

# LAN Components

## 10/100BASE-TX

### Pulse Transformers

TLA-6T102/103/106/107/109/110/111/112/115/116/117/  
118/119/120/121/122/124/401/402/403/404/405

#### TLA-6T102

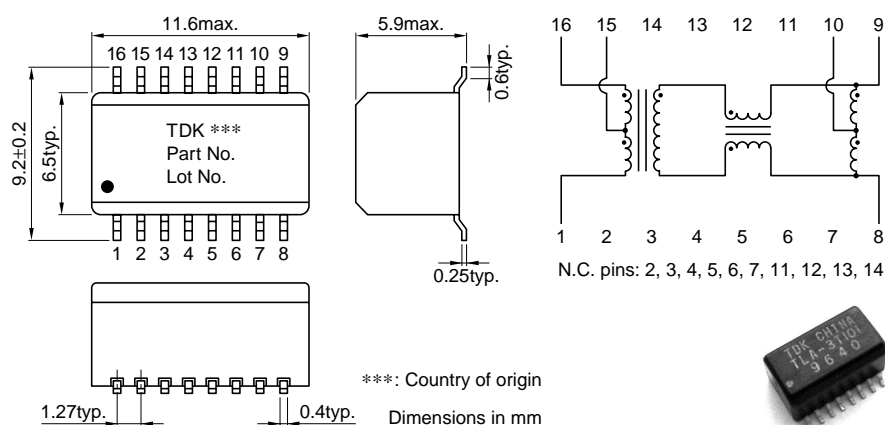
##### FEATURES

- 16-pin SOP package(1.27mm=50mil pin pitch).
- Excellent common-mode noise suppression.
- Greater than  $350\mu\text{H}$ [100kHz] at DC current bias 8mA.
- Using the high-quality and wide-band ferrite cores for LAN.
- Suitable for use with NS's DP83843, MICRO LINEAR's ML6673, 6674, ICS's ICS1890, TSC's 78Q2120.
- Tape and reel packaging are available(TLA-6T102-T: Tape and reel, TLA-6T102: Bulk).
- ISO9001/QS9000 quality standards certification.

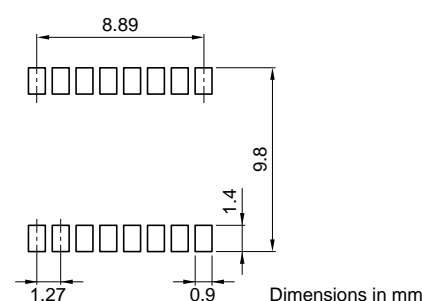
##### GENERAL SPECIFICATIONS

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

##### SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



##### RECOMMENDED PC BOARD PATTERN



##### ELECTRICAL CHARACTERISTICS

Part No.	Turns ratio	Insertion loss (dB)max. [0.1 to 100MHz]	C.M.R.R.(dB)min. [Common to Differential]	Inter-winding stray capacitance (pF)max.[100kHz]
TLA-6T102(-T)	1,15,16 : 8,10,9	1,16-8,9	1,16-8,9	1,16-8,9
	1CT:1CT	1	45[0.1 to 60MHz] 43[60 to 100MHz]	15

- Ta=25°C

# LAN Components

## 10/100BASE-TX

### Pulse Transformers

TLA-6T102/103/106/107/109/110/111/112/115/116/117/  
118/119/120/121/122/124/401/402/403/404/405

#### TLA-6T103

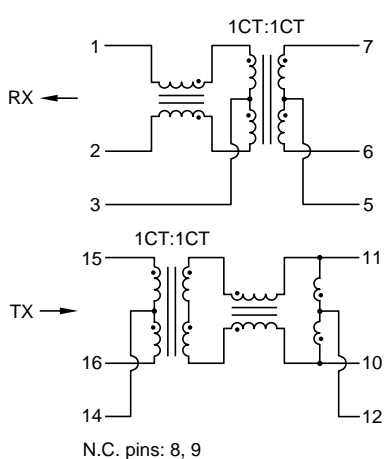
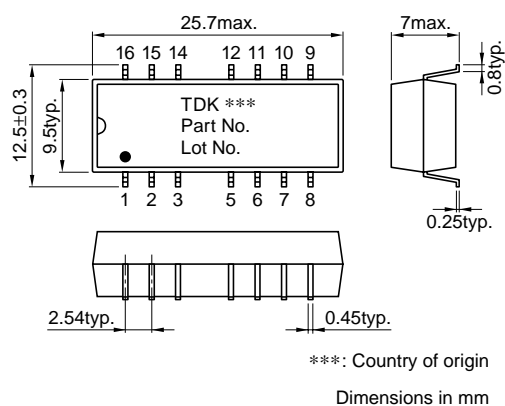
##### FEATURES

- 16-pin SOP package(2.54mm=100mil pin pitch).
- Excellent common-mode noise suppression.
- Greater than 350 $\mu$ H[100kHz] at DC current bias 8mA.
- Using the high-quality and wide-band ferrite cores for LAN.
- Suitable for use with NS's DP83843, LEVEL ONE's LXT970A, MICRO LINEAR's ML6673, 6674, ICS's ICS1890, TSC's 78Q2120.
- Tape and reel packaging are available(TLA-6T103-T: Tape and reel, TLA-6T103: Bulk).
- ISO9001/QS9000 quality standards certification.

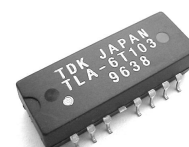
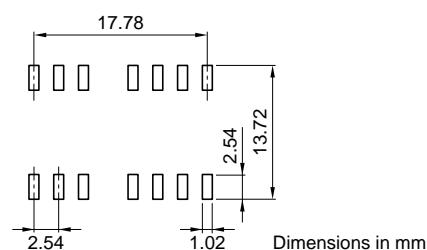
##### GENERAL SPECIFICATIONS

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

##### SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



##### RECOMMENDED PC BOARD PATTERN



##### ELECTRICAL CHARACTERISTICS

Part No.	Turns ratio	Insertion loss (dB)max.	C.M.R.R.(dB)min. [Common to Differential]	Inter-winding stray capacitance (pF)max.[100kHz]
	15,14,16 : 11,12,10 1,3,2 : 7,5,6	[0.1 to 100MHz] 15,16-11,10 7,6-1,2	[0.1 to 60/60 to 100MHz] 15,16-11,10 7,6-1,2	15,16-11,10 1,2-7,6
TLA-6T103(-T)	1CT:1CT 1CT:1CT	1 1	45/43 40/38	18 18

- Ta=25°C

# LAN Components

## 10/100BASE-TX

### Pulse Transformers

TLA-6T102/103/106/107/109/110/111/112/115/116/117/  
118/119/120/121/122/124/401/402/403/404/405

#### TLA-6T106/111

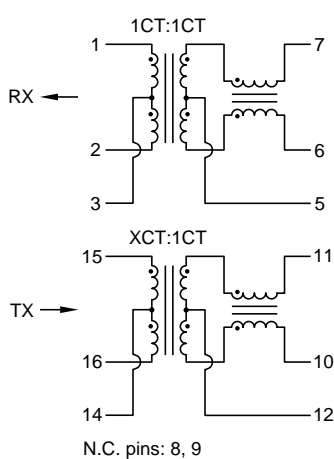
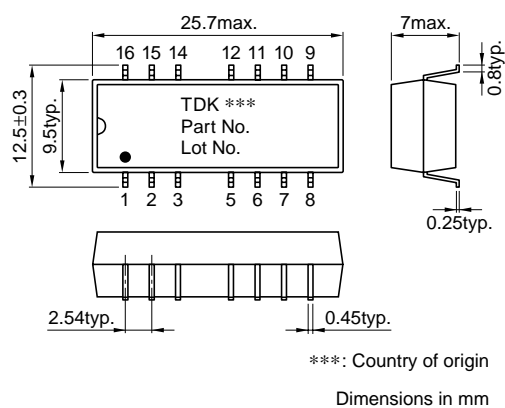
##### FEATURES

- 16-pin SOP package(2.54mm=100mil pin pitch).
- Excellent common-mode noise suppression.
- Using the high-quality and wide-band ferrite cores for LAN.
- TLA-6T106 is suitable for use with QSI's QS6611.
- TLA-6T111 is suitable for use with QSI's QS6612.
- Tape and reel packaging are available(TLA-6T1 □ □ -T: Tape and reel, TLA-6T1 □ □ : Bulk).
- ISO9001/QS9000 quality standards certification.

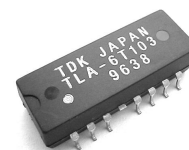
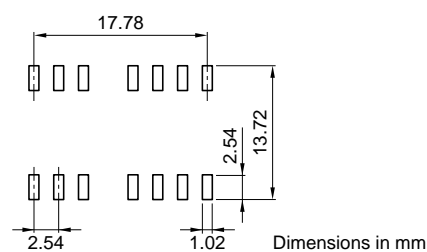
##### GENERAL SPECIFICATIONS

Pulse transformer	2
Common-mode choke	2
Port	1
Operating temperature range	0 to +70°C
Storage temperature range	-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 (μH)min. [DC bias 8mA, 100kHz]	Insertion loss (dB)max. [0.1 to 100MHz]	Inter-winding stray capacitance (pF)max.[100kHz]
	16,14,15 : 10,12,11 1,3,2 : 7,5,6	10-11 7-6	16,15-10,11 7,6-1,2	16,15-10,11 1,2-7,6
TLA-6T106(-T)	1.41CT:1CT 1CT:1CT	350 350	2 1	25 25
TLA-6T111(-T)	1.25CT:1CT 1CT:1CT	350 350	2 1	25 25

- Ta=25°C

# LAN Components

## 10/100BASE-TX

### Pulse Transformers

TLA-6T102/103/106/107/109/110/111/112/115/116/117/  
118/119/120/121/122/124/401/402/403/404/405

#### TLA-6T107

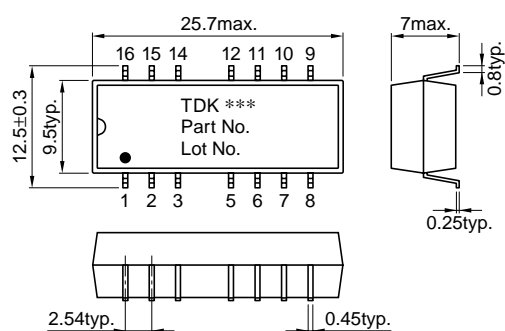
##### FEATURES

- 16-pin SOP package(2.54mm=100mil pin pitch).
- Excellent common-mode noise suppression.
- Using the high-quality and wide-band ferrite cores for LAN.
- Suitable for use with LSI LOGIC's 80220/80221.
- Tape and reel packaging are available(TLA-6T107-T: Tape and reel, TLA-6T107: Bulk).
- ISO9001/QS9000 quality standards certification.

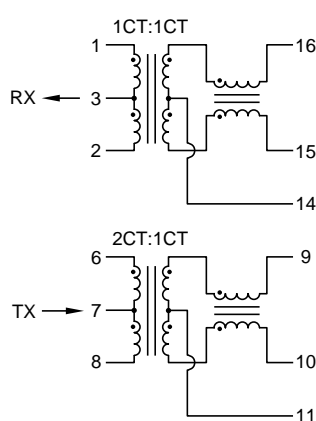
##### GENERAL SPECIFICATIONS

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

##### SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM

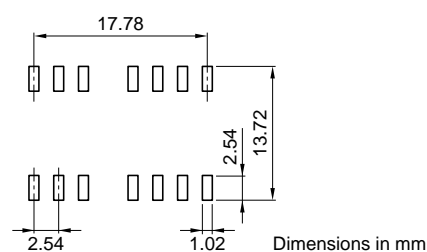


\*\*\*: Country of origin  
Dimensions in mm

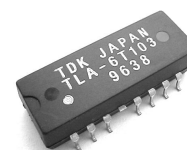


N.C. pins: 5, 12

##### RECOMMENDED PC BOARD PATTERN



Dimensions in mm



##### ELECTRICAL CHARACTERISTICS

Part No.	Turns ratio	Inductance ( $\mu$ H)min. [DC bias 8mA, 100kHz]	Insertion loss (dB)max. [0.1 to 100MHz]	Inter-winding stray capacitance (pF)max.[100kHz]
	6,7,8 : 9,11,10 1,3,2 : 16,14,15	9-10 16-15	6,8-9,10 16,15-1,2	6,8-9,10 1,2-16,15
TLA-6T107(-T)	2CT:1CT 1CT:1CT	350 350	3.5 1	25 25

- Ta=25°C

# LAN Components

## 10/100BASE-TX

### Pulse Transformers

TLA-6T102/103/106/107/109/110/111/112/115/116/117/  
118/119/120/121/122/124/401/402/403/404/405

#### TLA-6T109/112

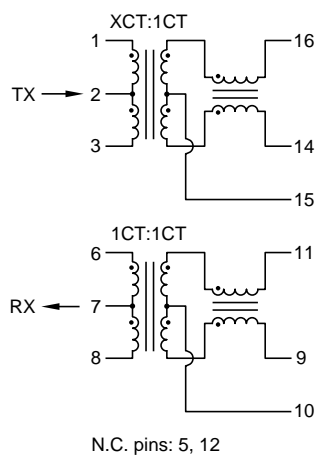
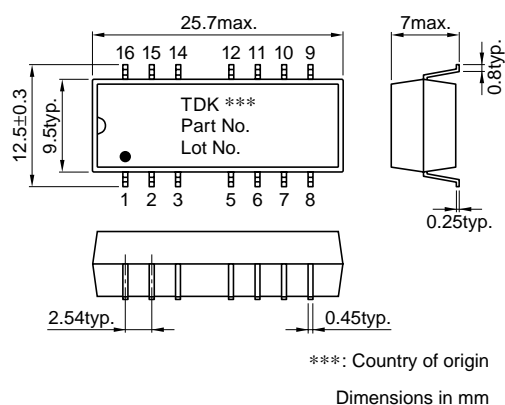
##### FEATURES

- 16-pin SOP package(2.54mm=100mil pin pitch).
- Excellent common-mode noise suppression.
- Using the high-quality and wide-band ferrite cores for LAN.
- TLA-6T109 is suitable for use with QSI's QS6611.
- TLA-6T112 is suitable for use with QSI's QS6612.
- Tape and reel packaging are available(TLA-6T1 □□-T: Tape and reel, TLA-6T1 □□: Bulk).
- ISO9001/QS9000 quality standards certification.

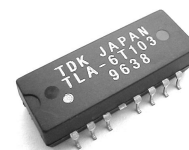
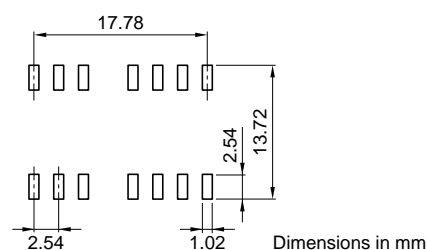
##### GENERAL SPECIFICATIONS

Pulse transformer	2
Common-mode choke	2
Port	1
Operating temperature range	0 to +70°C
Storage temperature range	-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 ( $\mu$ H)min. [DC bias 8mA, 100kHz]	Insertion loss (dB)max. [0.1 to 100MHz]	Inter-winding stray capacitance (pF)max.[100kHz]
	1,2,3 : 16,15,14 6,7,8 : 11,10,9	16-14 11-9	1,3-16,14 11,9-6,8	1,3-16,14 6,8-11,9
TLA-6T109(-T)	1.41CT:1CT 1CT:1CT	350 350	2 1	25 25
TLA-6T112(-T)	1.25CT:1CT 1CT:1CT	350 350	2 1	25 25

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

# LAN Components

## 10/100BASE-TX

### Pulse Transformers

TLA-6T102/103/106/107/109/110/111/112/115/116/117/  
118/119/120/121/122/124/401/402/403/404/405

#### TLA-6T110

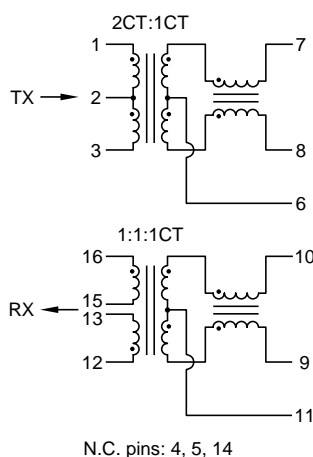
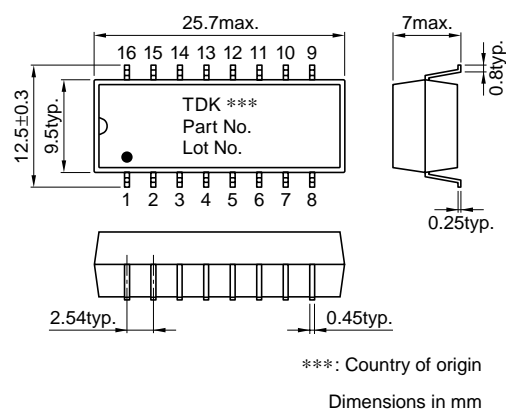
##### FEATURES

- 16-pin SOP package(2.54mm=100mil pin pitch).
- Excellent common-mode noise suppression.
- Using the high-quality and wide-band ferrite cores for LAN.
- Suitable for use with MICRO LINEAR's ML6694(MICRO LINEAR recommends).
- Tape and reel packaging are available(TLA-6T110-T: Tape and reel, TLA-6T110: Bulk).
- ISO9001/QS9000 quality standards certification.

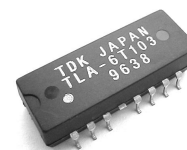
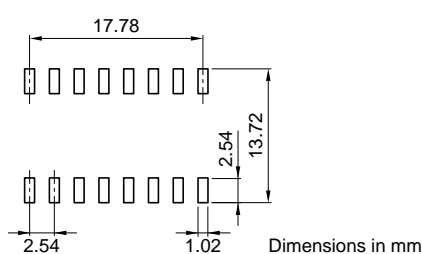
##### GENERAL SPECIFICATIONS

Pulse transformer	2
Common-mode choke	2
Port	1
Operating temperature range	0 to +70°C
Storage temperature range	-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 ( $\mu$ H)min. [DC bias 8mA, 100kHz]	Insertion loss (dB)max. [0.1 to 100MHz]	Inter-winding stray capacitance (pF)max.[100kHz]
	1,2,3 : 7,6,8 16,15:12,13:10,11,9	7-8 10-9	1,3-7,8 10,9-16,15[12,13]	1,3-7,8 16,15[12,13]-10,9
TLA-6T110(-T)	2CT:1CT 1:1:1CT	350 350	3.5 1	25 20

- Ta=25°C

# LAN Components

## 10/100BASE-TX

### Pulse Transformers

TLA-6T102/103/106/107/109/110/111/112/115/116/117/  
118/119/120/121/122/124/401/402/403/404/405

#### TLA-6T115/124

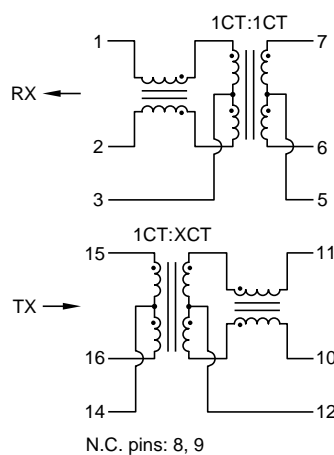
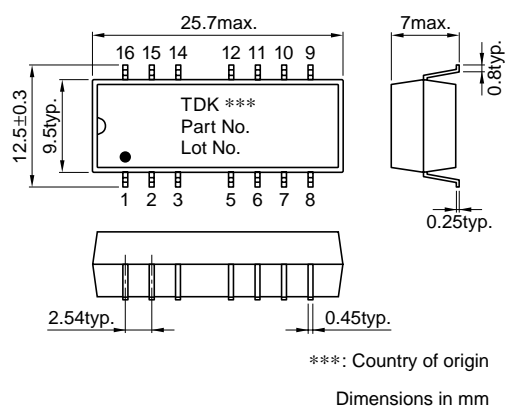
#### FEATURES

- 16-pin SOP package(2.54mm=100mil pin pitch).
- Excellent common-mode noise suppression.
- Using the high-quality and wide-band ferrite cores for LAN.
- TLA-6T115 is suitable for use with NS's DP83843, MICRO LINEAR's ML6673, 6674, ICS's ICS1890, TSC's 78Q2120.
- TLA-6T124 is suitable for use with AMD's Am79C973, 975.
- Tape and reel packaging are available(TLA-6T1□□-T: Tape and reel, TLA-6T1□□: Bulk).
- ISO9001/QS9000 quality standards certification.

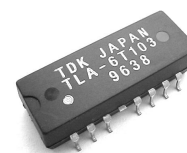
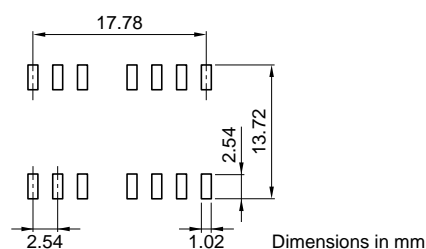
#### GENERAL SPECIFICATIONS

Pulse transformer	2
Common-mode choke	2
Port	1
Operating temperature range	0 to +70°C
Storage temperature range	-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 ( $\mu$ H)min. [DC bias 8mA, 100kHz]	Insertion loss (dB)max. [0.1 to 100MHz]	Inter-winding stray capacitance (pF)max.[100kHz]
	15,14,16 : 11,12,10 1,3,2 : 7,5,6	11-10 7-6	15,16-11,10 7,6-1,2	15,16-11,10 1,2-7,6
TLA-6T115(-T)	1CT:1CT	350	1	18
	1CT:1CT	350	1	18
TLA-6T124(-T)	1CT:1.41CT	350	2	25
	1CT:1CT	350	1	25

- Ta=25°C

# LAN Components

## 10/100BASE-TX

### Pulse Transformers

TLA-6T102/103/106/107/109/110/111/112/115/116/117/  
118/119/120/121/122/124/401/402/403/404/405

#### TLA-6T116

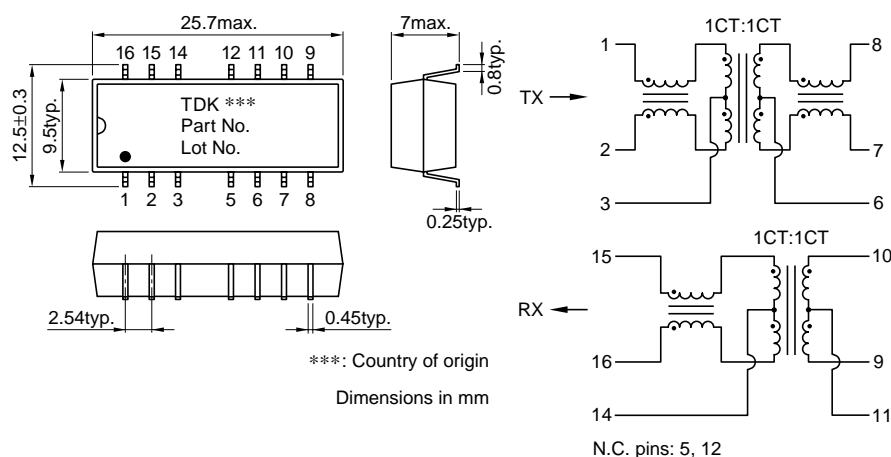
##### FEATURES

- 16-pin SOP package(2.54mm=100mil pin pitch).
- Excellent common-mode noise suppression.
- Using the high-quality and wide-band ferrite cores for LAN.
- Suitable for use with NS's DP83843, MICRO LINEAR's ML6673, 6674, ICS's ICS1890, TSC's 78Q2120.
- Tape and reel packaging are available(TLA-6T116-T: Tape and reel, TLA-6T116: Bulk).
- ISO9001/QS9000 quality standards certification.

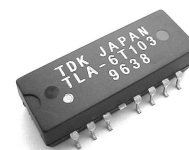
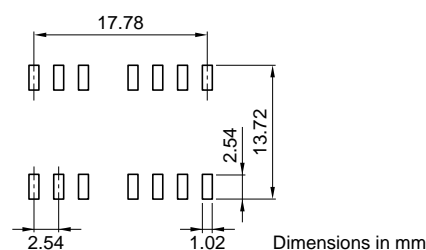
##### GENERAL SPECIFICATIONS

Pulse transformer	2
Common-mode choke	3
Port	1
Operating temperature range	0 to +70°C
Storage temperature range	-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 ( $\mu$ H)min. [DC bias 8mA, 100kHz]	Insertion loss (dB)max. [0.1 to 100MHz]	Inter-winding stray capacitance (pF)max.[100kHz]
	1,3,2 : 8,6,7 16,14,15: 9,11,10	7-8 9-10	1,2-8,7 9,10-16,15	1,2-8,7 16,15-9,10
TLA-6T116(-T)	1CT:1CT 1CT:1CT	350 350	1 1	25 25

- Ta=25°C



# LAN Components

## 10/100BASE-TX

### Pulse Transformers

TLA-6T102/103/106/107/109/110/111/112/115/116/117/  
118/119/120/121/122/124/401/402/403/404/405

#### TLA-6T117

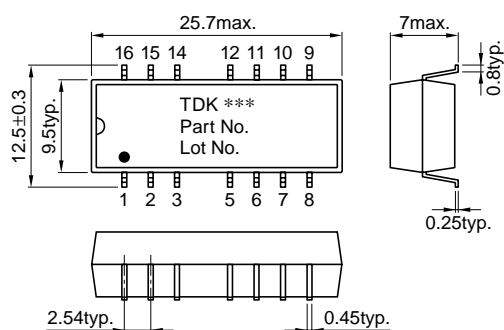
#### FEATURES

- 16-pin SOP package(2.54mm=100mil pin pitch).
- Excellent common-mode noise suppression.
- Using the high-quality and wide-band ferrite cores for LAN.
- Suitable for use with NS's DP83843, MICRO LINEAR's ML6673, 6674, ICS's ICS1890, TSC's 78Q2120.
- Tape and reel packaging are available(TLA-6T117-T: Tape and reel, TLA-6T117: Bulk).
- ISO9001/QS9000 quality standards certification.

#### GENERAL SPECIFICATIONS

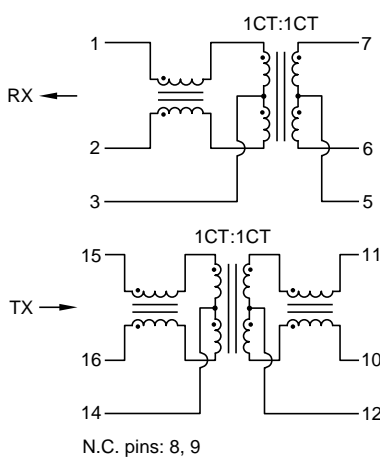
Pulse transformer	2
Common-mode choke	3
Port	1
Operating temperature range	0 to +70°C
Storage temperature range	-40 to +85°C
Withstanding voltage	Erms:1500V[60s]

#### SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM

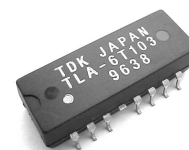
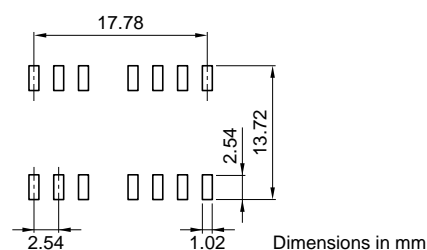


\*\*\*: Country of origin

Dimensions in mm



#### RECOMMENDED PC BOARD PATTERN



#### ELECTRICAL CHARACTERISTICS

Part No.	Turns ratio	Inductance ( $\mu$ H)min. [DC bias 8mA, 100kHz]	Insertion loss (dB)max. [0.1 to 100MHz]	Inter-winding stray capacitance (pF)max.[100kHz]
	15,14,16 : 11,12,10 1,3,2: 7,5,6	11-10 7-6	15,16-11,10 7,6-1,2	15,16-11,10 1,2-7,6
TLA-6T117(-T)	1CT:1CT 1CT:1CT	350 350	1 1	25 25

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

# LAN Components

## 10/100BASE-TX

### Pulse Transformers

TLA-6T102/103/106/107/109/110/111/112/115/116/117/  
118/119/120/121/122/124/401/402/403/404/405

#### TLA-6T118/119/120/121/122

#### FEATURES

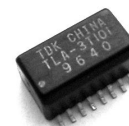
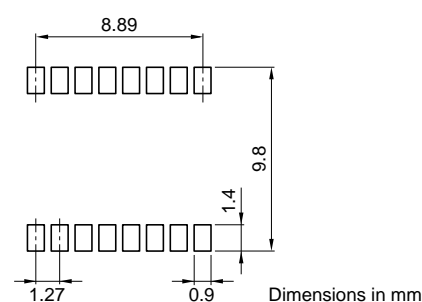
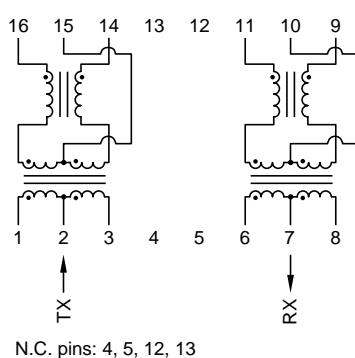
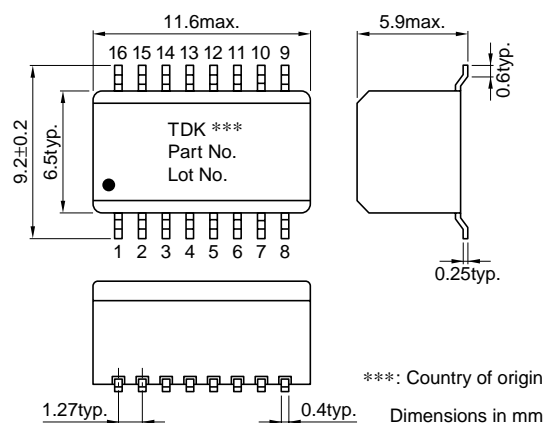
- 16-pin SOP package(1.27mm=50mil pin pitch).
- TLA-6T118 is suitable for use with NS's DP83843, TSC's 78Q2120, MICRO LINEAR's ML6673, 6674, ICS's ICS1890.
- TLA-6T119 is suitable for use with QSI's QS6611.
- TLA-6T120 is suitable for use with LSI LOGIC's 80220, 80221.
- TLA-6T121 is suitable for use with ADM's Am79C973, 975.
- TLA-6T122 is suitable for use with QSI's QS6612.
- Tape and reel packaging are available(TLA-6T1 □ □ -T: Tape and reel, TLA-6T1 □ □ : Bulk).
- ISO9001/QS9000 quality standards certification.

#### GENERAL SPECIFICATIONS

Pulse transformer	2
Common-mode choke	2
Port	1
Operating temperature range	0 to +70°C
Storage temperature range	-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 ( $\mu$ H)min. [DC bias 8mA, 100kHz]	Insertion loss (dB)max. [0.1 to 100MHz]	Inter-winding stray capacitance (pF)max.[100kHz]
	1,2,3 : 16,15,14 6,7,8 : 11,10,9	16-14 11-9	1,3-16,14 11,9-6,8	1,3-16,14 6,8-11,9
TLA-6T118(-T)	1CT:1CT 1CT:1CT	350 350	1 1	25 25
TLA-6T119(-T)	1.41CT:1CT 1CT:1CT	350 350	2 1	25 25
TLA-6T120(-T)	2CT:1CT 1CT:1CT	350 350	3.5 1	25 25
TLA-6T121(-T)	1CT:1.41CT 1CT:1CT	350 350	2.5 1	25 25
TLA-6T122(-T)	1.25CT:1CT 1CT:1CT	350 350	2 1	25 25

•  $T_a=25^\circ\text{C}$

# LAN Components

## 10/100BASE-TX

### Pulse Transformers

TLA-6T102/103/106/107/109/110/111/112/115/116/117/  
118/119/120/121/122/124/401/402/403/404/405

#### TLA-6T401

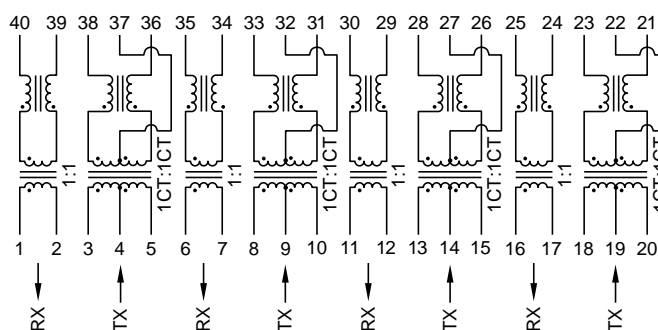
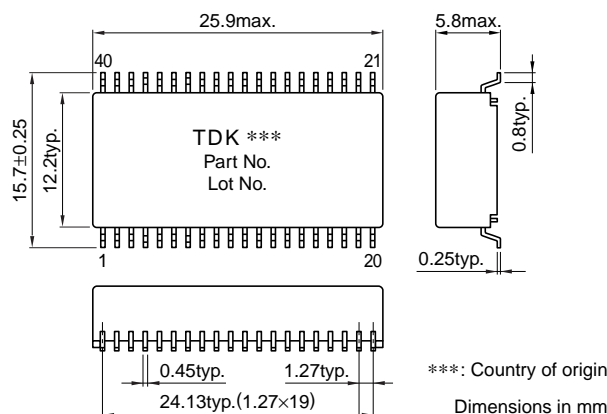
#### FEATURES

- 40-pin SOP package(1.27mm=50mil pin pitch) for Quad port.
- Excellent common-mode noise suppression.
- Using the high-quality and wide-band ferrite cores for LAN.
- High reliability for reflow process.
- Excellent pin planarity.
- Tape and reel packaging are available(TLA-6T401-T: Tape and reel, TLA-6T401: Bulk).
- ISO9001/QS9000 quality standards certification.

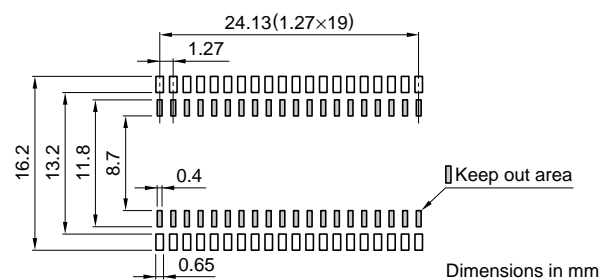
#### GENERAL SPECIFICATIONS

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

#### SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



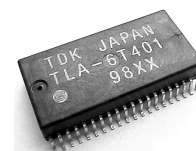
#### RECOMMENDED PC BOARD PATTERN



#### ELECTRICAL CHARACTERISTICS

Part No.	Turns ratio	Inductance (μH)min. [DC bias 8mA, 100kHz]	Insertion loss (dB)max. [0.1 to 100MHz]	Inter-winding stray capacitance (pF)max.[100kHz]
	3,4,5 : 38,37,36,.....	38-36,.....	3,5-38,36,.....	3,5-38,36,.....
	1,2: 40,39,.....	40-39,.....	40,39-1,2,.....	1,2-40,39,.....
TLA-6T401(-T)	1CT:1CT	350	1	25
	1:1	350	1	25

- Ta=25°C



# LAN Components

## 10/100BASE-TX

### Pulse Transformers

TLA-6T102/103/106/107/109/110/111/112/115/116/117/  
118/119/120/121/122/124/401/402/403/404/405

#### TLA-6T402

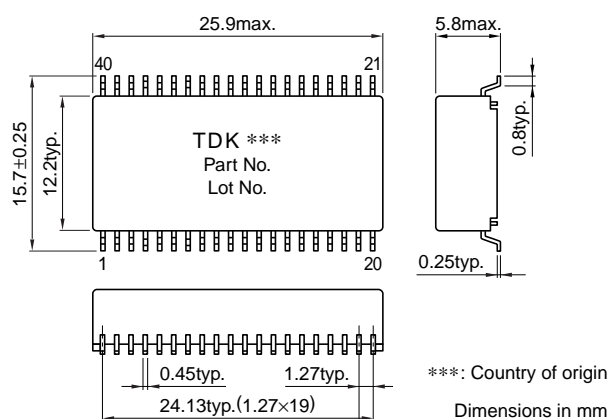
#### FEATURES

- 40-pin SOP package(1.27mm=50mil pin pitch) for Quad port.
- Excellent common-mode noise suppression.
- Using the high-quality and wide-band ferrite cores for LAN.
- High reliability for reflow process.
- Excellent pin planarity.
- Suitable for use with LEVEL ONE's LXT974A, 975A, 980, 983.
- Tape and reel packaging are available(TLA-6T402-T: Tape and reel, TLA-6T402: Bulk).
- ISO9001/QS9000 quality standards certification.

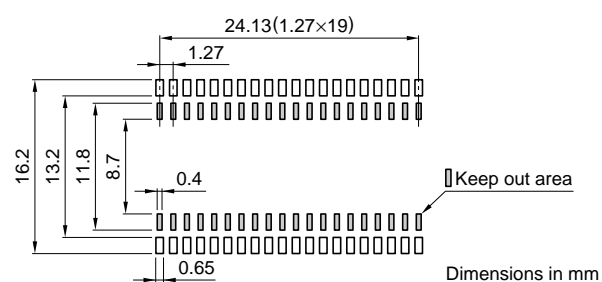
#### GENERAL SPECIFICATIONS

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

#### SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



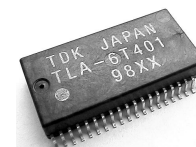
#### RECOMMENDED PC BOARD PATTERN



#### ELECTRICAL CHARACTERISTICS

Part No.	Turns ratio	Inductance (μH)min.	Insertion loss (dB)max.	Inter-winding stray capacitance (pF)max.[100kHz]
	3,4,5 : 38,37,36,.....	[DC bias 8mA, 100kHz]	[0.1 to 100MHz]	
	1,2: 40,39,.....	38-36,.....	3,5-38,36,.....	3,5-38,36,.....
		40-39,.....	40,39-1,2,.....	1,2-40,39,.....
TLA-6T402(-T)	2CT:1CT	350	3.5	25
	1:1	350	1	25

- Ta=25°C



# LAN Components

## 10/100BASE-TX Pulse Transformers

TLA-6T102/103/106/107/109/110/111/112/115/116/117/  
118/119/120/121/122/124/401/402/403/404/405

### TLA-6T403

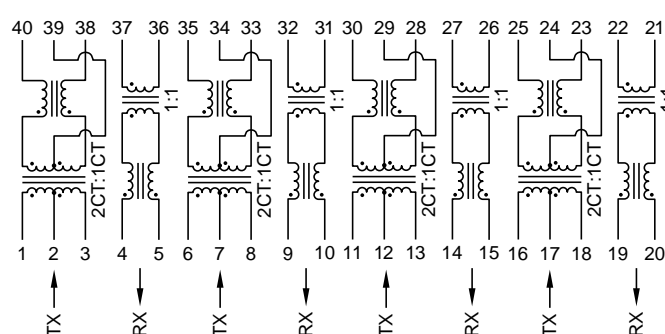
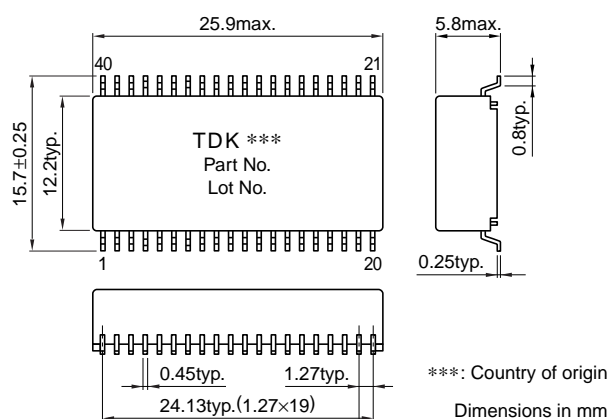
#### FEATURES

- 40-pin SOP package(1.27mm=50mil pin pitch) for Quad port.
- Excellent common-mode noise suppression.
- Using the high-quality and wide-band ferrite cores for LAN.
- High reliability for reflow process.
- Excellent pin planarity.
- Suitable for use with LEVEL ONE's LXT974A, 975A, 980, 983.
- Tape and reel packaging are available(TLA-6T403-T: Tape and reel, TLA-6T403: Bulk).
- ISO9001/QS9000 quality standards certification.

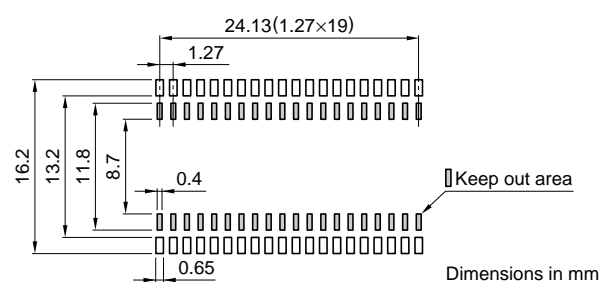
#### GENERAL SPECIFICATIONS

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

#### SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



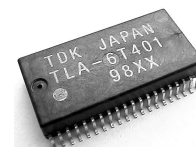
#### RECOMMENDED PC BOARD PATTERN



#### ELECTRICAL CHARACTERISTICS

Part No.	Turns ratio	Inductance (μH)min. [DC bias 8mA, 100kHz]	Insertion loss (dB)max. [0.1 to 100MHz]	Inter-winding stray capacitance (pF)max.[100kHz]
	1,2,3 : 40,39,38,..... 4,5: 37,36,.....	40-38,..... 37-36,.....	1,3-40,38,..... 37,36-4,5,.....	1,3-40,38,..... 4,5-37,36,.....
TLA-6T403(-T)	2CT:1CT 1:1	350 350	3.5 1	25 25

- Ta=25°C



# LAN Components

## 10/100BASE-TX

### Pulse Transformers

TLA-6T102/103/106/107/109/110/111/112/115/116/117/  
118/119/120/121/122/124/401/402/403/404/405

#### TLA-6T404

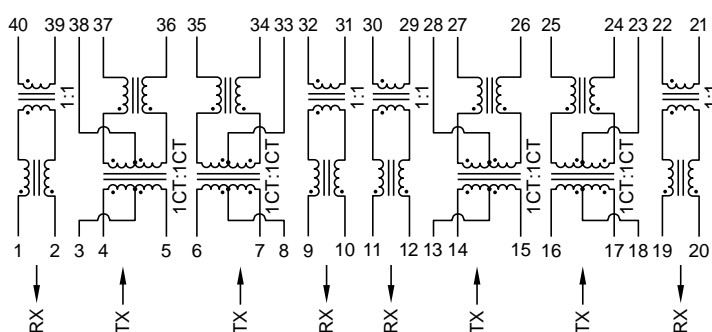
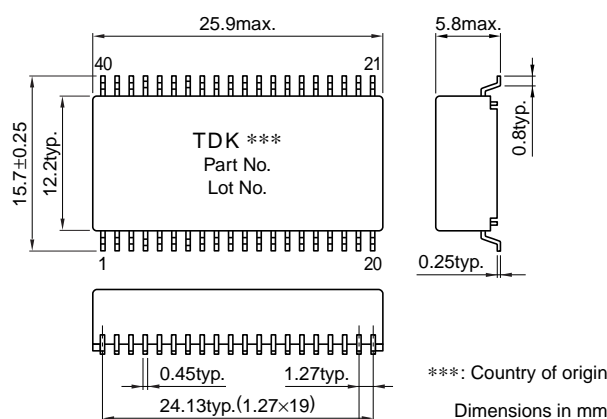
#### FEATURES

- 40-pin SOP package(1.27mm=50mil pin pitch) for Quad port.
- Excellent common-mode noise suppression.
- Using the high-quality and wide-band ferrite cores for LAN.
- High reliability for reflow process.
- Excellent pin planarity.
- Suitable for use with BROADCOM's BCM5208, 5203.
- Tape and reel packaging are available(TLA-6T404-T: Tape and reel, TLA-6T404: Bulk).
- ISO9001/QS9000 quality standards certification.

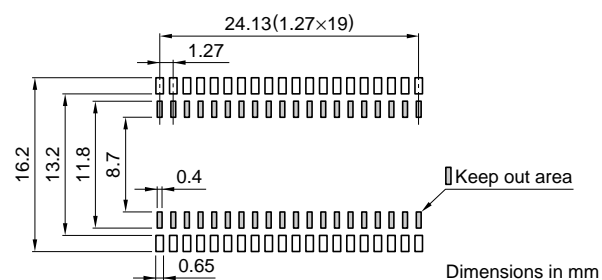
#### GENERAL SPECIFICATIONS

Pulse transformer	8
Common-mode choke	8
Port	4
Operating temperature range	0 to +70°C
Storage temperature range	-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 ( $\mu$ H)min. [DC bias 8mA, 100kHz]	Insertion loss (dB)max. [0.1 to 100MHz]	Inter-winding stray capacitance (pF)max.[100kHz]
	4,3,5 : 37,38,36,..... 1,2: 40,39,.....	37-36,..... 40-39,.....	4,5-37,36,..... 40,39-1,2,.....	4,5-37,36,..... 1,2-40,39,.....
TLA-6T404(-T)	1CT:1CT 1:1	350 350	1 1	25 25

- Ta=25°C



# LAN Components

## 10/100BASE-TX

### Pulse Transformers

TLA-6T102/103/106/107/109/110/111/112/115/116/117/  
118/119/120/121/122/124/401/402/403/404/405

#### TLA-6T405

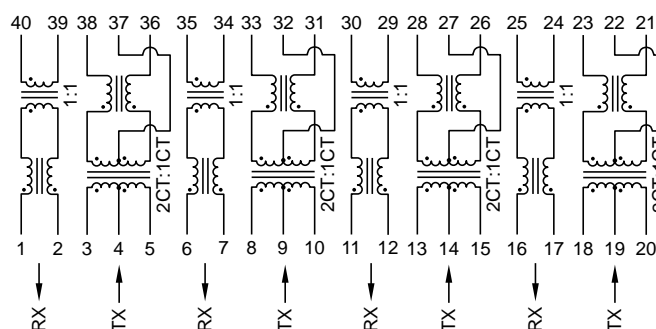
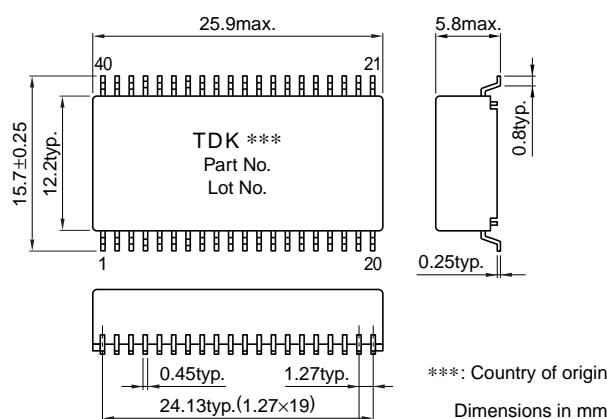
##### FEATURES

- 40-pin SOP package(1.27mm=50mil pin pitch) for Quad port.
- Excellent common-mode noise suppression.
- Using the high-quality and wide-band ferrite cores for LAN.
- High reliability for reflow process.
- Excellent pin planarity.
- Suitable for use with LEVEL ONE's LXT974A, 975A, 980, 983.
- Tape and reel packaging are available(TLA-6T405-T: Tape and reel, TLA-6T405: Bulk).
- ISO9001/QS9000 quality standards certification.

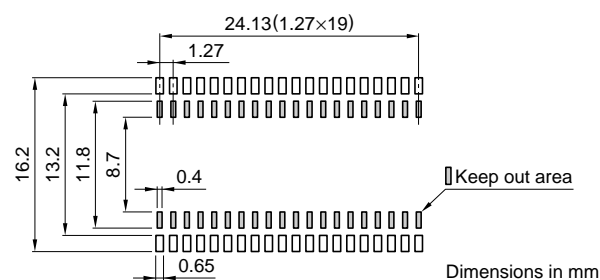
##### GENERAL SPECIFICATIONS

Pulse transformer	8
Common-mode choke	8
Port	4
Operating temperature range	0 to +70°C
Storage temperature range	-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 ( $\mu$ H)min. [DC bias 8mA, 100kHz]	Insertion loss (dB)max. [0.1 to 100MHz]	Inter-winding stray capacitance (pF)max.[100kHz]
	3,4,5 : 38,37,36,..... 1,2: 40,39,.....	38-36,..... 40-39,.....	3,5-38,36,..... 40,39-1,2,.....	3,5-38,36,..... 1,2-40,39,.....
TLA-6T405(-T)	2CT:1CT 1:1	350 350	3.5 1	25 25

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



# LAN Components

## 10/100BASE-TX

### Pulse Transformers

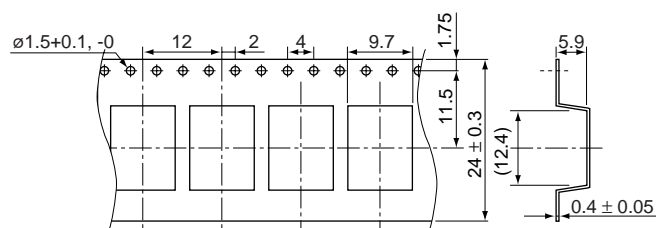
TLA-6T102/103/106/107/109/110/111/112/115/116/117/  
118/119/120/121/122/124/401/402/403/404/405

TLA-6T102-T/118-T/119-T/120-T/121-T/122-T

#### PACKAGING STYLES

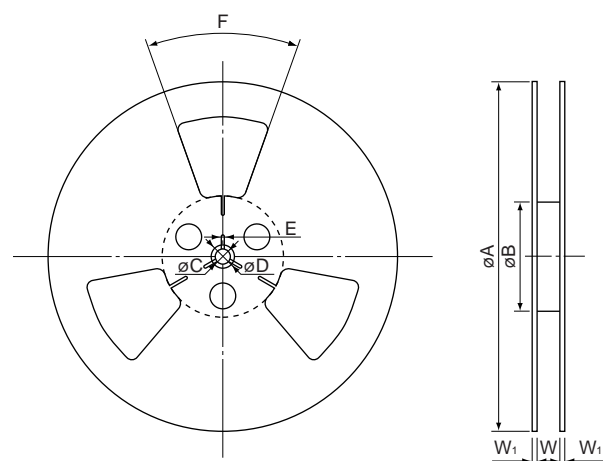
Quantity : 1000pieces/reel

#### TAPE DIMENSIONS



Dimensions in mm

#### REEL DIMENSIONS

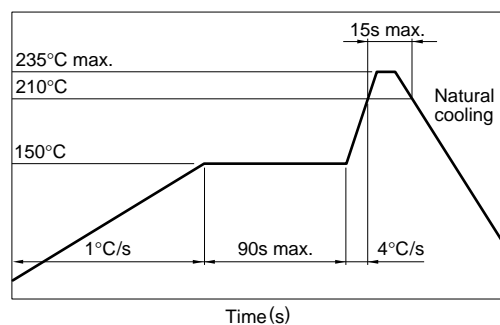


Dimensions in mm

A	B	C	D	E	F	W	W <sub>1</sub>
$\phi 330 \pm 2$	$\phi 80 \pm 1$	$\phi 13.5 \pm 0.2$	$\phi 21 \pm 0.8$	$2 \pm 0.5$	3-40°	$24.4 + 2, -0$	$2 \pm 0.5$

#### RECOMMENDED SOLDERING CONDITION

##### REFLOW SOLDERING



- Temperature is measured on the top of products body(Using thermocoupler for measurement).
- This profile is reference data we recommend. Please check in your actual process.



# LAN Components

## 10/100BASE-TX

### Pulse Transformers

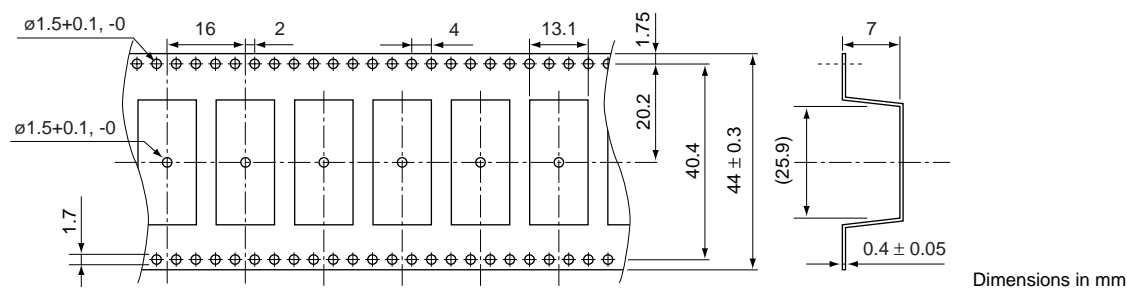
TLA-6T102/103/106/107/109/110/111/112/115/116/117/  
118/119/120/121/122/124/401/402/403/404/405

TLA-6T103-T/106-T/107-T/109-T/110-T/111-T/112-T/115-T/116-T/117-T/124-T

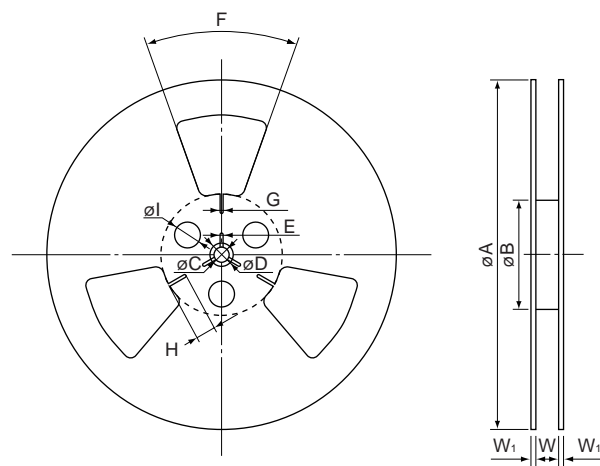
#### PACKAGING STYLES

Quantity : 500pieces/reel

#### TAPE DIMENSIONS



#### REEL DIMENSIONS

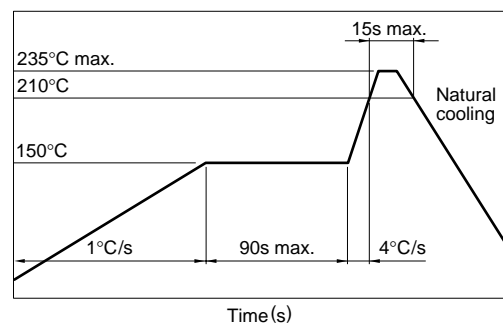


Dimensions in mm

A	B	C	D	E	F	G	H	I	W	W <sub>1</sub>
$\phi 330+0, -2$	$\phi 100+1, -0$	$\phi 13.5\pm 0.2$	$\phi 21\pm 0.8$	$2\pm 0.5$	$3-40^\circ$	$2.5\pm 0.3$	$12\pm 0.3$	$3-\phi 22\pm 0.3$	$45.5\pm 0.5$	2

#### RECOMMENDED SOLDERING CONDITION

##### REFLOW SOLDERING



- Temperature is measured on the top of products body(Using thermocoupler for measurement).
- This profile is reference data we recommend. Please check in your actual process.

#### LONG TERM STORING CONDITION FOR TRANSFER MOLDED PRODUCTS WITH DRY PACKAGE

Each tape and reel is packaged by Anti-humid Al bag, in order to keep a good solder ability condition and soldering heat-resistant for the products. TLA-6T103-T/106-T/107-T/109-T/110-T/111-T/112-T/115-T/116-T/117-T/124-T are packaged in this way.

- Unless open the bag, the limit of storing is within 2 years.
- After opening the bag, the products should be soldered within 2 weeks.

The products should be stored in the atmosphere of +5 to +30°C and below 60% R.H.

# LAN Components

## 10/100BASE-TX

### Pulse Transformers

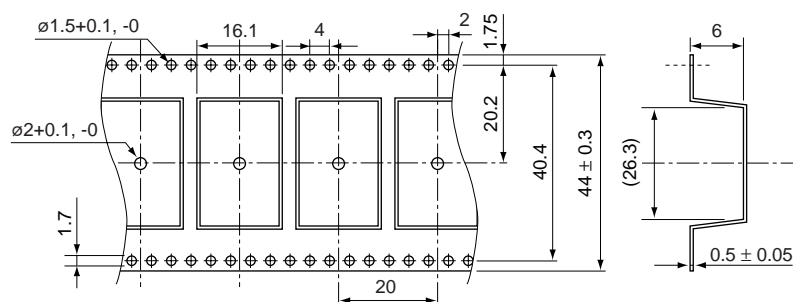
TLA-6T102/103/106/107/109/110/111/112/115/116/117/  
118/119/120/121/122/124/401/402/403/404/405

TLA-6T401-T/402-T/403-T/404-T/405-T

#### PACKAGING STYLES

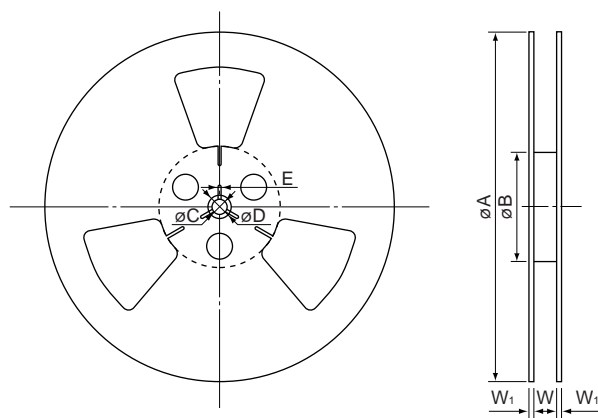
Quantity : 500pieces/reel

#### TAPE DIMENSIONS



Dimensions in mm

#### REEL DIMENSIONS

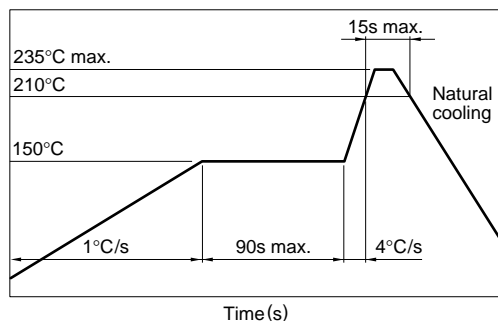


Dimensions in mm

A	B	C	D	E	W	W <sub>1</sub>
$\phi 330 \pm 1$	$\phi 100 \pm 1$	$\phi 13 \pm 0.2$	$\phi 21 \pm 0.8$	$2 \pm 0.5$	$45 + 1.5, -0.5$	$2.4 \pm 0.3$

#### RECOMMENDED SOLDERING CONDITION

##### REFLOW SOLDERING



- Temperature is measured on the top of products body(Using thermocoupler for measurement).
- This profile is reference data we recommend. Please check in your actual process.