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Pulse transformers

TLA /ALT series

Issue date: April 2012

- All specifications are subject to change without notice.
- 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.

PULSE TRANSFORMERS

TLA/ALT SERIES

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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.
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PULSE TRANSFORMERS TLA/ALT Series

Pulse Transformers/Pin Terminal Type

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

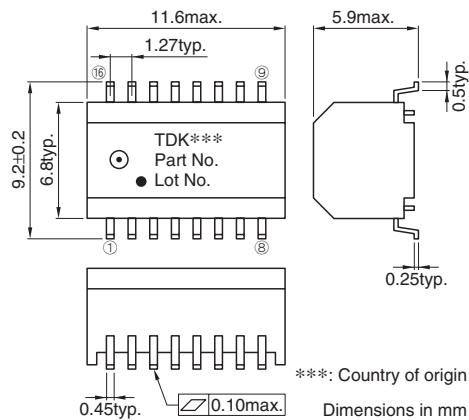
FEATURES

- 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-3T101LF-T: Tape and reel, TLA-3T101LF: Bulk).

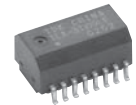
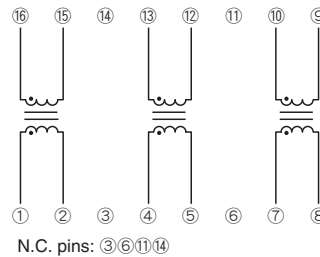
GENERAL SPECIFICATIONS

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

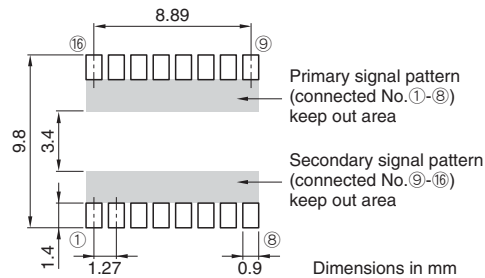
SHAPES AND DIMENSIONS



CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERN



ELECTRICAL CHARACTERISTICS

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

- $T_a=25^\circ\text{C}$

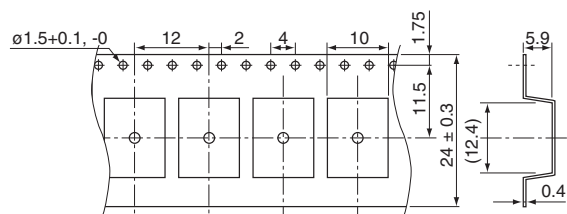
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

PACKAGING STYLES

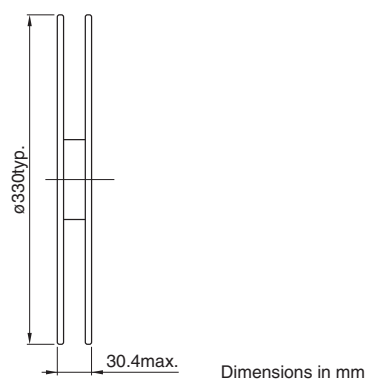
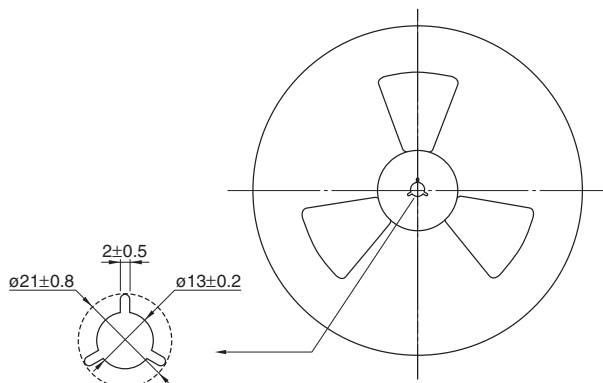
Quantity : 1000pieces/reel

TAPE DIMENSIONS



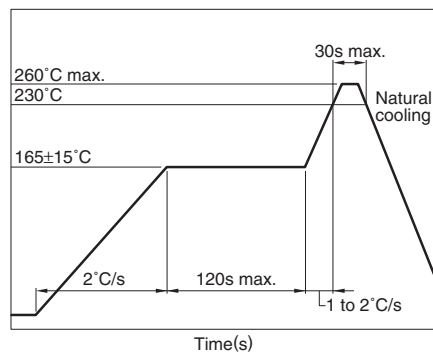
Dimensions in mm

REEL DIMENSIONS



Dimensions in mm

RECOMMENDED SOLDERING CONDITION REFLOW SOLDERING



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.

- 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).

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

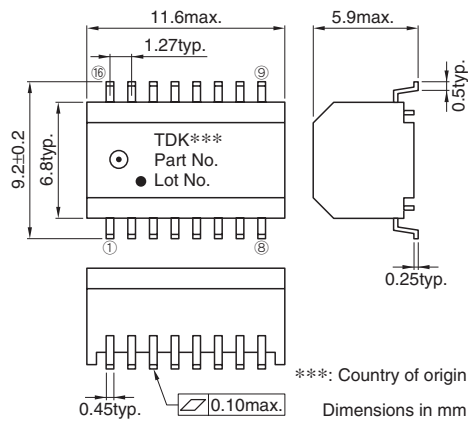
FEATURES

- 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).

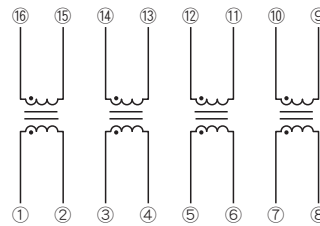
GENERAL SPECIFICATIONS

Pulse transformer		4
Port		4
Temperature ranges	Operating	0 to +70°C
	Storage	-40 to +85°C
Withstanding voltage		Erms: 2000V[60s]

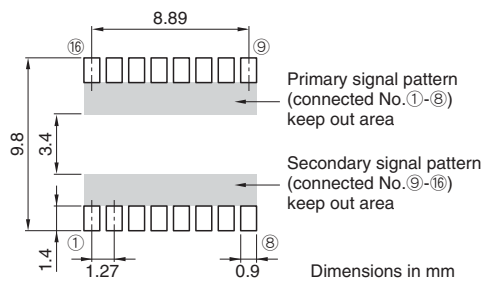
SHAPES AND DIMENSIONS



CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERN



ELECTRICAL CHARACTERISTICS

Part No.	Turns ratio	Inductance (μ H)min.[100kHz]	Leakage inductance (μ H)max.[100kHz]	Inter-winding stray capacitance (pF)max.[100kHz]	DC resistance (Ω)max.
	①②:⑯⑮ ③④:⑭⑬ ⑤⑥:⑫⑪ ⑦⑧:⑩⑨	①-② ③-④ ⑤-⑥ ⑦-⑧	①-②[⑯-⑮ shorted] ③-④[⑭-⑬ shorted] ⑤-⑥[⑫-⑪ shorted] ⑦-⑧[⑩-⑨ shorted]	①②-⑯⑮ ③④-⑭⑬ ⑤⑥-⑫⑪ ⑦⑧-⑩⑨	①-②, ⑯-⑮ ③-④, ⑭-⑬ 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

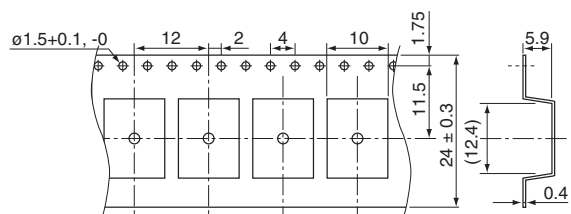
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

PACKAGING STYLES

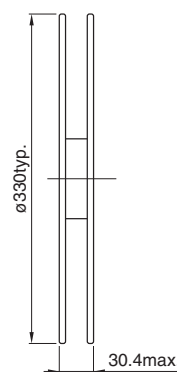
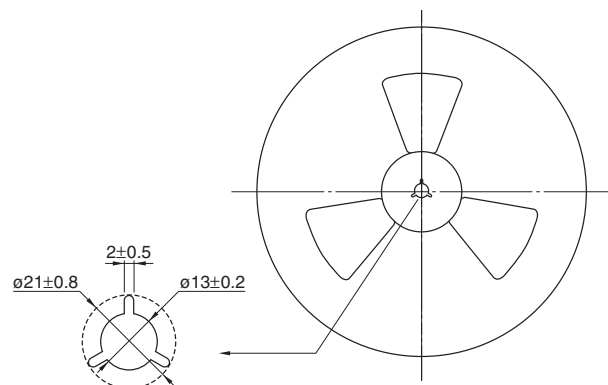
Quantity : 1000pieces/reel

TAPE DIMENSIONS



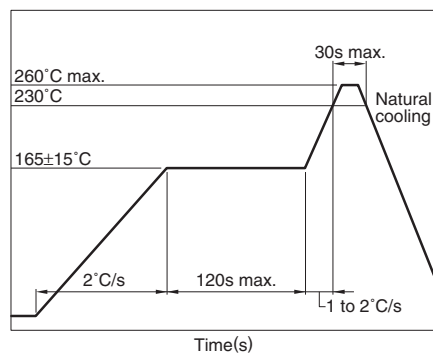
Dimensions in mm

REEL DIMENSIONS



Dimensions in mm

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.

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

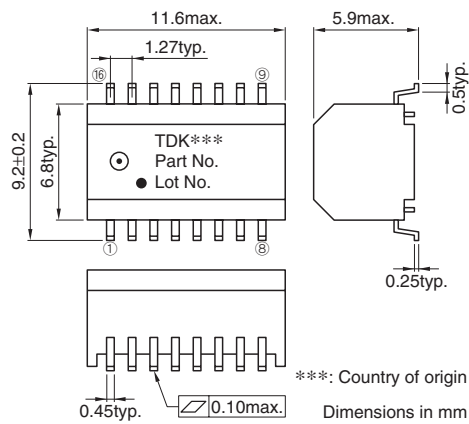
FEATURES

- 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).

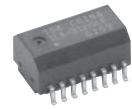
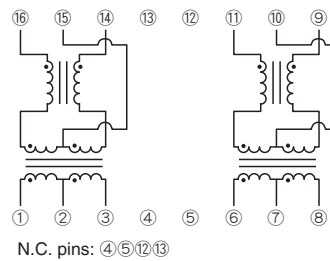
GENERAL SPECIFICATIONS

Pulse transformer	2	
Common-mode choke	2	
Port	1	
Temperature ranges	Operating	0 to +70°C
	Storage	-40 to +85°C
Withstanding voltage	Erms: 2000V[60s]	

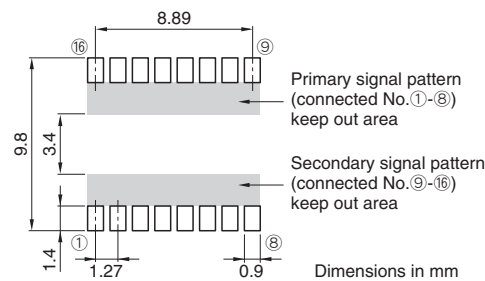
SHAPES AND DIMENSIONS



CIRCUIT DIAGRAM



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[⑪-⑩ shorted]	Inter-winding stray capacitance (pF)max.[100kHz] ①③-⑯⑭ ⑥⑧-⑪⑩	DC resistance (Ω)max. ①-③ ⑥-⑧
TLA-3T105LF(-T)	1CT:1CT	130	0.3	12	0.5
TLA-3T109LF(-T)	1CT:1CT	130	0.3	12	0.5
TLA-3T110LF(-T)	2CT:1CT	130	0.95	12	0.5
TLA-3T112LF(-T)	1CT:1CT	130	0.35	12	0.5
TLA-3T110LF(-T)	1CT:1.41CT	130	0.35	12	0.5
TLA-3T112LF(-T)	1CT:1CT	130	0.35	12	0.85
TLA-3T112LF(-T)	1CT:2.5CT	130	0.35	12	0.85

- Ta=25°C

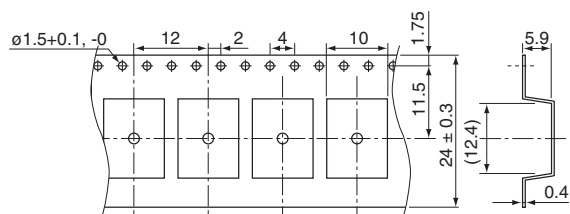
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

PACKAGING STYLES

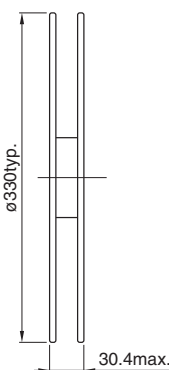
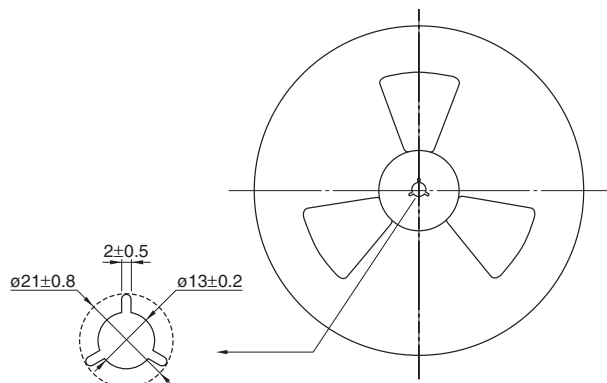
Quantity : 1000pieces/reel

TAPE DIMENSIONS



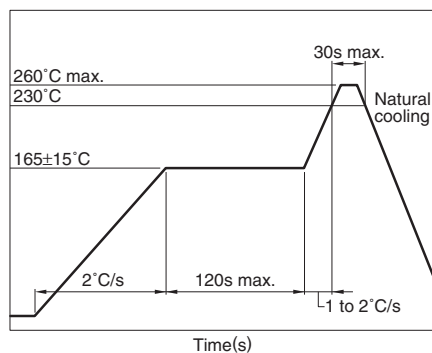
Dimensions in mm

REEL DIMENSIONS



Dimensions in mm

RECOMMENDED SOLDERING CONDITION REFLOW SOLDERING



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.

- 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).

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

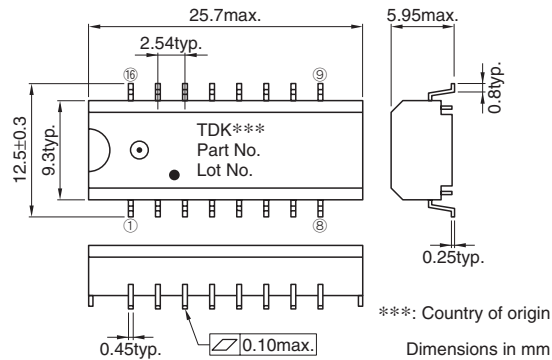
FEATURES

- 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 350 μ H 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).

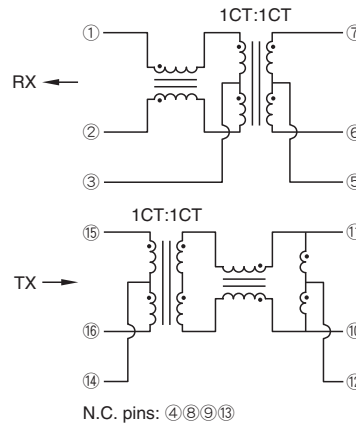
GENERAL SPECIFICATIONS

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

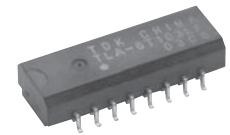
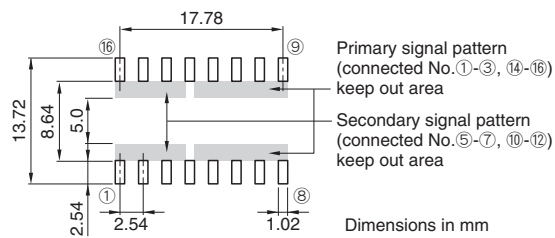
SHAPES AND DIMENSIONS



CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERN



ELECTRICAL CHARACTERISTICS

Part No.	Turns ratio ⑮⑭⑯ : ⑪⑫⑩ ①③② : ⑦⑤⑥	Inductance (μ H)min. [DC bias 8mA, 100kHz]	Insertion loss (dB)max. [0.1 to 100MHz]	Inter-winding stray capacitance (pF)max.[100kHz]
TLA-6T103LF(-T)	1CT:1CT	350	1	25
	1CT:1CT	350	1	25

- Ta=25°C

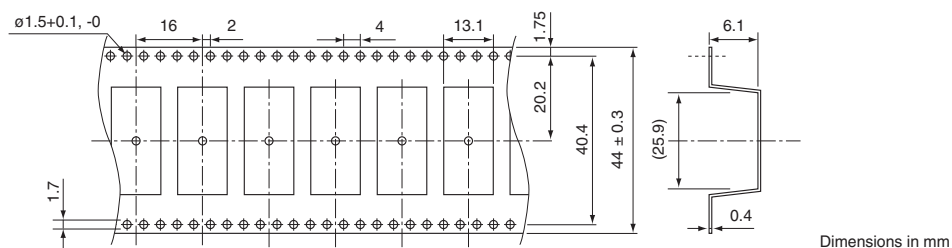
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

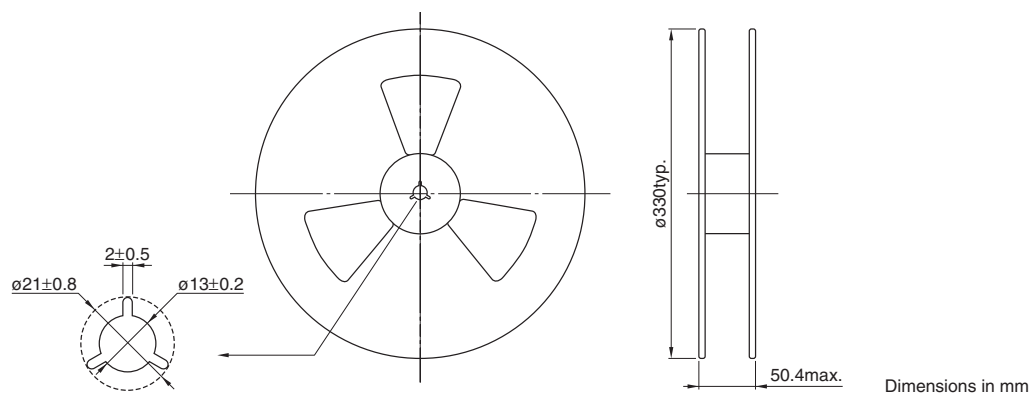
PACKAGING STYLES

Quantity : 600pieces/reel

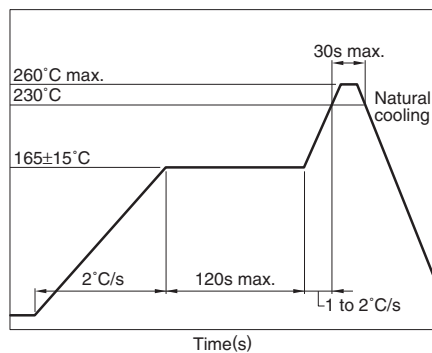
TAPE DIMENSIONS



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).

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.

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

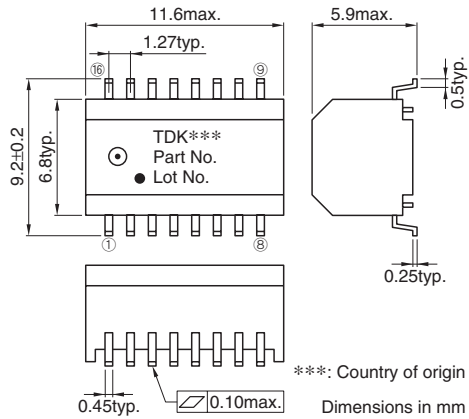
FEATURES

- 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).

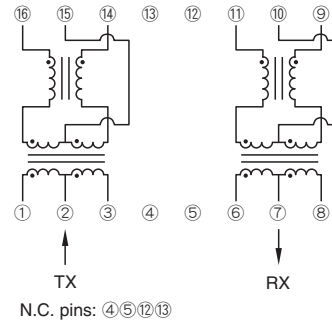
GENERAL SPECIFICATIONS

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]	

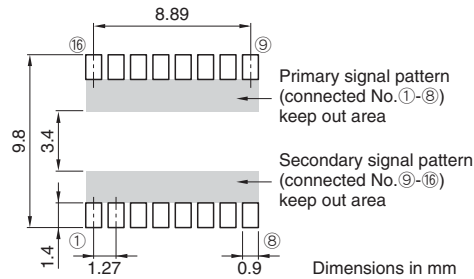
SHAPES AND DIMENSIONS



CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERN



ELECTRICAL CHARACTERISTICS

Part No.	Turns ratio ①②③ : ⑯⑮⑭ ⑥⑦⑧ : ⑪⑩⑨	Inductance (μH)min. [DC bias 8mA, 100kHz] ⑯-⑭ ⑪-⑨	Insertion loss (dB)max. [0.1 to 100MHz] ①③-⑯⑭ ⑪⑨-⑥⑧	Inter-winding stray capacitance (pF)max.[100kHz] ①③-⑯⑭ ⑥⑧-⑪⑨
TLA-6T118LF(-T)	1CT:1CT	350	1	25
TLA-6T119LF(-T)	1.41CT:1CT	350	2	25
TLA-6T120LF(-T)	1CT:1CT	350	1	25
TLA-6T121LF(-T)	2CT:1CT	350	3.5	25
TLA-6T122LF(-T)	1CT:1CT	350	1	25
TLA-6T121LF(-T)	1CT:1.41CT	350	2.5	25
TLA-6T122LF(-T)	1CT:1CT	350	1	25
TLA-6T122LF(-T)	1.25CT:1CT	350	2	25
TLA-6T122LF(-T)	1CT:1CT	350	1	25

- Ta=25°C

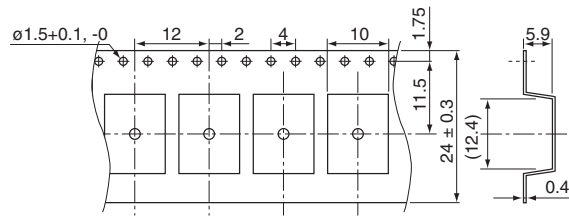
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

PACKAGING STYLES

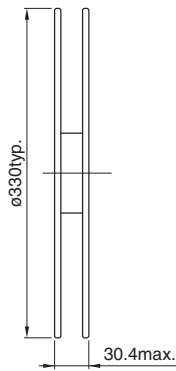
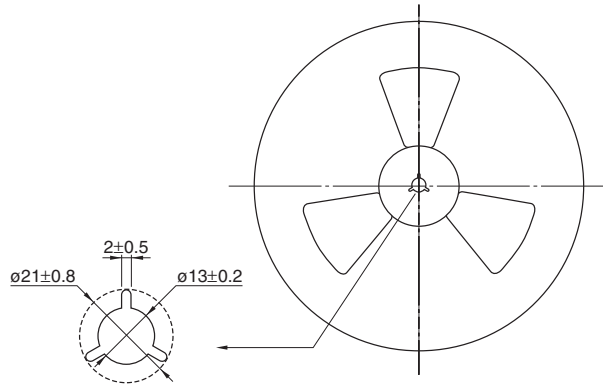
Quantity : 1000pieces/reel

TAPE DIMENSIONS



Dimensions in mm

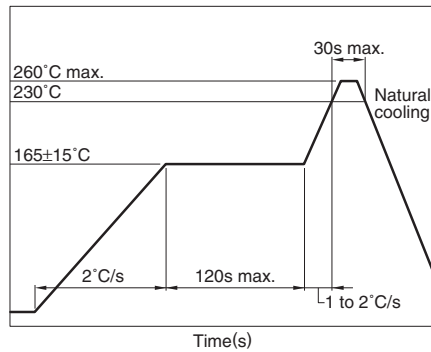
REEL DIMENSIONS



Dimensions in mm

RECOMMENDED SOLDERING CONDITION

REFLOW SOLDERING



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.

- 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).

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

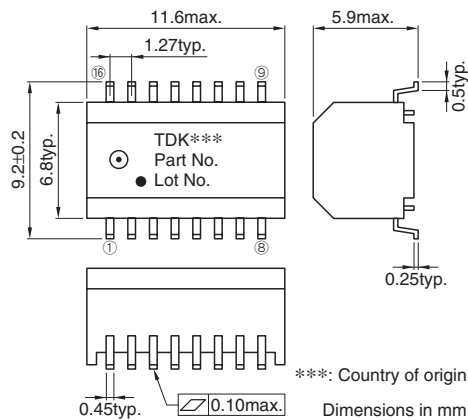
FEATURES

- 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 350 μ H 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).

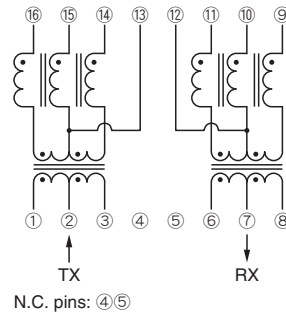
GENERAL SPECIFICATIONS

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]	

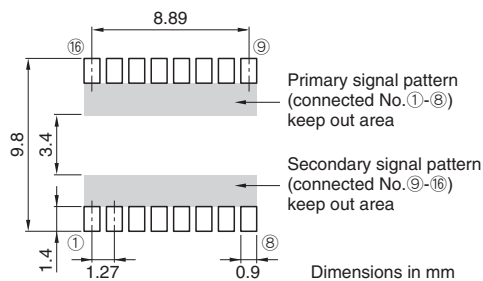
SHAPES AND DIMENSIONS



CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERN



ELECTRICAL CHARACTERISTICS

Part No.	Turns ratio ①②③ : ⑯⑮⑭ ⑥⑦⑧ : ⑪⑩⑨	Inductance (μ H)min. [DC bias 8mA, 100kHz] ⑯-⑭ ⑪-⑨	Insertion loss (dB)max. [0.1 to 100MHz] ①③-⑯⑭ ⑪⑨-⑥⑧	Inter-winding stray capacitance (pF)max.[100kHz] ①③-⑯⑭ ⑥⑧-⑪⑨
TLA-6T127LF(-T)	1CT:1CT 1CT:1CT	350 350	1 1	25 25

- Ta=25°C

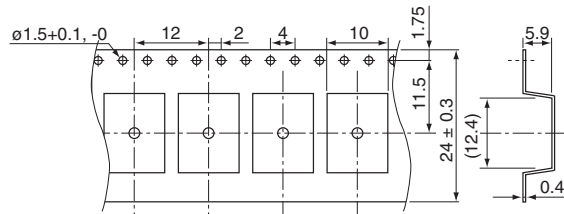
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

PACKAGING STYLES

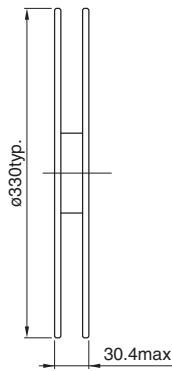
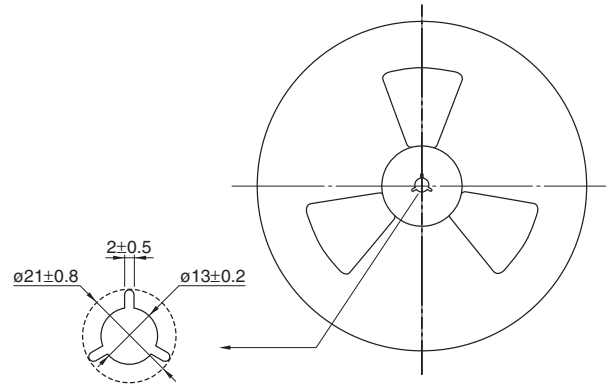
Quantity : 1000pieces/reel

TAPE DIMENSIONS



Dimensions in mm

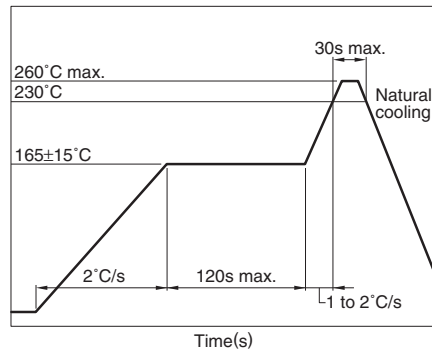
REEL DIMENSIONS



Dimensions in mm

RECOMMENDED SOLDERING CONDITION

REFLOW SOLDERING



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.

- 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).

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

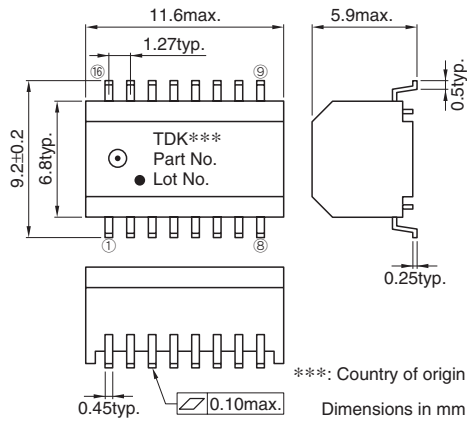
FEATURES

- 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).

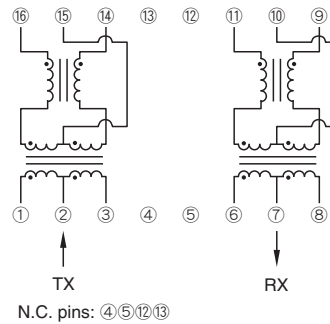
GENERAL SPECIFICATIONS

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]	

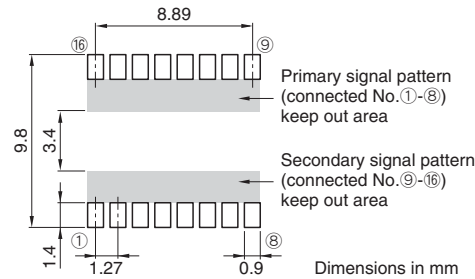
SHAPES AND DIMENSIONS



CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERN



ELECTRICAL CHARACTERISTICS

Part No.	Turns ratio ①②③ : ⑩⑪⑫⑬ ⑥⑦⑧ : ⑭⑮⑯	Inductance (μH)min. [DC bias 8mA, 100kHz] ⑩-⑬ ⑭-⑯	Insertion loss (dB)max. [0.1 to 100MHz] ①③-⑯⑭ ⑭⑨-⑥⑧	Inter-winding stray capacitance (pF)max.[100kHz] ①③-⑯⑭ ⑥⑧-⑭⑨
TLA-6T133WLF(-T)	1CT:1CT 1CT:1CT	350 350	1 1	25 25

- Ta=25°C

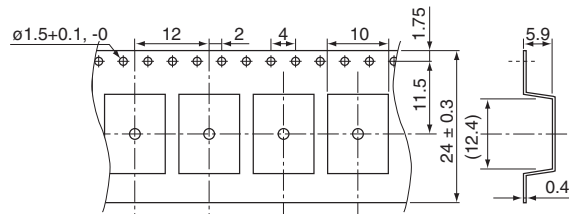
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

PACKAGING STYLES

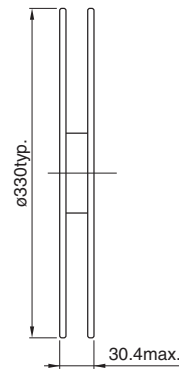
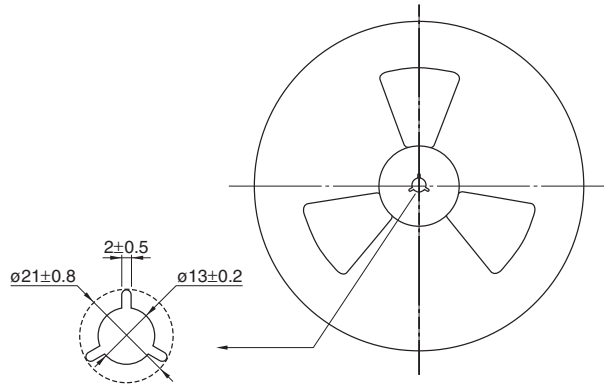
Quantity : 1000pieces/reel

TAPE DIMENSIONS



Dimensions in mm

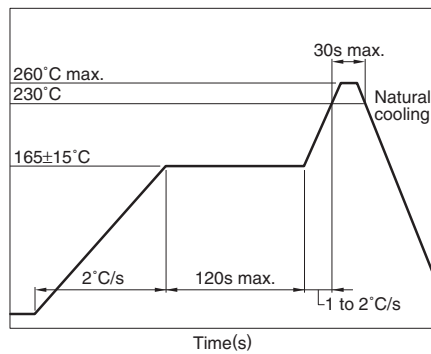
REEL DIMENSIONS



Dimensions in mm

RECOMMENDED SOLDERING CONDITION

REFLOW SOLDERING



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.

- 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).

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

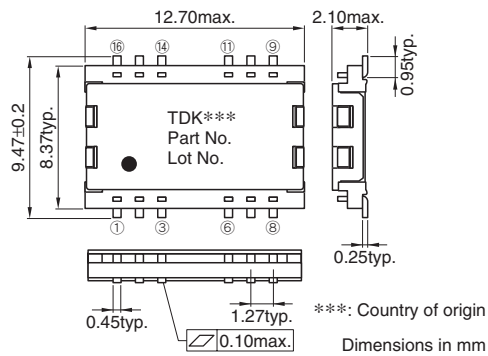
FEATURES

- 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).

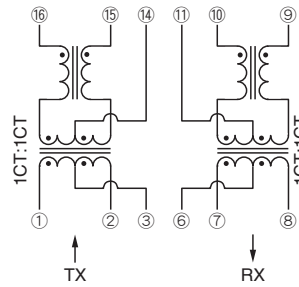
GENERAL SPECIFICATIONS

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]	

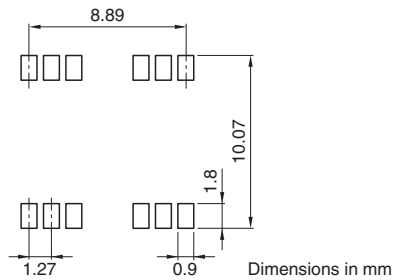
SHAPES AND DIMENSIONS



CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERN



ELECTRICAL CHARACTERISTICS

Part No.	Turns ratio ①③②:⑫⑭⑮ ⑦⑥⑧:⑩⑪⑨	Inductance (μH)min. [DC bias 8mA, 100kHz] ⑫-⑮ ⑩-⑨	Insertion loss (dB)max. [0.1 to 125MHz] ①②-⑫⑮ ⑩⑨-⑦⑧	Inter-winding stray capacitance (pF)max.[100kHz] ①②-⑫⑮ ⑩⑨-⑦⑧
TLA-6T214ALF(-T)	1CT:1CT	350	1	25
	1CT:1CT	350	1	25

- Ta=25°C

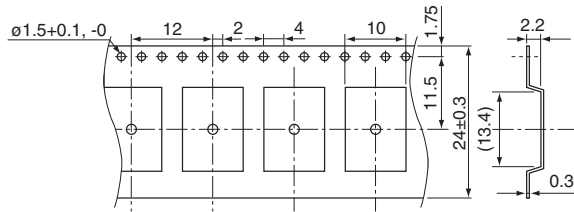
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

PACKAGING STYLES

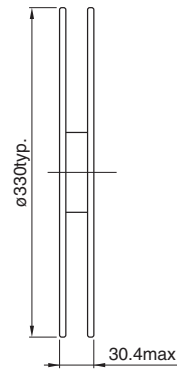
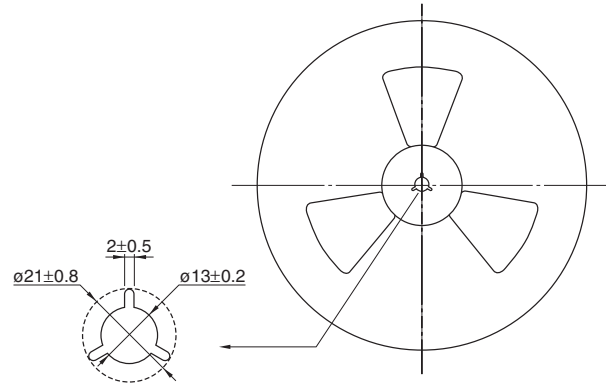
Quantity : 1500pieces/reel

TAPE DIMENSIONS



Dimensions in mm

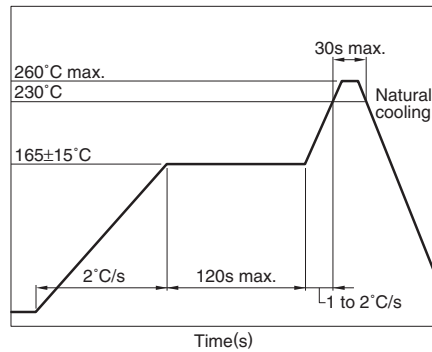
REEL DIMENSIONS



Dimensions in mm

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

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

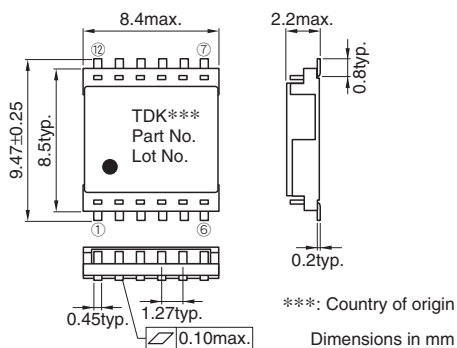
FEATURES

- 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 350 μ H 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).

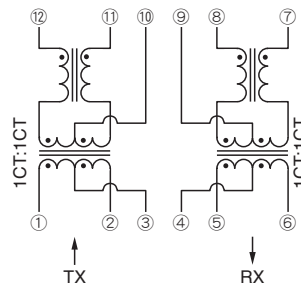
GENERAL SPECIFICATIONS

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]	

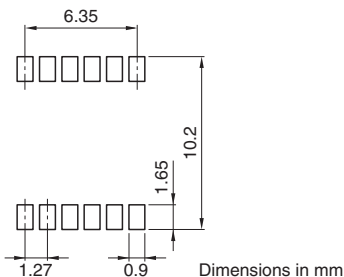
SHAPES AND DIMENSIONS



CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERN



ELECTRICAL CHARACTERISTICS

Part No.	Turns ratio ①③②:⑫⑩⑪ ⑤④⑥:⑧⑨⑦	Inductance (μ H)min. [DC bias 8mA, 100kHz] ⑫-⑪ ⑧-⑦	Insertion loss (dB)max. [0.1 to 100MHz] ①②-⑫⑪ ⑧⑦-⑤⑥	Inter-winding stray capacitance (pF)max.[100kHz] ①②-⑫⑪ ⑧⑦-⑤⑥
TLA-6T213LF(-T)	1CT:1CT	350	1	25

- Ta=25°C

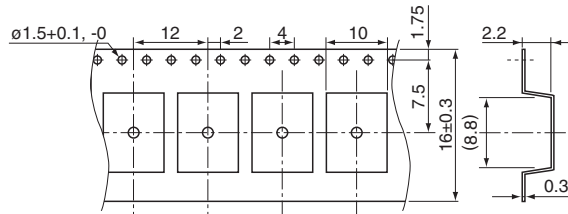
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

PACKAGING STYLES

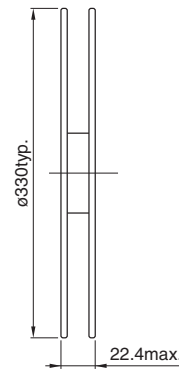
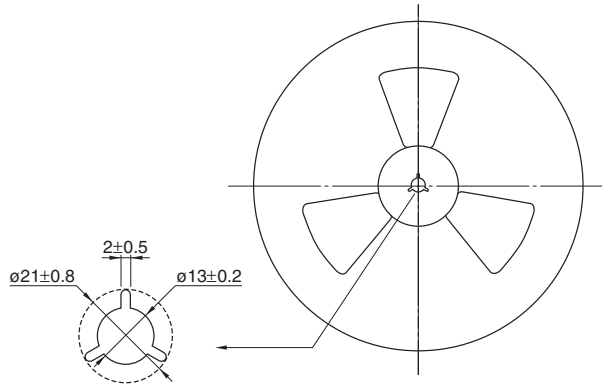
Quantity : 1500pieces/reel

TAPE DIMENSIONS



Dimensions in mm

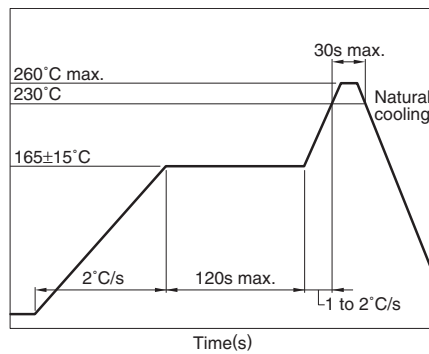
REEL DIMENSIONS



Dimensions in mm

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

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

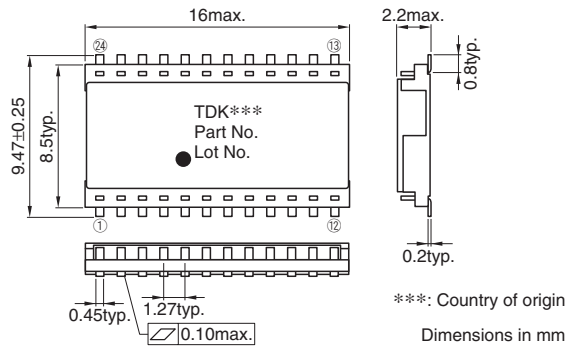
FEATURES

- 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 350 μ H 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).

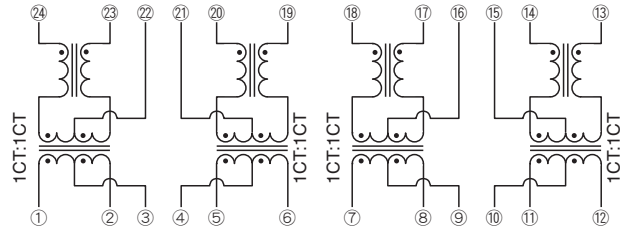
GENERAL SPECIFICATIONS

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]	

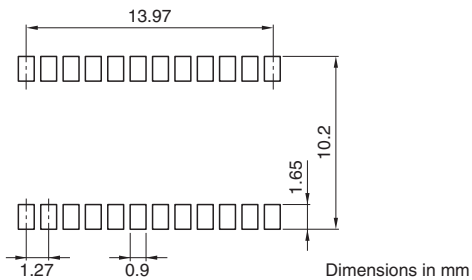
SHAPES AND DIMENSIONS



CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERN



ELECTRICAL CHARACTERISTICS

Part No.	Turns ratio	Inductance (μ H)min. [DC bias 8mA, 100kHz]	Insertion loss (dB)max. [0.1 to 100MHz]	Inter-winding stray capacitance (pF)max.[100kHz]
	①③②:②④②③ ⑤④⑥:②①①⑨ ⑦⑨⑧:①⑧①⑦ ⑪⑩⑫:①④①⑤⑬	②④-②③ ②①-①⑨ ①⑧-①⑦ ①④-①③	①②-②④③ ⑤⑥-②①⑨ ⑦⑧-①⑧①⑦ ⑪⑫-①④⑬	①②-②④③ ⑤⑥-②①⑨ ⑦⑧-①⑧①⑦ ⑪⑫-①④⑬
TLA-7T201LF(-T)	1CT:1CT	350	1	25

- Ta=25°C

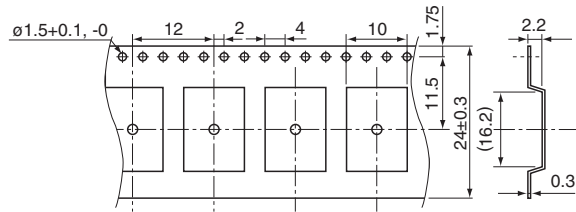
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

PACKAGING STYLES

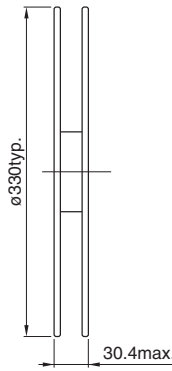
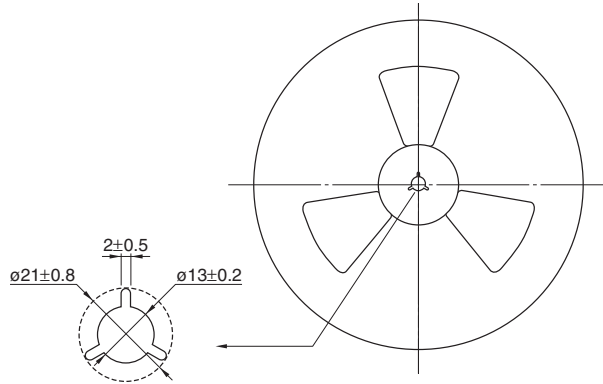
Quantity : 1500pieces/reel

TAPE DIMENSIONS



Dimensions in mm

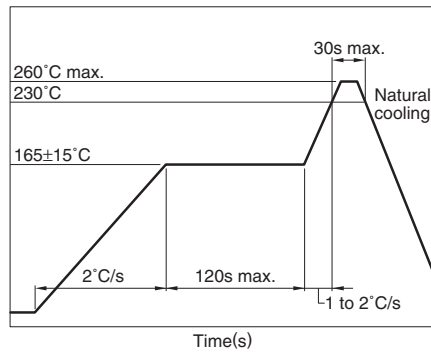
REEL DIMENSIONS



Dimensions in mm

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

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

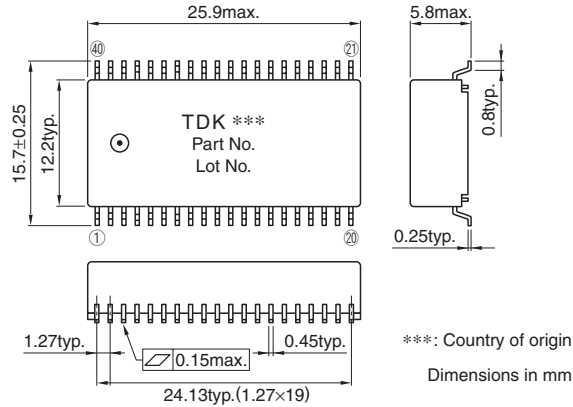
FEATURES

- 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).

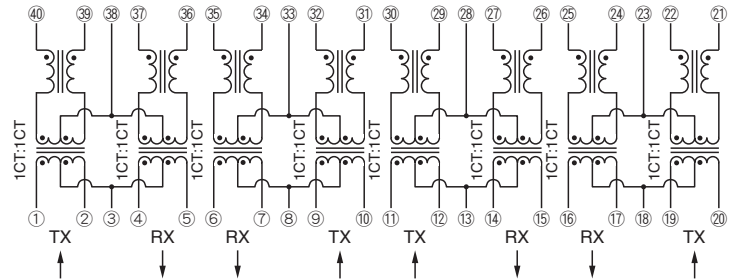
GENERAL SPECIFICATIONS

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]	

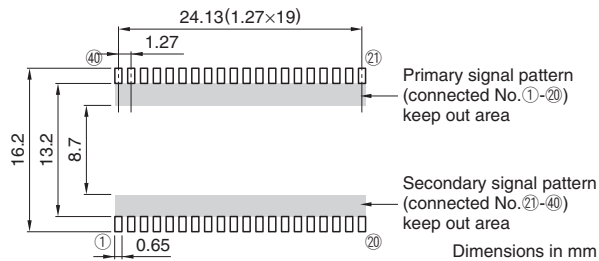
SHAPES AND DIMENSIONS



CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERN



ELECTRICAL CHARACTERISTICS

Part No.	Turns ratio ①③②:④③③③..... ④③⑤:③③③③.....	Inductance (μH)min. [DC bias 8mA, 100kHz]	Insertion loss (dB)max. [0.1 to 100MHz]	Inter-winding stray capacitance (pF)max.[100kHz]
TLA-6T406(-T)	1CT:1CT 1CT:1CT	350 350	1 1	40 40

- Ta=25°C

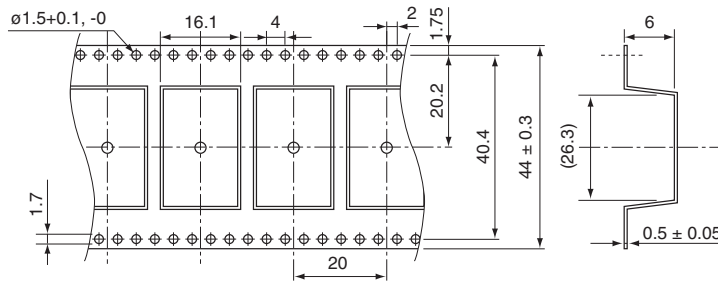
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

PACKAGING STYLES

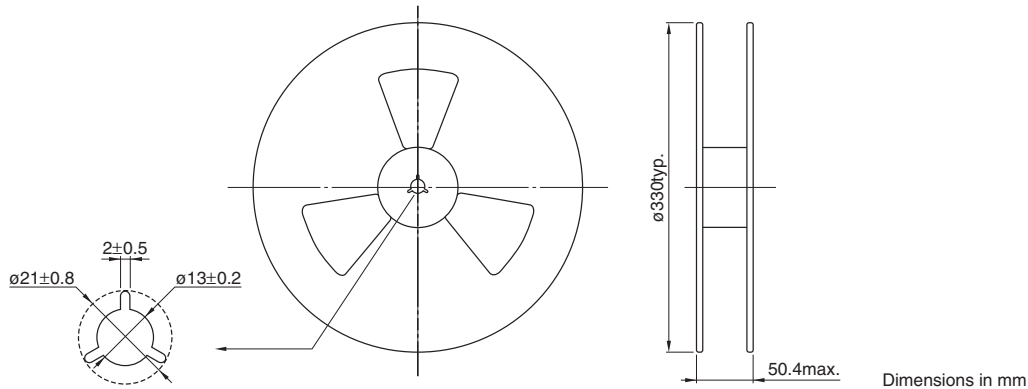
Quantity : 500pieces/reel

TAPE DIMENSIONS



Dimensions in mm

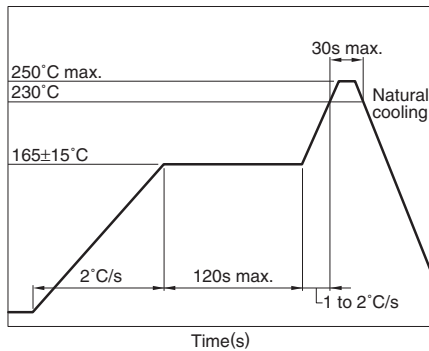
REEL DIMENSIONS



Dimensions in mm

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

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

TLA-7T101LF(-T) ISO8802.3(IEEE802.3) 10/100/1000BASE-T

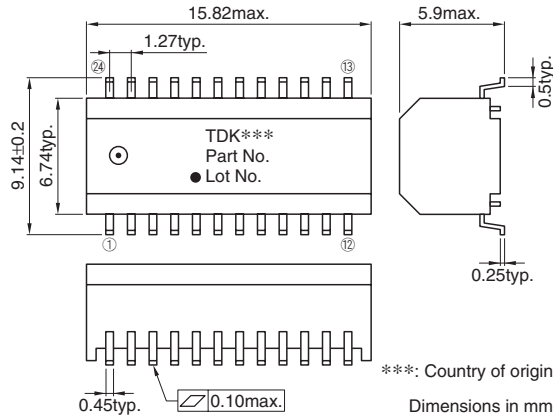
FEATURES

- Product conforming to RoHS directive.
- Can be mounted with lead-free solder (260°C max.).
- 24-pin SMD package(1.27mm=50mil pin pitch).
- Excellent common-mode noise suppression.
- Inductance is 350 μ H 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-7T101LF-T: Tape and reel, TLA-7T101LF: Bulk).

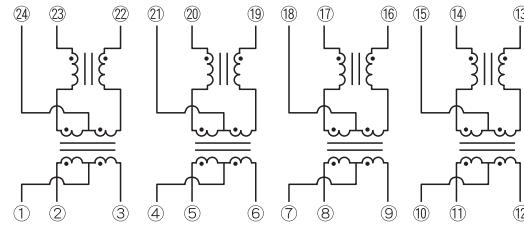
GENERAL SPECIFICATIONS

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

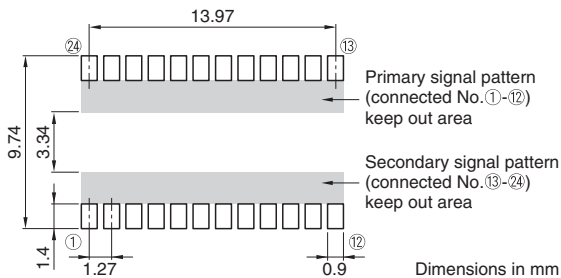
SHAPES AND DIMENSIONS



CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERN



ELECTRICAL CHARACTERISTICS

Part No.	Turns ratio	Inductance (μ H)min. [DC bias 8mA, 100kHz]	Insertion loss (dB)max. [0.1 to 100MHz]	Inter-winding stray capacitance (pF)max.[100kHz]
	②①③ : ⑳⑳②②	⑳⑳②②	②③-⑳⑳②②	②③-⑳⑳②②
	⑤④⑥ : ⑳②①①⑨	⑳①⑨	⑤⑥-⑳①⑨	⑤⑥-⑳①⑨
	⑧⑦⑨ : ⑰⑱⑱⑱	⑰⑱	⑧⑨-⑰⑱	⑧⑨-⑰⑱
	⑪⑩⑫ : ⑭⑮⑮⑮	⑭⑬	⑪⑫-⑭⑬	⑪⑫-⑭⑬
TLA-7T101LF(-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.