Pulse transformers

TLA /ALT series

Issue date: April 2012
# PULSE TRANSFORMERS
## TLA/ALT SERIES

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### Pulse Transformers/Connector Type

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</thead>
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<tbody>
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<td>10BASE-T</td>
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</tr>
</tbody>
</table>

### Pulse Transformers/SMD Type

<table>
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<tr>
<th>SMD Type</th>
<th>Description</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ALT4532</td>
<td>.................................</td>
<td>32</td>
</tr>
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</table>

### 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.
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

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Turns ratio</th>
<th>Inductance (μH) (typ.) [100kHz]</th>
<th>Leakage inductance (μH) (max.) [100kHz]</th>
<th>Inter-winding stray capacitance (pF) (max.) [100kHz]</th>
<th>DC resistance (Ω) (max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLA-3T101LF(-T)</td>
<td>1:1</td>
<td>100</td>
<td>0.25</td>
<td>10</td>
<td>0.35, 0.35</td>
</tr>
<tr>
<td></td>
<td>Ta=25°C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- 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 : 1000 pieces/reel

TAPE DIMENSIONS

Dimensions in mm

REEL DIMENSIONS

Dimensions in mm

RECOMMENDED SOLDERING CONDITION
REFLOW SOLDERING

Time(s)

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

- All specifications are subject to change without notice.
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

<table>
<thead>
<tr>
<th>Pulse transformer</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port</td>
<td>4</td>
</tr>
<tr>
<td>Temperature ranges</td>
<td>Operating: 0 to +70°C, Storage: −40 to +85°C</td>
</tr>
<tr>
<td>Withstanding voltage</td>
<td>Erms: 2000V[60s]</td>
</tr>
</tbody>
</table>

SHAPE AND DIMENSIONS

- Part No.
- Lot No.
- Dimensions in mm

RECOMMENDED PCB BOARD PATTERN

- Dimensions in mm

CIRCUIT DIAGRAM

- Dimensions in mm

ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Turns ratio</th>
<th>Inductance (µH)min.[100kHz]</th>
<th>Leakage inductance (µH)max.[100kHz]</th>
<th>Inter-winding stray capacitance (pF)max.[100kHz]</th>
<th>DC resistance (Ω)max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLA-3T106LF(-T)</td>
<td>1:1</td>
<td>130</td>
<td>0.3</td>
<td>12</td>
<td>0.4, 0.4</td>
</tr>
<tr>
<td>TLA-3T107LF(-T)</td>
<td>1:1.41</td>
<td>130</td>
<td>0.3</td>
<td>12</td>
<td>0.4, 0.5</td>
</tr>
</tbody>
</table>

- 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: 1000 pieces/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-planarity.
- 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 1 year.

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

• All specifications are subject to change without notice.
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: Tape and reel, TLA-3T1 LF: Bulk).

GENERAL SPECIFICATIONS

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<th>Pulse transformer</th>
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<td>Common-mode choke</td>
<td>2</td>
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<td>Port</td>
<td>1</td>
</tr>
<tr>
<td>Temperature ranges</td>
<td>Operating 0 to +70°C</td>
</tr>
<tr>
<td></td>
<td>Storage –40 to +85°C</td>
</tr>
<tr>
<td>Withstanding voltage</td>
<td>Erms: 2000V[60s]</td>
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ELECTRICAL CHARACTERISTICS

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<tr>
<th>Part No.</th>
<th>Turns ratio</th>
<th>Inductance (µH)min.[100kHz]</th>
<th>Leakage inductance (µH)max.[100kHz]</th>
<th>Inter-winding stray capacitance (pF)max.[100kHz]</th>
<th>DC resistance (Ω)max.</th>
</tr>
</thead>
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<td>TLA-3T105LF(-T)</td>
<td>1CT:1CT</td>
<td>130</td>
<td>0.3</td>
<td>12</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>1CT:1CT</td>
<td>130</td>
<td>0.3</td>
<td>12</td>
<td>0.5</td>
</tr>
<tr>
<td>TLA-3T109LF(-T)</td>
<td>1CT:1CT</td>
<td>130</td>
<td>0.95</td>
<td>12</td>
<td>0.5</td>
</tr>
<tr>
<td>TLA-3T110LF(-T)</td>
<td>1CT:1CT</td>
<td>130</td>
<td>0.35</td>
<td>12</td>
<td>0.5</td>
</tr>
<tr>
<td>TLA-3T112LF(-T)</td>
<td>1CT:1CT</td>
<td>130</td>
<td>0.35</td>
<td>12</td>
<td>0.85</td>
</tr>
<tr>
<td></td>
<td>1CT:1.41CT</td>
<td>130</td>
<td>0.35</td>
<td>12</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>1CT:2.6CT</td>
<td>130</td>
<td>0.35</td>
<td>12</td>
<td>0.85</td>
</tr>
</tbody>
</table>

- 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: 1000 pieces/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-planarity.
• 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 tempera-
ture and high humidity. Recommend that it uses after the delivery
within 1 year.
Temperature range: +5 to +30°C
Humidity: 60(%)RH max.

• All specifications are subject to change without notice.
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).

GENERAL SPECIFICATIONS
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<tr>
<th>Feature</th>
<th>Value</th>
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<tr>
<td>Pulse transformer</td>
<td>2</td>
</tr>
<tr>
<td>Common-mode choke</td>
<td>2</td>
</tr>
<tr>
<td>Inductor</td>
<td>1</td>
</tr>
<tr>
<td>Port</td>
<td>1</td>
</tr>
<tr>
<td>Temperature ranges</td>
<td></td>
</tr>
<tr>
<td>Operating</td>
<td>0 to +70°C</td>
</tr>
<tr>
<td>Storage</td>
<td>−40 to +85°C</td>
</tr>
<tr>
<td>Withstanding voltage</td>
<td>Erms: 1500V [60s]</td>
</tr>
</tbody>
</table>

ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Turns ratio</th>
<th>Inductance (μH)min.</th>
<th>Insertion loss (dB)max.</th>
<th>Inter-winding stray capacitance (pF)max.[100kHz]</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLA-6T103LF(-T)</td>
<td>1CT:1CT</td>
<td>350</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>1CT:1CT</td>
<td>350</td>
<td>1</td>
<td>25</td>
</tr>
</tbody>
</table>

*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: 600 pieces/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 1 year.
Temperature range: +5 to +30°C
Humidity: 60(%)RH max.

• All specifications are subject to change without notice.
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 tapeing and bulk(TLA-6T1□□LF-T:
  Tape and reel, TLA-6T1 □□LF: Bulk).

GENERAL SPECIFICATIONS
<table>
<thead>
<tr>
<th>Part No.</th>
<th>Pulse transformer</th>
<th>Common-mode choke</th>
<th>Port</th>
<th>Temperature ranges</th>
<th>Withstanding voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLA-6T118LF(-T)</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>Operating 0 to +70°C</td>
<td>Erms:1500V[60s]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Storage –40 to +85°C</td>
<td></td>
</tr>
</tbody>
</table>

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: 1000 pieces/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-planarity.
- 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 1 year.
Temperature range: +5 to +30°C
Humidity: 60(%)RH max.

All specifications are subject to change without notice.
**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).

**GENERAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulse transformer</td>
<td>2</td>
</tr>
<tr>
<td>Common-mode choke</td>
<td>2</td>
</tr>
<tr>
<td>Port</td>
<td>1</td>
</tr>
<tr>
<td>Temperature ranges</td>
<td></td>
</tr>
<tr>
<td>Operating</td>
<td>0 to +70°C</td>
</tr>
<tr>
<td>Storage</td>
<td>–40 to +85°C</td>
</tr>
<tr>
<td>Withstanding voltage</td>
<td>Erms: 1500V [60s]</td>
</tr>
</tbody>
</table>

**SHAPES AND DIMENSIONS**

![Dimensions Diagram]

**RECOMMENDED PC BOARD PATTERN**

![Board Pattern Diagram]

**CIRCUIT DIAGRAM**

![Circuit Diagram]

**ELECTRICAL CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Turns ratio</th>
<th>Inductance (μH) min. [DC bias 8mA, 100kHz]</th>
<th>Insertion loss (dB) max. [0.1 to 100MHz]</th>
<th>Inter-winding stray capacitance (pF) max. [100kHz]</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLA-6T127LF(-T)</td>
<td>1CT:1CT</td>
<td>350</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>TLA-6T127LF</td>
<td>1CT:1CT</td>
<td>350</td>
<td>1</td>
<td>25</td>
</tr>
</tbody>
</table>

- 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.

006-02 / 20120414 / edian_tla
PACKAGING STYLES
Quantity : 1000 pieces/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 tempera-
ture and high humidity. Recommend that it uses after the delivery
within 1 year.
Temperature range: +5 to +30°C
Humidity: 60(%)RH max.

• All specifications are subject to change without notice.
TLA-6T133WLF(-T) ISO8802.3(IEEE802.3) 10/100BASE-TX

FEATURES

- Can be used in a 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

RECOMMENDED PC BOARD PATTERN

ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Turns ratio</th>
<th>Inductance (\mu H)min. ([\text{DC bias }8\text{mA}, 100\text{kHz}])</th>
<th>Insertion loss ([\text{dB}])max. ([0.1 \text{ to } 100\text{MHz}])</th>
<th>Inter-winding stray capacitance (\text{pF})max. ([100\text{kHz}])</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLA-6T133WLF(-T)</td>
<td>1CT:1CT</td>
<td>350</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>1CT:1CT</td>
<td>350</td>
<td>1</td>
<td>25</td>
</tr>
</tbody>
</table>

- \(Ta=25°C\)

- 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

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.

• All specifications are subject to change without notice.
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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulse transformer</td>
<td>2</td>
</tr>
<tr>
<td>Common-mode choke</td>
<td>2</td>
</tr>
<tr>
<td>Port</td>
<td>1</td>
</tr>
<tr>
<td>Temperature ranges</td>
<td>Operating: 0 to +70°C</td>
</tr>
<tr>
<td></td>
<td>Storage: −40 to +85°C</td>
</tr>
<tr>
<td>Withstanding voltage</td>
<td>Erms: 1500V [60s]</td>
</tr>
</tbody>
</table>

SHAPES AND DIMENSIONS

![Dimensions Diagram]

Dimensions in mm:
- Width: 10.07
- Height: 8.89
- Thickness: 1.27, 0.9

CIRCUIT DIAGRAM

![Circuit Diagram]

ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Turns ratio</th>
<th>Inductance [μH] min. [DC bias 8mA, 100kHz]</th>
<th>Insertion loss [dB] max. [0.1 to 125MHz]</th>
<th>Inter-winding stray capacitance [pF] max. [100kHz]</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLA-6T214ALF(-T)</td>
<td>1CT:1CT</td>
<td>350</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>1CT:1CT</td>
<td>350</td>
<td>1</td>
<td>25</td>
</tr>
</tbody>
</table>

- 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 : 1500 pieces/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

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

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

GENERAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>SPECIFICATION</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulse transformer</td>
<td>2</td>
</tr>
<tr>
<td>Common-mode choke</td>
<td>2</td>
</tr>
<tr>
<td>Port</td>
<td>1</td>
</tr>
<tr>
<td>Temperature ranges</td>
<td>Operating: 0 to +70°C</td>
</tr>
<tr>
<td></td>
<td>Storage: –40 to +85°C</td>
</tr>
<tr>
<td>Withstanding voltage</td>
<td>Erms:1500V[60s]</td>
</tr>
</tbody>
</table>

SHAPES AND DIMENSIONS

CIRCUIT DIAGRAM

RECOMMENDED PC BOARD PATTERN

ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>TURNS RATIO</th>
<th>INDUCTION (μH)</th>
<th>INSERTION LOSS (dB)</th>
<th>INTER-WINDING STRAY CAPACITANCE (pF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLA-6T213LF(-T)</td>
<td>1CT:1CT</td>
<td>350</td>
<td>1</td>
<td>25</td>
</tr>
</tbody>
</table>

• 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

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-planarity.
• 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

• All specifications are subject to change without notice.
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).

GENERAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulse transformer</td>
<td>4</td>
</tr>
<tr>
<td>Common-mode choke</td>
<td>4</td>
</tr>
<tr>
<td>Port</td>
<td>[1000BASE-T]</td>
</tr>
<tr>
<td>Temperature ranges</td>
<td>Operating: 0 to +70°C</td>
</tr>
<tr>
<td></td>
<td>Storage: –40 to +85°C</td>
</tr>
<tr>
<td>Withstanding voltage</td>
<td>Erms: 1500V [60s]</td>
</tr>
</tbody>
</table>

SHAPES AND DIMENSIONS

![Shapes and Dimensions Diagram]

CIRCUIT DIAGRAM

![Circuit Diagram]

RECOMMENDED PC BOARD PATTERN

![Recommended PC Board Pattern]

ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Turns ratio</th>
<th>Inductance (μH) min. [DC bias 8mA, 100kHz]</th>
<th>Insertion loss (dB) max. [0.1 to 100MHz]</th>
<th>Inter-winding stray capacitance (pF) max. [100kHz]</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLA-7T201LF(-T)</td>
<td>1CT:1CT</td>
<td>350</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Ta=25°C</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- 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

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
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

• All specifications are subject to change without notice.
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

<table>
<thead>
<tr>
<th>Component</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulse transformer</td>
<td>8</td>
</tr>
<tr>
<td>Common-mode choke</td>
<td>8</td>
</tr>
<tr>
<td>Port</td>
<td>4</td>
</tr>
<tr>
<td>Temperature ranges</td>
<td>Operating: 0 to +70°C</td>
</tr>
<tr>
<td></td>
<td>Storage: –40 to +85°C</td>
</tr>
<tr>
<td>Withstanding voltage</td>
<td>Erms:1500V[60s]</td>
</tr>
</tbody>
</table>

ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Turns ratio</th>
<th>Inductance (μH)</th>
<th>Insertion loss (dB)</th>
<th>Inter-winding stray capacitance (pF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLA-6T406(-T)</td>
<td>1CT:1CT</td>
<td>350</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td>TLA-6T406(-T)</td>
<td>1CT:1CY</td>
<td>350</td>
<td>1</td>
<td>40</td>
</tr>
</tbody>
</table>

- 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

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
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

• All specifications are subject to change without notice.
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 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-7T101LF-T: Tape and reel, TLA-7T101LF: Bulk).

GENERAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulse transformer</td>
<td>4</td>
</tr>
<tr>
<td>Common-mode choke</td>
<td>4</td>
</tr>
<tr>
<td>Port</td>
<td>1(1000BASE-T)</td>
</tr>
<tr>
<td>Temperature ranges</td>
<td>Operating: –40 to +85°C</td>
</tr>
<tr>
<td></td>
<td>Storage: –40 to +85°C</td>
</tr>
<tr>
<td>Withstanding voltage</td>
<td>Erms: 1500V[60s]</td>
</tr>
</tbody>
</table>

SHAPES AND DIMENSIONS

Dimensions in mm

RECOMMENDED PC BOARD PATTERN

Dimensions in mm

CIRCUIT DIAGRAM

ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Turns ratio</th>
<th>Inductance (μH)min. [DC bias 8mA, 100kHz]</th>
<th>Insertion loss (dB)max. [0.1 to 100MHz]</th>
<th>Inter-winding stray capacitance (pF)max.[100kHz]</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLA-7T101LF(-T)</td>
<td>1CT:1CT</td>
<td>350</td>
<td>1</td>
<td>25</td>
</tr>
</tbody>
</table>

- 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: 1000 pieces/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-planarity.
- 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.

• All specifications are subject to change without notice.
Pulse Transformers/Connector Type

TLA-6T776F ISO8802.3(IEEE802.3) 10/100BASE-TX

FEATURES
- Product conforming to RoHS directive.
- Pulse transformer, common mode choke, resistor and high withstanding voltage capacitor are integrated into RJ-45 modular jack.
- Excellent common mode noise suppression.
- Inductance is 200μH or greater (f=100kHz, DC bias=8mA).
- The product features high quality, containing a self-winding surface-mount pulse transformer and common mode choke.

GENERAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulse transformer</td>
<td>2</td>
</tr>
<tr>
<td>Common-mode choke</td>
<td>2</td>
</tr>
<tr>
<td>Port</td>
<td>1</td>
</tr>
<tr>
<td>Temperature ranges</td>
<td></td>
</tr>
<tr>
<td>Operating</td>
<td>–40 to +85°C</td>
</tr>
<tr>
<td>Storage</td>
<td>–40 to +85°C</td>
</tr>
</tbody>
</table>

SHAPE AND DIMENSIONS

Dimensions in mm

CIRCUIT DIAGRAM

RECOMMENDED PC BOARD PATTERN

Dimensions in mm

ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Turns ratio</th>
<th>Inductance (μH)min. [DC bias 8mA, 100kHz]</th>
<th>Insertion loss (dB)max. [0.1 to 100MHz]</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLA-6T776F</td>
<td>1CT:1</td>
<td>200</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>1CT:1</td>
<td>200</td>
<td>1.5</td>
</tr>
</tbody>
</table>

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
Tray : 360pieces/box

RECOMMENDED SOLDERING CONDITION
FLOW SOLDERING

Preheating: 90 to 130°C for 30 to 45 seconds.
Soldering: 255°C max. 5±1 seconds
• Perform flow soldering from the underside of the board.
• The surface of plastic protrusions inserted into the board may
  melt, but this causes no problems with regard to electrical
  properties or mounting.
• 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 tempera-
ture and high humidity. Recommend that it uses after the delivery
within 1year.
Temperature range: +5 to +40°C
Humidity: 10 to 75%RH max.
TLA-6T785  ISO8802.3(IEEE802.3)  10/100BASE-TX

FEATURES
- Product conforming to RoHS directive.
- Pulse transformer, common mode choke, resistor and high withstanding voltage capacitor are integrated into RJ-45 modular jack.
- Excellent common mode noise suppression.
- Inductance is 200μH or greater (f=100kHz, DC bias=8mA).
- The product features high quality, containing a self-winding surface-mount pulse transformer and common mode choke.

GENERAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Part</th>
<th>Pulse transformer</th>
<th>Common-mode choke</th>
<th>Port</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLA-6T785</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Temperature ranges</th>
<th>Operating</th>
<th>Storage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>–40 to +85°C</td>
<td>–40 to +85°C</td>
</tr>
</tbody>
</table>

SHAPES AND DIMENSIONS

Dimensions in mm

RECOMMENDED PC BOARD PATTERN

Dimensions in mm

ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Turns ratio</th>
<th>Inductance (μH) min. [DC bias 8mA, 100kHz]</th>
<th>Insertion loss (dB) max. [0.1 to 100MHz]</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLA-6T785</td>
<td>1CT:1</td>
<td>200</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>1CT:1</td>
<td>200</td>
<td>1.5</td>
</tr>
</tbody>
</table>

- 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
Tray: 500 pieces/box

RECOMMENDED SOLDERING CONDITION
FLOW SOLDERING

Preheating: 90°C to 130°C for 30 to 45 seconds.
Soldering: 255°C max. 5±1 seconds
• Perform flow soldering from the underside of the board.
• The surface of plastic protrusions inserted into the board may melt, but this causes no problems with regard to electrical properties or mounting.
• 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 1 year.
Temperature range: +5 to +40°C
Humidity: 10 to 75%RH max.

• All specifications are subject to change without notice.
LC Modules

TLA-3M103LF(-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 (2.54mm=100mil pin pitch).
• Pulse transformer, common-mode choke and low pass filter are integrated into 16-pin SMD package.
• Using the high-quality and wide-band ferrite cores for LAN.
• Packaging specification is taping and bulk(TLA-3M103LF-T: Tape and reel, TLA-3M103LF: Bulk).

GENERAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low pass filter</td>
<td>2</td>
</tr>
<tr>
<td>Pulse transformer</td>
<td>2</td>
</tr>
<tr>
<td>Common-mode choke</td>
<td>2</td>
</tr>
<tr>
<td>Port</td>
<td>1</td>
</tr>
<tr>
<td>Temperature ranges</td>
<td></td>
</tr>
<tr>
<td>Operating</td>
<td>0 to +70°C</td>
</tr>
<tr>
<td>Storage</td>
<td>−40 to +85°C</td>
</tr>
<tr>
<td>Withstanding voltage</td>
<td>Erms:1500V[60s]</td>
</tr>
</tbody>
</table>

SHAPE AND DIMENSIONS

Dimensions in mm

RECOMMENDED PC BOARD PATTERN

Dimensions in mm

ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Insertion loss (dB)max.[5 to 10MHz]</th>
<th>Attenuation (dB)min.[30 to 100MHz]</th>
<th>Impedance (Ω)typ.[5 to 10MHz]</th>
<th>C.M.R.R. (dB)min.[1 to 100MHz]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 ①-③ ⑥</td>
<td>②-④ ⑤</td>
<td>①-⑤ ⑥</td>
<td>②-④ ⑤ ①-③ ⑥</td>
</tr>
<tr>
<td>TLA-3M103LF(-T)</td>
<td>1 25</td>
<td>100, 100</td>
<td>25</td>
<td>100, 100</td>
</tr>
</tbody>
</table>

• 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.

- Ta=25°C
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.

• All specifications are subject to change without notice.
Pulse Transformers/SMD Type

**ALT4532**

**FEATURES**
- The ALT4532 Series is a wound chip type pulse transformer developed for LANs.
- Compatible with 10BASE-T, 100BASE-TX, and 1000BASE-T.
- High-quality product with automatic winding.
- Product conforming to RoHS directive.

**APPLICATIONS**
LAN interface portion of various devices such as network devices, communication devices, and digital home appliances

**PRODUCT IDENTIFICATION**

| (1) Series name | ALT 4532 |
| (2) Dimensions L-W | 201-T |
| (3) Inductance [at 100kHz/DC bias=8mA] | 201 : 200μH min. |
| (4) Packaging style | T: ø330mm reel taping |
| (5) TDK internal code | T001 |

**SPECIFICATIONS**

| Temperature range | Operating: -40 to +85°C | Storage (After mount): -40 to +85°C |

**PACKAGING STYLE AND QUANTITIES**

| Packaging style | Reel | Quantity |
| Taping | ø180mm | 2000 pieces/reel |

**RECOMMENDED PC BOARD PATTERN**

**MEASURING CIRCUIT**

**ELECTRICAL CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Turns ratio</th>
<th>Inductance (μH)min. [DC bias 8mA, 100kHz]</th>
<th>Insertion loss (dB)max. [0.1 to 100MHz]</th>
<th>Inter-winding stray capacitance (pF)max. [100kHz]</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALT4532-171-T001</td>
<td>1CT : 1CT</td>
<td>170</td>
<td>2.5</td>
<td>35</td>
</tr>
<tr>
<td>ALT4532-201-T001</td>
<td>1CT : 1CT</td>
<td>200</td>
<td>1.5</td>
<td>35</td>
</tr>
</tbody>
</table>

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[006-02 / 20120414 / edian_tla]
TYPICAL ELECTRICAL CHARACTERISTICS
INSERTION LOSS vs. FREQUENCY CHARACTERISTICS

ALT4532-171-T001

ALT4532-201-T001

TYPICAL APPLICATIONS (100BASE-TX)

Note) Peripheral circuits differ depending on the IC used; check the circuits with the application note of the IC, etc.