# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## LAN COMPONENTS

## **TLA SERIES(Conformity to RoHS Directive)**

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## Precautions

The TDK products in this data are intended for usage in general electronics applications (computer, personal equipment, office equipment, measuring equipment, industrial robotics, domestic appliances, etc.).

They are neither intend nor warranted for usage in equipment that requires extraordinarily high quality and/or reliability or a malfunction or failure of which may cause loss of human life or bodily injury (atomic energy control instruments, airplane or spaceship instruments, transportation instrument, traffic signal instruments, combustion control instrument, medical instruments, all types of safety devices, etc.).

• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

## ⊗TDK

(2/44)

## LAN Components TLA Series

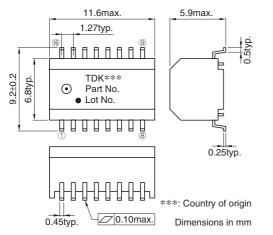
## PULSE TRANSFORMERS

## TLA-3T101LF(-T)/108LF(-T) ISO8802.3(IEEE802.3) 10BASE2/5/-T

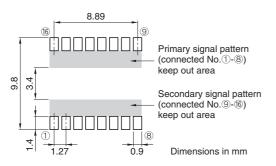
## FEATURES

- Product conforming to RoHS directive.
- Can be mounted with lead-free solder (260°C max.).
- 16-pin SMD package(1.27mm=50mil pin pitch).
- Using the high-quality and wide-band ferrite cores for LAN.
- Packaging specification is taping and bulk(TLA-3T10 LF-T: Tape and reel, TLA-3T10 LF: Bulk).

## SHAPES AND DIMENSIONS



## **RECOMMENDED PC BOARD PATTERN**



## **ELECTRICAL CHARACTERISTICS**

Part No.	Turns ratio 12:65 45:80 78:09	Inductance (μH)typ.[100kHz] ①-② ④-⑤ ⑦-⑧	Leakage inductance (μH)max.[100kHz] ①-②[⑯-⑮ shorted] ④-⑤[⑬-⑫ shorted] ⑦-⑧[⑩-⑨ shorted]	Inter-winding stray capacitance (pF)max.[100kHz] 1②-1615 4⑤-1312 7⑧-109	DC resistance (Ω)max. ①-②,᠖-⑮ ④-⑤,⑬-⑫ ⑦-⑧,⑩-⑨
TLA-3T101LF(-T)	1:1	100	0.25	10	0.35, 0.35
TLA-3T108LF(-T)	1:1	75	0.25	10	0.35, 0.35

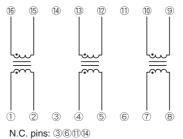
• Ta=25°C

• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

## GENERAL SPECIFICATIONS

Pulse transformer		3	
Port		1	
Tomporatura rangoa	Operating	0 to +70°C	
Temperature ranges	Storage	-40 to +85°C	
Withstanding voltage		Erms:2000V[60s]	





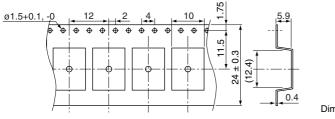
DK

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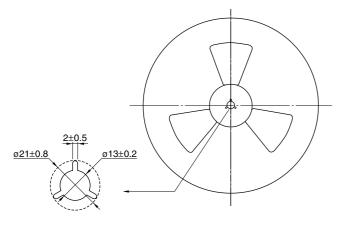
## PACKAGING STYLES

Quantity : 1000pieces/reel

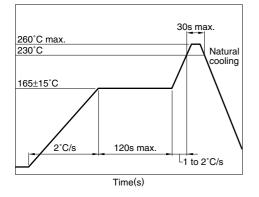
## TAPE DIMENSIONS



## REEL DIMENSIONS

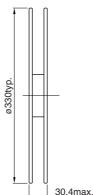


## RECOMMENDED SOLDERING CONDITION REFLOW SOLDERING



- Temperature is measured at the terminal portion of product (Using thermocoupler for measurement).
- This profile is reference data we recommend. Please check in your actual process.
- For reliable soldering, the thickness of solder paste screen should be over the terminal co-planality.
- The cutted end of terminal has no plating(out of subject of solder ability).

Dimensions in mm



Dimensions in mm

## **RECOMMENDED CONDITION FOR LONG TERM STORE**

When it stores for a long term, please avoid place of high temperature and high humidity. Recommend that it uses after the delivery within 1year.

Temperature range: +5 to +30°C Humidity: 60(%)RH max.

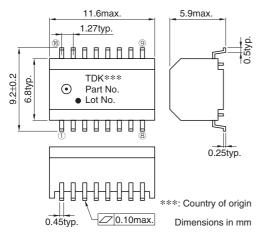
## **⊗TDK**

## TLA-3T106LF(-T)/107LF(-T) ISO8802.3(IEEE802.3) 10BASE-T

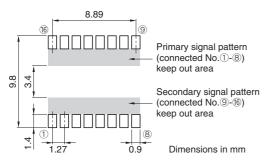
## FEATURES

- Product conforming to RoHS directive.
- Can be mounted with lead-free solder (260°C max.).
- 16-pin SMD package(1.27mm=50mil pin pitch).
- Using the high-quality and wide-band ferrite cores for LAN.
- Packaging specification is taping and bulk(TLA-3T10 LF-T: Tape and reel, TLA-3T10 LF: Bulk).

## SHAPES AND DIMENSIONS



## **RECOMMENDED PC BOARD PATTERN**



#### **ELECTRICAL CHARACTERISTICS**

Part No.	Turns ratio 12:66 34:43 56:121 78:109	Inductance (μH)min.[100kHz] ①-② ③-④ ⑤-⑥ ⑦-⑧	Leakage inductance (μH)max.[100kHz] ①-②[憶-⑮ shorted] ③-④[⑭-⑬ shorted] ⑤-⑥[⑫-⑪ shorted] ⑦-⑧[⑩-⑨ shorted]	Inter-winding stray capacitance (pF)max.[100kHz] 1 2-1615 3 4-1413 5 6-1211 7 8-109	DC resistance (Ω)max. ①-②, ⑧-⑤ ③-④, ⑭-⑮ ⑤-⑥, ⑫-⑪ ⑦-⑧, ⑩-⑨
TLA-3T106LF(-T)	1:1	130	0.3	12	0.4, 0.4
TLA-3T107LF(-T)	1:1.41	130	0.3	12	0.4, 0.5

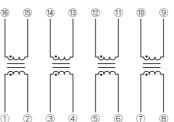
Ta=25°C

• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

## **GENERAL SPECIFICATIONS**

	4	
	4	
Operating	0 to +70°C	
Storage	–40 to +85°C	
	Erms: 2000V[60s]	
		Storage -40 to +85°C



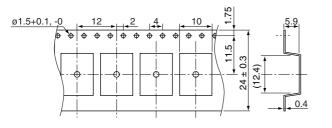


**&TDK** 

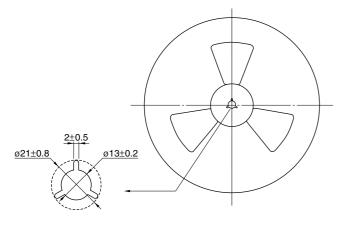
## PACKAGING STYLES

Quantity : 1000pieces/reel

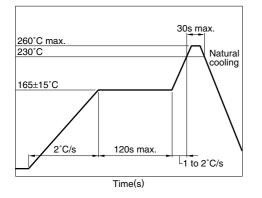
## TAPE DIMENSIONS



## REEL DIMENSIONS

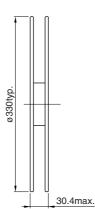


## RECOMMENDED SOLDERING CONDITION REFLOW SOLDERING



- Temperature is measured at the terminal portion of product (Using thermocoupler for measurement).
- This profile is reference data we recommend. Please check in your actual process.
- For reliable soldering, the thickness of solder paste screen should be over the terminal co-planality.
- The cutted end of terminal has no plating(out of subject of solder ability).

Dimensions in mm



Dimensions in mm

## **RECOMMENDED CONDITION FOR LONG TERM STORE**

When it stores for a long term, please avoid place of high temperature and high humidity. Recommend that it uses after the delivery within 1year.

Temperature range: +5 to +30°C

Humidity: 60(%)RH max.

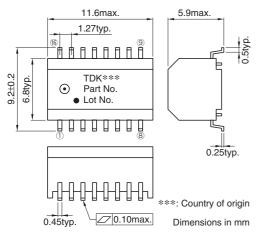
**<b>***<u>⊗</u>TDK* 

## TLA-3T105LF(-T)/109LF(-T)/110LF(-T)/112LF(-T) ISO8802.3(IEEE802.3) 10BASE-T

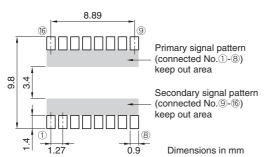
## FEATURES

- Product conforming to RoHS directive.
- Can be mounted with lead-free solder (260°C max.).
- 16-pin SMD package(1.27mm=50mil pin pitch).
- Using the high-quality and wide-band ferrite cores for LAN.
- Packaging specification is taping and bulk(TLA-3T1 LF-T: Tape and reel, TLA-3T1 LF: Bulk).

## SHAPES AND DIMENSIONS



## **RECOMMENDED PC BOARD PATTERN**



#### **ELECTRICAL CHARACTERISTICS**

Part No.	Turns ratio 123:161514 678:11109	Inductance (μH)min.[100kHz] ①-③ ⑥-⑧	Leakage inductance (μH)max.[100kHz] ①-③[⑯-⑭ shorted] ⑥-⑧[⑪-⑨ shorted]	Inter-winding stray capacitance (pF)max.[100kHz] ①3-164 6(8-119	DC resistance (Ω)max. ①-③ ⑥-⑧
TLA-3T105LF(-T)	1CT:1CT	130	0.3	12	0.5
TLA-31105LF(-1)	1CT:1CT	130	0.3	12	0.5
TLA-3T109LF(-T)	2CT:1CT	130	0.95	12	0.5
	1CT:1CT	130	0.35	12	0.5
TLA-3T110LF(-T)	1CT:1CT	130	0.35	12	0.5
	1CT:1.41CT	130	0.35	12	0.5
TLA-3T112LF(-T)	1CT:1CT	130	0.35	12	0.85
	1CT:2.5CT	130	0.35	12	0.85

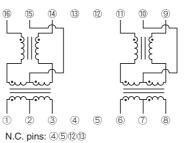
• Ta=25°C

• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

## **GENERAL SPECIFICATIONS**

	2	
	2	
	1	
Operating	0 to +70°C	
Storage	–40 to +85°C	
	Erms: 2000V[60s]	
		Deperating 0 to +70°C   Storage -40 to +85°C



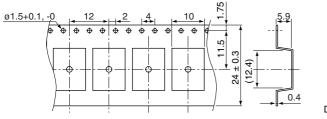


**&TDK** 

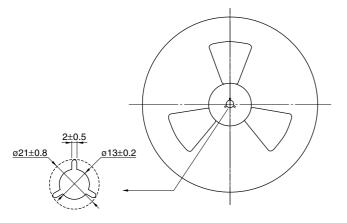
## PACKAGING STYLES

Quantity : 1000pieces/reel

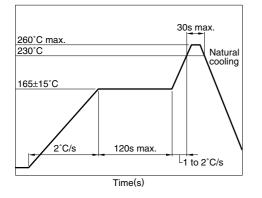
## TAPE DIMENSIONS



## REEL DIMENSIONS

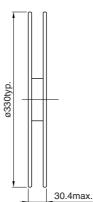


## RECOMMENDED SOLDERING CONDITION REFLOW SOLDERING



- Temperature is measured at the terminal portion of product (Using thermocoupler for measurement).
- This profile is reference data we recommend. Please check in your actual process.
- For reliable soldering, the thickness of solder paste screen should be over the terminal co-planality.
- The cutted end of terminal has no plating(out of subject of solder ability).

#### Dimensions in mm





## **RECOMMENDED CONDITION FOR LONG TERM STORE**

When it stores for a long term, please avoid place of high temperature and high humidity. Recommend that it uses after the delivery within 1year.

Temperature range: +5 to +30°C Humidity: 60(%)RH max.

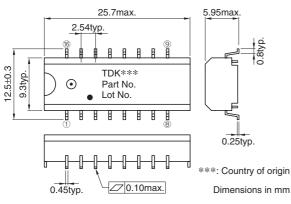
## ⊗TDK

## TLA-6T103LF(-T) ISO8802.3(IEEE802.3) 10/100BASE-TX & ATM

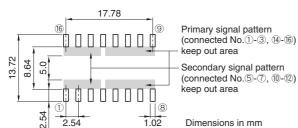
## FEATURES

- Product conforming to RoHS directive.
- Can be mounted with lead-free solder (260°C max.).
- 16-pin SMD package(2.54mm=100mil pin pitch).
- Excellent common-mode noise suppression.
- Inductance is 350µH or greater (f=100kHz, DC bias=8mA).
- Using the high-quality and wide-band ferrite cores for LAN.
- Packaging specification is taping and bulk(TLA-6T103LF-T: Tape and reel, TLA-6T103LF: Bulk).

## SHAPES AND DIMENSIONS



## RECOMMENDED PC BOARD PATTERN



## **ELECTRICAL CHARACTERISTICS**

Part No.	Turns ratio 13/2 : 756	Inductance (μH)min. [DC bias 8mA, 100kHz] ①-⑩ ⑦-⑥	Insertion loss (dB)max. [0.1 to 100MHz] (5)(6)-(1)(0) (7)(6)-(1)(2)	Inter-winding stray capacitance (pF)max.[100kHz] (5)(6-1))(0) (1)(2)-7)(6)
TLA-6T103LF(-T)	1CT:1CT	350	1	25
	1CT:1CT	350	1	25

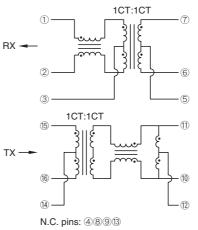
• Ta=25°C

## • Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

## **GENERAL SPECIFICATIONS**

	2	
	2	
	1	
	1	
Operating 0 to +70°C		
Storage	–40 to +85°C	
	Erms:1500V[60s]	
	<u> </u>	2 1 1 <u>Operating</u> 0 to +70°C Storage -40 to +85°C



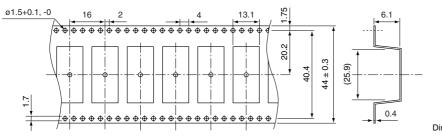


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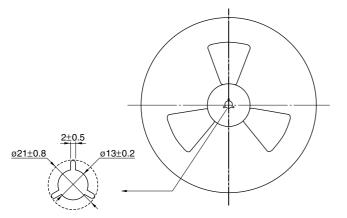
## PACKAGING STYLES

Quantity : 600pieces/reel

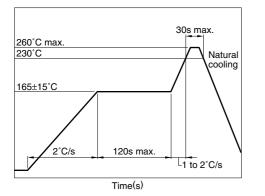
## TAPE DIMENSIONS



### REEL DIMENSIONS



## RECOMMENDED SOLDERING CONDITION REFLOW SOLDERING



- Temperature is measured at the terminal portion of product (Using thermocoupler for measurement).
- This profile is reference data we recommend. Please check in your actual process.
- For reliable soldering, the thickness of solder paste screen should be over the terminal co-planality.
- The cutted end of terminal has no plating(out of subject of solder ability).



Dimensions in mm

## **RECOMMENDED CONDITION FOR LONG TERM STORE**

When it stores for a long term, please avoid place of high temperature and high humidity. Recommend that it uses after the delivery within 1year.

Temperature range: +5 to +30°C

50.4max.

Humidity: 60(%)RH max.

a330typ

• All specifications are subject to change without notice.

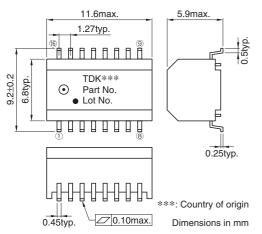
**会TDK** 

## TLA-6T118LF/119LF/120LF/121LF/122LF(-T) ISO8802.3(IEEE802.3) 10/100BASE-TX

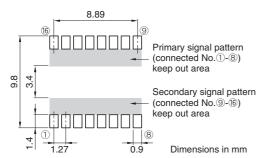
## FEATURES

- Product conforming to RoHS directive.
- Can be mounted with lead-free solder (260°C max.).
- 16-pin SMD package(1.27mm=50mil pin pitch).
- Excellent common mode noise suppression.
- Inductance is 350µH or greater (f=100kHz, DC bias=8mA).
- Using the high-quality and wide-band ferrite cores for LAN.
- Packaging specification is taping and bulk(TLA-6T1 LF-T: Tape and reel, TLA-6T1 LF: Bulk).

## SHAPES AND DIMENSIONS



## **RECOMMENDED PC BOARD PATTERN**



## **ELECTRICAL CHARACTERISTICS**

Part No.	Turns ratio 123:16154 678:11109	Inductance (μH)min. [DC bias 8mA, 100kHz] ᅊ-⑭ ୩)-⑨	Insertion loss (dB)max. [0.1 to 100MHz] ①③-⑯⑭ ①⑨-⑥⑧	Inter-winding stray capacitance (pF)max.[100kHz] 1)3-1614 6)8-119
TLA-6T118LF(-T)	1CT:1CT	350	1	25
1LA-01110LF(-1)	1CT:1CT	350	1	25
	1.41CT:1CT	350	2	25
TLA-6T119LF(-T)	1CT:1CT	350	1	25
	2CT:1CT	350	3.5	25
TLA-6T120LF(-T)	1CT:1CT	350	1	25
	1CT:1.41CT	350	2.5	25
TLA-6T121LF(-T)	1CT:1CT	350	1	25
	1.25CT:1CT	350	2	25
TLA-6T122LF(-T)	1CT:1CT	350	1	25

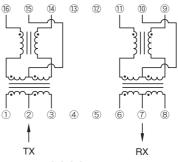
• Ta=25°C

• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

## **GENERAL SPECIFICATIONS**

Pulse transformer		2	
Common-mode choke		2	
Port		1	
Temperature ranges	Operating	0 to +70°C	
	Storage	–40 to +85°C	
Withstanding voltage		Erms:1500V[60s]	

### **CIRCUIT DIAGRAM**



N.C. pins: 451213



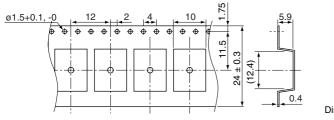
DK

**⇔**T

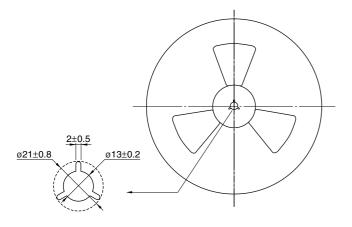
## PACKAGING STYLES

Quantity : 1000pieces/reel

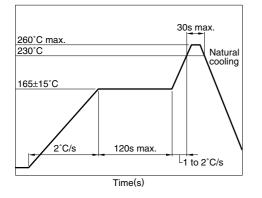
## TAPE DIMENSIONS



## **REEL DIMENSIONS**

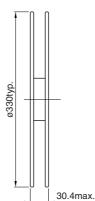


## RECOMMENDED SOLDERING CONDITION REFLOW SOLDERING



- Temperature is measured at the terminal portion of product (Using thermocoupler for measurement).
- This profile is reference data we recommend. Please check in your actual process.
- For reliable soldering, the thickness of solder paste screen should be over the terminal co-planality.
- The cutted end of terminal has no plating(out of subject of solder ability).





Dimensions in mm

## **RECOMMENDED CONDITION FOR LONG TERM STORE**

When it stores for a long term, please avoid place of high temperature and high humidity. Recommend that it uses after the delivery within 1year.

Temperature range: +5 to +30°C Humidity: 60(%)RH max.

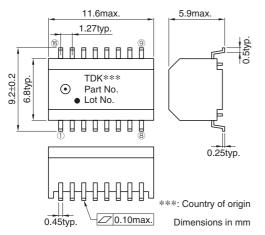
**会TDK** 

## TLA-6T127LF(-T) ISO8802.3(IEEE802.3) 10/100BASE-TX, POWER OVER ETHERNET

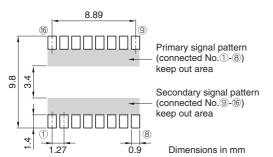
## FEATURES

- Product conforming to RoHS directive.
- Can be mounted with lead-free solder (260°C max.).
- 16-pin SMD package(1.27mm=50mil pin pitch).
- Inductance is 350µH or greater (f=100kHz, DC bias=8mA).
- Allowable current is 350mA max.
- Excellent common mode noise suppression under the power transmission.
- Packaging specification is taping and bulk(TLA-6T127LF-T: Tape and reel, TLA-6T127LF: Bulk).

## SHAPES AND DIMENSIONS



## **RECOMMENDED PC BOARD PATTERN**



## **ELECTRICAL CHARACTERISTICS**

Part No.	Turns ratio 123:654 678:1109	Inductance (μH)min. [DC bias 8mA, 100kHz] ⑯-⑭ ⑪-⑨	Insertion loss (dB)max. [0.1 to 100MHz] ①③-⑥⑭ ①⑨-⑥⑧	Inter-winding stray capacitance (pF)max.[100kHz] ①③-⑯⑭ ⑥⑧-⑪⑨
TLA-6T127LF(-T)	1CT:1CT	350	1	25
	1CT:1CT	350	1	25

• Ta=25°C

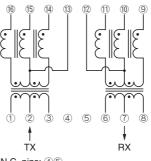
## • Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

· All specifications are subject to change without notice.

#### **GENERAL SPECIFICATIONS**

Pulse transformer		2	
Common-mode choke		2	
Port		1	
Temperature ranges	Operating	0 to +70°C	
	Storage	–40 to +85°C	
Withstanding voltage		Erms:1500V[60s]	

#### **CIRCUIT DIAGRAM**



N.C. pins: (45)

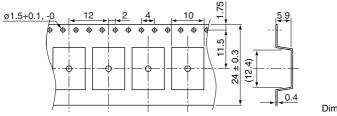


**&TDK** 

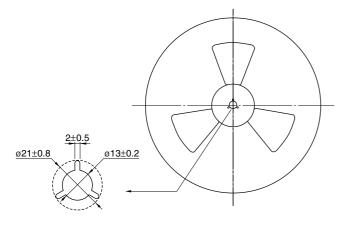
## PACKAGING STYLES

Quantity : 1000pieces/reel

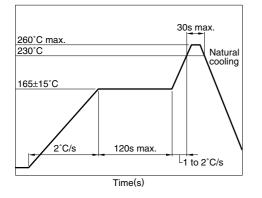
## TAPE DIMENSIONS



## REEL DIMENSIONS

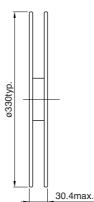


## RECOMMENDED SOLDERING CONDITION REFLOW SOLDERING



- Temperature is measured at the terminal portion of product (Using thermocoupler for measurement).
- This profile is reference data we recommend. Please check in your actual process.
- For reliable soldering, the thickness of solder paste screen should be over the terminal co-planality.
- The cutted end of terminal has no plating(out of subject of solder ability).







## **RECOMMENDED CONDITION FOR LONG TERM STORE**

When it stores for a long term, please avoid place of high temperature and high humidity. Recommend that it uses after the delivery within 1year.

Temperature range: +5 to +30°C Humidity: 60(%)RH max.

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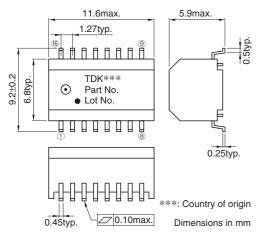
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## TLA-6T133WLF(-T) ISO8802.3(IEEE802.3) 10/100BASE-TX

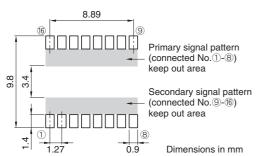
### FEATURES

- Can be used in the wide range of temperature(-40 to +85°C).
- · Product conforming to RoHS directive.
- Can be mounted with lead-free solder (260°C max.).
- 16-pin SMD package(1.27mm=50mil pin pitch).
- · Excellent common mode noise suppression.
- Inductance is 350µH or greater (f=100kHz, DC bias=8mA).
- · Using the high-quality and wide-band ferrite cores for LAN.
- Packaging specification is taping and bulk(TLA-6T133WLF-T: Tape and reel, TLA-6T133WLF: Bulk).

### SHAPES AND DIMENSIONS



## **RECOMMENDED PC BOARD PATTERN**



#### **ELECTRICAL CHARACTERISTICS**

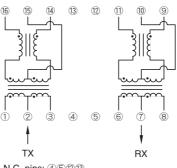
Part No.	Turns ratio ①23:161514 678:10109	Inductance (μH)min. [DC bias 8mA, 100kHz] ᅊ-⑭ ⑪-⑨	Insertion loss (dB)max. [0.1 to 100MHz] ①③-⑥⑭ ①⑨-⑥⑧	Inter-winding stray capacitance (pF)max.[100kHz] 13-1614 68-119
TLA-6T133WLF(-T)	1CT:1CT	350	1	25
	1CT:1CT	350	1	25

Ta=25°C

## **GENERAL SPECIFICATIONS**

Pulse transformer		2	
Common-mode choke		2	
Port		1	
Temperature ranges	Operating	-40 to +85°C	
	Storage	-40 to +85°C	
Withstanding voltage		Erms:1500V[60s]	

#### **CIRCUIT DIAGRAM**



N.C. pins: (45)(2)(3)



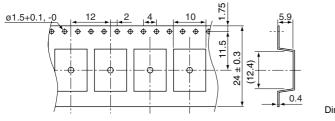
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

**&TDK** 

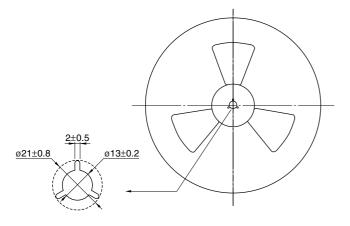
## PACKAGING STYLES

Quantity : 1000pieces/reel

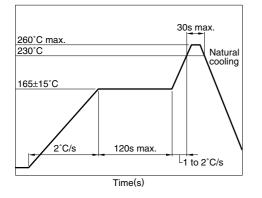
## TAPE DIMENSIONS



## REEL DIMENSIONS

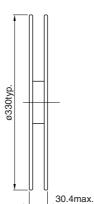


## RECOMMENDED SOLDERING CONDITION REFLOW SOLDERING



- Temperature is measured at the terminal portion of product (Using thermocoupler for measurement).
- This profile is reference data we recommend. Please check in your actual process.
- For reliable soldering, the thickness of solder paste screen should be over the terminal co-planality.
- The cutted end of terminal has no plating(out of subject of solder ability).





Dimensions in mm

## **RECOMMENDED CONDITION FOR LONG TERM STORE**

When it stores for a long term, please avoid place of high temperature and high humidity. Recommend that it uses after the delivery within 1year.

Temperature range: +5 to +30°C Humidity: 60(%)RH max.

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## TLA-6T214ALF(-T) ISO8802.3(IEEE802.3) 10/100/1000BASE-T

## FEATURES

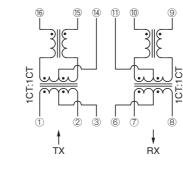
- Product conforming to RoHS directive.
- Can be mounted with lead-free solder (260°C max.).
- 16-pin SMD package(1.27mm=50mil pin pitch).
- Low profile (H)2.1mm max. for note PC application.
- Excellent common mode noise suppression.
- Inductance is 350µH or greater (f=100kHz, DC bias=8mA).
- Using the high-quality and wide-band ferrite cores for LAN.
- Packaging specification is taping and bulk(TLA-6T214ALF-T: Tape and reel, TLA-6T214ALF: Bulk).

2.10max.

Π

	2	
	2	
	1	
Operating	0 to +70°C	
Storage	–40 to +85°C	
	Erms:1500V[60s]	
	<u> </u>	Storage -40 to +85°C

## **CIRCUIT DIAGRAM**





## 0.25typ

SHAPES AND DIMENSIONS

0.45typ

9.47±0.2 8.37typ. 12.70max.

TDK\*\*\*

Part No.

Lot No.

1) 9 П П П

6

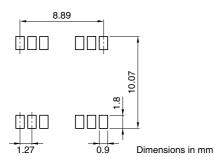
1.27typ

∠ 0.10max.

\*\*\*: Country of origin Dimensions in mm

95typ

#### **RECOMMENDED PC BOARD PATTERN**



#### ELECTRICAL CHARACTERISTICS

		Inductance	Insertion loss	Inter-winding
	Turns ratio	(μH)min.	(dB)max.	stray capacitance
Part No.	132:161415	[DC bias 8mA, 100kHz]	[0.1 to 125MHz]	(pF)max.[100kHz]
	768:10119	16-15	12-1615	12-1615
		10-9	109-78	109-78
TLA-6T214ALF(-T)	1CT:1CT	350	1	25
	1CT:1CT	350	1	25
T 0500				

• Ta=25°C

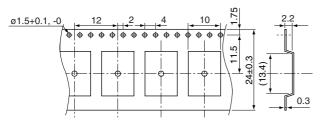
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.
- All specifications are subject to change without notice.

'DK

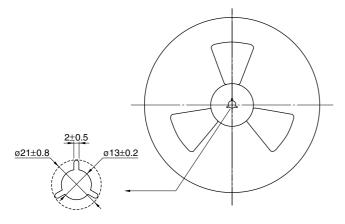
## PACKAGING STYLES

Quantity: 1500pieces/reel

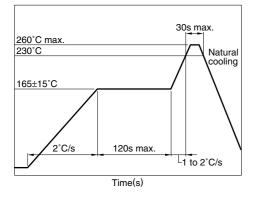
## TAPE DIMENSIONS



## REEL DIMENSIONS

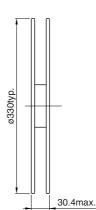


## RECOMMENDED SOLDERING CONDITION REFLOW SOLDERING



- Temperature is measured at the terminal portion of product (Using thermocoupler for measurement).
- This profile is reference data we recommend. Please check in your actual process.
- For reliable soldering, the thickness of solder paste screen should be over the terminal co-planality.
- The cutted end of terminal has no plating(out of subject of solder ability).

Dimensions in mm



Dimensions in mm

## **RECOMMENDED STORE CONDITION**

The product is packaged by Anti-humid Al bag, in order to keep a good solder ability condition and resistance to soldering heat for products.

- Before aluminum bag opening Temperature range: +5 to +40°C Humidity: 90(%)RH max. Storage period: 1year
- After aluminum bag opening Temperature range: +5 to +30°C Humidity: 60(%)RH max. Storage period: 1week

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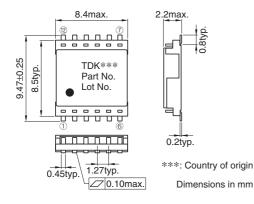
**⇔**Τ

## TLA-6T213LF(-T) ISO8802.3(IEEE802.3) 10/100/1000BASE-T

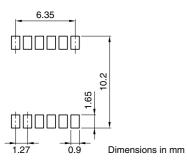
### FEATURES

- Product conforming to RoHS directive.
- Can be mounted with lead-free solder (260°C max.).
- 12-pin SMD package(1.27mm=50mil pin pitch).
- Because it is low profile design of 2.2mm max., space saving is possible and is suitable for notebook PC.
- Excellent common mode noise suppression.
- Inductance is 350µH or greater (f=100kHz, DC bias=8mA).
- Using the high-quality and wide-band ferrite cores for LAN.
- Packaging specification is taping and bulk(TLA-6T213LF-T: Tape and reel, TLA-6T213LF: Bulk).

## SHAPES AND DIMENSIONS



## **RECOMMENDED PC BOARD PATTERN**



## ELECTRICAL CHARACTERISTICS

		Inductance	Insertion loss	Inter-winding
Part No.	Turns ratio (1)③②:121011	(μH)min. [DC bias 8mA, 100kHz]	(dB)max. [0.1 to 100MHz]	stray capacitance (pF)max.[100kHz]
Fait NO.	546:897		12-121	12-121
		8-7	87-56	87-56
TLA-6T213LF(-T)	1CT:1CT	350	1	25
• To 05%C				

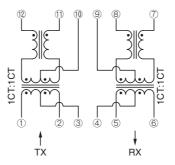
• Ta=25°C

Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

## **GENERAL SPECIFICATIONS**

Pulse transformer		2	
Common-mode choke		2	
Port		1	
Temperature ranges	Operating	0 to +70°C	
	Storage	–40 to +85°C	
Withstanding voltage		Erms:1500V[60s]	





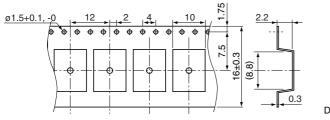
DK

**⇔**T

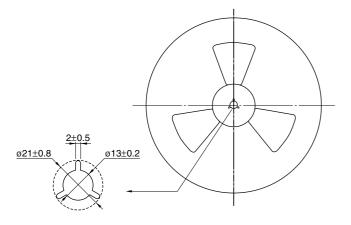
## PACKAGING STYLES

Quantity: 1500pieces/reel

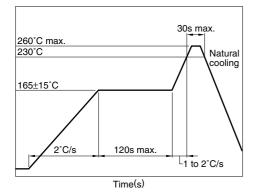
## TAPE DIMENSIONS



## REEL DIMENSIONS

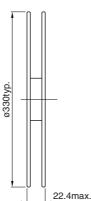


## RECOMMENDED SOLDERING CONDITION REFLOW SOLDERING



- Temperature is measured at the terminal portion of product (Using thermocoupler for measurement).
- This profile is reference data we recommend. Please check in your actual process.
- For reliable soldering, the thickness of solder paste screen should be over the terminal co-planality.
- The cutted end of terminal has no plating(out of subject of solder ability).

Dimensions in mm





## **RECOMMENDED STORE CONDITION**

The product is packaged by Anti-humid Al bag, in order to keep a good solder ability condition and resistance to soldering heat for products.

- Before aluminum bag opening Temperature range: +5 to +40°C Humidity: 90(%)RH max. Storage period: 1year
- After aluminum bag opening Temperature range: +5 to +30°C Humidity: 60(%)RH max. Storage period: 1week

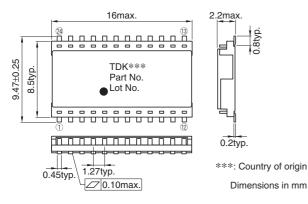
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## TLA-7T201LF(-T) ISO8802.3(IEEE802.3) 10/100/1000BASE-T

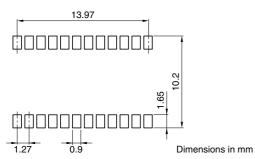
### FEATURES

- Product conforming to RoHS directive.
- Can be mounted with lead-free solder (260°C max.).
- 24-pin SMD package(1.27mm=50mil pin pitch).
- Because it is low profile design of 2.2mm max., space saving is possible and is suitable for notebook PC.
- Excellent common mode noise suppression.
- Inductance is 350µH or greater (f=100kHz, DC bias=8mA).
- Using the high-quality and wide-band ferrite cores for LAN.
- Packaging specification is taping and bulk(TLA-7T201LF-T: Tape and reel, TLA-7T201LF: Bulk).

### SHAPES AND DIMENSIONS



## **RECOMMENDED PC BOARD PATTERN**



## **ELECTRICAL CHARACTERISTICS**

-		Inductance	Insertion loss	Inter-winding
	Turns ratio	(μH)min.	(dB)max.	stray capacitance
	132:24223	[DC bias 8mA, 100kHz]	[0.1 to 100MHz]	(pF)max.[100kHz]
Part No.	546:202119	24-23	12-2423	12-2423
	798:181617	20-19	56-2019	56-2019
	111012:141513	18-17	78-1817	78-1817
		14-13	1112-1413	1112-1413
TLA-7T201LF(-T)	1CT:1CT	350	1	25

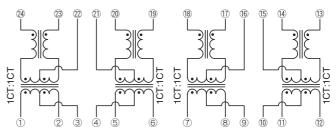
• Ta=25°C

## • Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

## **GENERAL SPECIFICATIONS**

Pulse transformer		4	
Common-mode choke		4	
Port		1[1000BASE-T]	
Temperature ranges	Operating	0 to +70°C	
	Storage	–40 to +85°C	
Withstanding voltage		Erms:1500V[60s]	





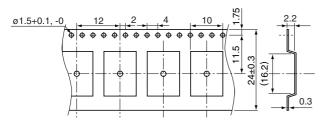
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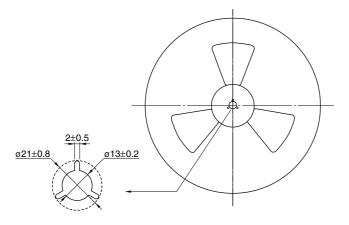
## PACKAGING STYLES

Quantity: 1500pieces/reel

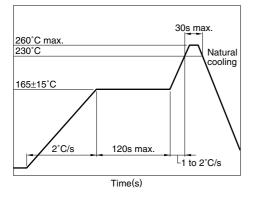
## TAPE DIMENSIONS



## REEL DIMENSIONS

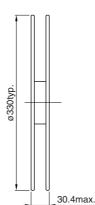


## RECOMMENDED SOLDERING CONDITION REFLOW SOLDERING



- Temperature is measured at the terminal portion of product (Using thermocoupler for measurement).
- This profile is reference data we recommend. Please check in your actual process.
- For reliable soldering, the thickness of solder paste screen should be over the terminal co-planality.
- The cutted end of terminal has no plating(out of subject of solder ability).

Dimensions in mm





## **RECOMMENDED STORE CONDITION**

The product is packaged by Anti-humid Al bag, in order to keep a good solder ability condition and resistance to soldering heat for products.

- Before aluminum bag opening Temperature range: +5 to +40°C Humidity: 90(%)RH max. Storage period: 1year
- After aluminum bag opening Temperature range: +5 to +30°C Humidity: 60(%)RH max. Storage period: 1week

## TLA-6T404(-T) ISO8802.3(IEEE802.3) 10/100BASE-TX

### FEATURES

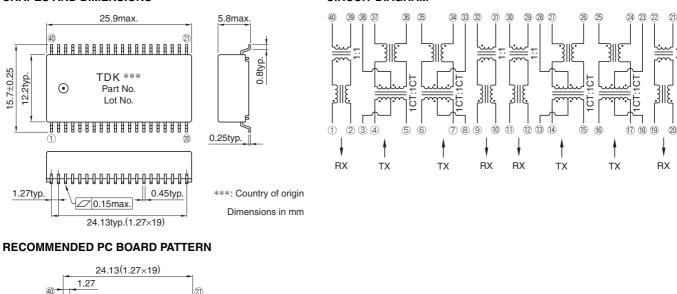
- Product conforming to RoHS directive.
- Can be mounted with lead-free solder (250°C max.).
- 40-pin SMD package(1.27mm=50mil pin pitch) for Quad port.
- Excellent common-mode noise suppression.
- Inductance is 350µH or greater (f=100kHz, DC bias=8mA).
- Using the high-quality and wide-band ferrite cores for LAN.
- Packaging specification is taping and bulk(TLA-6T404-T: Tape and reel, TLA-6T404: Bulk).

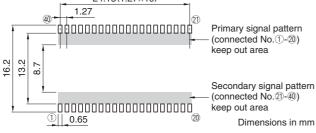
#### SHAPES AND DIMENSIONS

## GENERAL SPECIFICATIONS

Pulse transformer		8	
Common-mode choke		8	
Port		4	
Temperature ranges	Operating	0 to +70°C	
	Storage	–40 to +85°C	
Withstanding voltage		Erms:1500V[60s]	

## **CIRCUIT DIAGRAM**





#### **ELECTRICAL CHARACTERISTICS**

Part No.	Turns ratio ④③⑤:⑦寥⑨ ①②:④⑨	Inductance (μH)min. [DC bias 8mA, 100kHz] ③ - ③ ④ - ③	Insertion loss (dB)max. [0.1 to 100MHz] ④⑤-⑦汤 ⑭③-①②	Inter-winding stray capacitance (pF)max.[100kHz] ④⑤-⑦箋 ①②-⑩箋
TLA-6T404(-T)	1CT:1CT	350	1	25
	1:1	350	1	25

• Ta=25°C

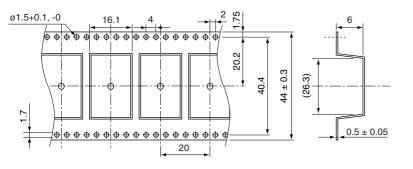
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

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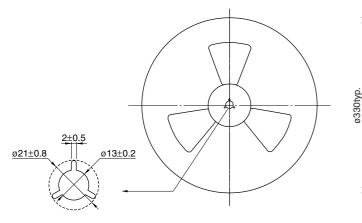
## PACKAGING STYLES

Quantity : 500pieces/reel

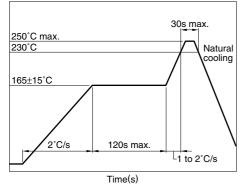
#### TAPE DIMENSIONS



## REEL DIMENSIONS



## RECOMMENDED SOLDERING CONDITION REFLOW SOLDERING



- Temperature is measured at the terminal portion of product (Using thermocoupler for measurement).
- This profile is reference data we recommend. Please check in your actual process.
- For reliable soldering, the thickness of solder paste screen should be over the terminal co-planality.
- The cutted end of terminal has no plating(out of subject of solder ability).



RECOMMENDED STORE CONDITION

50.4max.

The product is packaged by Anti-humid Al bag, in order to keep a good solder ability condition and resistance to soldering heat for products.

Dimensions in mm

- Before aluminum bag opening Temperature range: +5 to +40°C Humidity: 90(%)RH max. Storage period: 1year
- After aluminum bag opening Temperature range: +5 to +30°C Humidity: 60(%)RH max. Storage period: 1week

## ⊗TDK

## TLA-6T406(-T) ISO8802.3(IEEE802.3) 10/100BASE-TX

### FEATURES

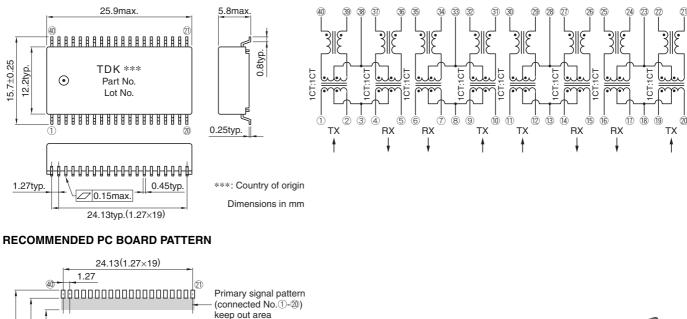
- Product conforming to RoHS directive.
- Can be mounted with lead-free solder (250°C max.).
- 40-pin SMD package(1.27mm=50mil pin pitch) for Quad port.
- Excellent common-mode noise suppression.
- Inductance is 350µH or greater (f=100kHz, DC bias=8mA).
- Using the high-quality and wide-band ferrite cores for LAN.
- Packaging specification is taping and bulk(TLA-6T406-T: Tape and reel, TLA-6T406: Bulk).

## SHAPES AND DIMENSIONS

## **GENERAL SPECIFICATIONS**

	8
	8
	4
Operating	0 to +70°C
Storage	–40 to +85°C
	Erms:1500V[60s]







#### **ELECTRICAL CHARACTERISTICS**

①|| 0.65

Part No.	Turns ratio ①③②:锄翎勁 ④③⑤:⑦ሜ爾	Inductance (μH)min. [DC bias 8mA, 100kHz] ④-③ ③-③	Insertion loss (dB)max. [0.1 to 100MHz] ①②-御箋 ④⑤-⑦箋	Inter-winding stray capacitance (pF)max.[100kHz] ①②-锄箋 ④⑤-⑦爹
TLA-6T406(-T)	1CT:1CT	350	1	40
	1CT:1CT	350	1	40

Secondary signal pattern (connected No.2)-40)

Dimensions in mm

keep out area

• Ta=25°C

16.2 13.2 8.7

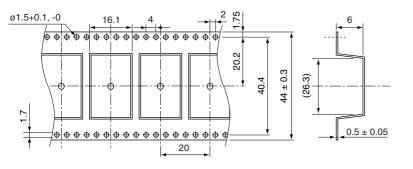
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

'DK

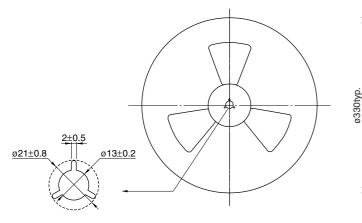
## PACKAGING STYLES

Quantity : 500pieces/reel

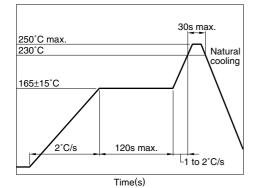
#### TAPE DIMENSIONS



## REEL DIMENSIONS



## RECOMMENDED SOLDERING CONDITION REFLOW SOLDERING



- Temperature is measured at the terminal portion of product (Using thermocoupler for measurement).
- This profile is reference data we recommend. Please check in your actual process.
- For reliable soldering, the thickness of solder paste screen should be over the terminal co-planality.
- The cutted end of terminal has no plating(out of subject of solder ability).



## **RECOMMENDED STORE CONDITION**

50.4max.

The product is packaged by Anti-humid Al bag, in order to keep a good solder ability condition and resistance to soldering heat for products.

Dimensions in mm

- Before aluminum bag opening Temperature range: +5 to +40°C Humidity: 90(%)RH max. Storage period: 1year
- After aluminum bag opening Temperature range: +5 to +30°C Humidity: 60(%)RH max. Storage period: 1week