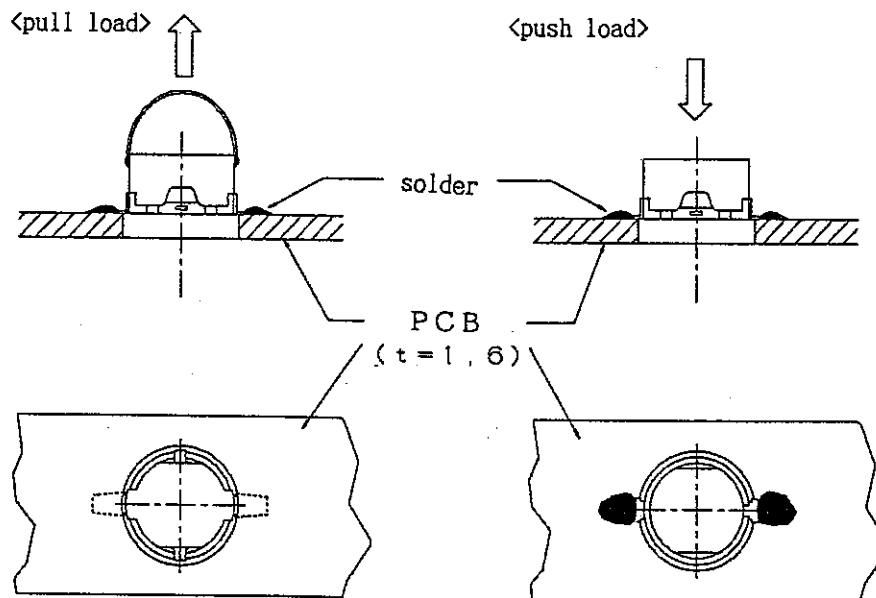
FIXED INDUCTOR (VOLTAGE STEP-UP COIL)

4 - 4

1. TEST METHOD OF RESISTANCE BY DROPPING. (ATTACHED DRAWING)



2. TEST METHOD OF EXFOLIATION STRENGTH BETWEEN CORE AND TERMINAL BOARD. (ATTACHED DROWING)



A load shall be applied to inductors soldered on a PCB as above drawing.