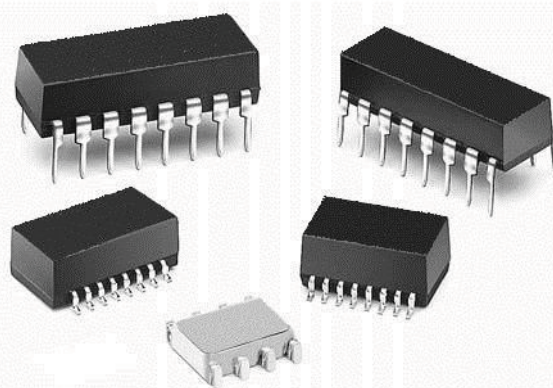


10Base-T Isolation Transformers

Link-PP Int'l Technology

- ✧ For Adaptor Cards, Mous, Hubs, and Motherboard applications
- ✧ Designed to meet or exceed IEEE802.3. 10Base-T specifications
- ✧ Available With Common Mode Chokes for EMI Suppression
- ✧ SMT, THT, DIP etc Package
- ✧ For RoHS part add suffix NL
- ✧ RoHS NL peak solder rating 235°C



Electrical Specifications @25°C---Operating Temperature 0°C to 70°C

| Part Number | Turns Ratio (±5%) | | Primary Pins | Common Mode Choke | Sine Wave Inductance OCL ¹ (uH MIN) | Interwinding Capacitance C _{ww} ¹ (pF MAX) | Leakage Inductance LL ¹ (μ H MAX) | DCR (Ω MAX) | Hipot (Vrms) | Schem . | Mech. |
|----------------------|-------------------|---------|--------------------|-------------------|--|--|--|-------------|--------------|---------|-------|
| | Transmit | Receive | | | | | | | | | |
| Surface Mount | | | | | | | | | | | |
| LP114SM | 1CT:1CT | 1CT:1CT | 1-3/6-8 | | 200 | 12 | 0.3 | 0.3 | 2000 | D | SMT5 |
| LP128SM | 1CT:1.414CT | 1CT:1CT | 6-8/1-3 | | 200 | 15 | 0.5 | 0.4 | 2000 | D | SMT5 |
| LP356SM | 1CT:1.414CT | 1CT:1CT | 6-8/1-3 | X | 200 | 12 | 0.5 | 0.6 | 2000 | G | SMT5 |
| LP435SM | 2CT:1CT | 1CT:1CT | 1-3/6-8 | | 100 | 10 | 0.4 | 0.5 | 2000 | D | SMT5 |
| LP467SM | 1CT:2CT | 1CT:1CT | 6-8/1-3 | X | 140 | 12 | 0.2 | 0.6 | 2000 | G | SMT5 |
| LP2023 | 1CT:2.5CT | 1CT:1CT | 6-8/1-3 | X | 200 | 15 | 0.5 | 0.4 | 2000 | J | SMT4 |
| LP4001 | 1CT:2CT | 1CT:1CT | 6-8/1-3 | X | 112 | 8 | 0.3 | 0.8 | 3000 | E | SMT4 |
| LP4005 | 1CT:2.5CT | 1CT:1CT | 6-8/1-3 | X | 200 | 10 | 0.4 | 0.5 | 1500 | J | SMT4 |
| LP5017 | 1CT:1CT | 1CT:1CT | 1-3/6-8 | X | 200 | 10 | 0.25 | 1.0 | 1500 | F | SMT4 |
| LP2024 ² | 1CT:2.5CT | 1CT:1CT | 6-8/1-3 | X | 350 | 30 | 0.8 | 0.6 | 2000 | J | SMT4 |
| LP85454 | 1:1.414 | 1:1 | 3-4/1-2 | | 140 | 12 | 0.2 | 0.4 | 2000 | A | SMT2 |
| LP85726 | 1CT:1CT | 1CT:1CT | 1-3/6-8 | | 200 | 10 | 0.2 | 0.3 | 2000 | D | SMT4 |
| LP85745 | 1CT:1.414CT | 1CT:1CT | 6-8/1-3 | | 140 | 12 | 0.2 | 0.3 | 2000 | D | SMT4 |
| LP88023 | 1CT:2CT | 1CT:1CT | 1-3/6-8 | X | 200 | 12 | 0.3 | 1.0 | 1500 | F | SMT4 |
| LP88041 | 1CT:2CT | 1CT:1CT | 6-8/1-3 | | 112 | 8 | 0.3 | 0.5 | 1500 | D | SMT4 |
| LP88042 | 2.828CT:1 | 1:1 | 2-4/7-9 | | 200 | 14 | 1 | 0.5 | 1500 | I | SMT1 |
| LP88048 | 1CT:1.414CT | 1CT:1CT | 6-8/1-3 | X | 110 | 15 | 0.4 | 1.0 | 1500 | E | SMT4 |
| LP88052 | 2CT:1CT | 1CT:1CT | 1-3/6-8 | X | 140 | 12 | 0.3 | 1.0 | 1500 | F | SMT4 |
| LP88810 | --- | 1:1(4X) | 1-2/3-4 | | 140 | 12 | 0.2 | 0.4 | 2000 | C | SMT4 |
| LP88820 | 1:1.414(4X) | --- | 1-2/3-4 5-6/7-8 | | 140 | 12 | 0.2 | 0.4 | 2000 | C | SMT4 |
| Through Hole | | | | | | | | | | | |
| LP128 | 1CT:2CT | 1CT:1CT | 6-8/1-3 | | 140 | 15 | 0.5 | 0.4 | 2000 | D | TH3 |
| LP435 | 2CT:1CT | 1CT:1CT | 1-3/6-8 | | 80 | 10 | 0.4 | 0.5 | 2000 | D | TH3 |
| LP85263 | 1CT:1CT | 1CT:1CT | 1-3/6-8 | | 200 | 15 | 0.25 | 0.3 | 2000 | D | TH4 |

NOTES: 1. OCL, C_{ww} and LL are measured at 20 mVrms, 100 kHz.

2. Extended temperature parts -40°C to 85°C, electrical specifications @ 25°C.

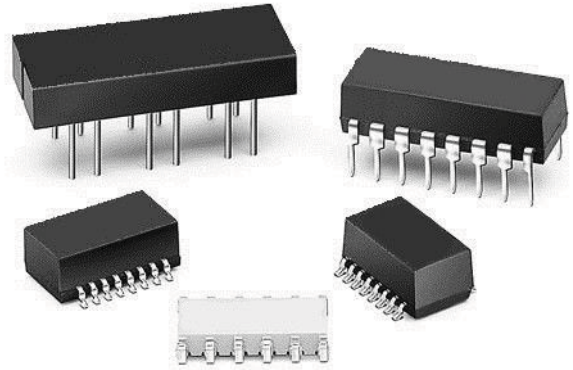
Electrical Specifications @25°C---Operating Temperature 0°C to 70°C

| Part Number | Insertion Loss 1 to 10 MHz (dB MAX) | Attenuation (dB MIN) | | | | Return Loss 1 to 10 MHz 100 Ω ± 15 Ω (dB MIN) | Crosstalk 1 to 30 MHz (dB MIN) | Common Mode Rejection (dB MIN) | | Schem. | Mech. |
|-------------|-------------------------------------|----------------------|-----|-----------|-----|---|--------------------------------|--------------------------------|--------|--------|-------|
| | | 30-50MHz | | 50-100MHz | | | | 50MHz | 100MHz | | |
| | | TX | RX | TX | RX | | | | | | |
| LP85433 | -1.0 | -30 | -15 | -35 | -20 | -15 | -30 | -35 | -30 | K | TH5 |

Isolation Transformers For Ethernet

Link-PP Int'l Technology

- ✘ For Ethernet AUI Transformers
- ✘ Low leakage inductance and coupling capacitance for faster rise times
- ✘ SMT, DIP package
- ✘ For RoHS Parts add Suffix NL
- ✘ RoHS NL peak solder rating 235°C



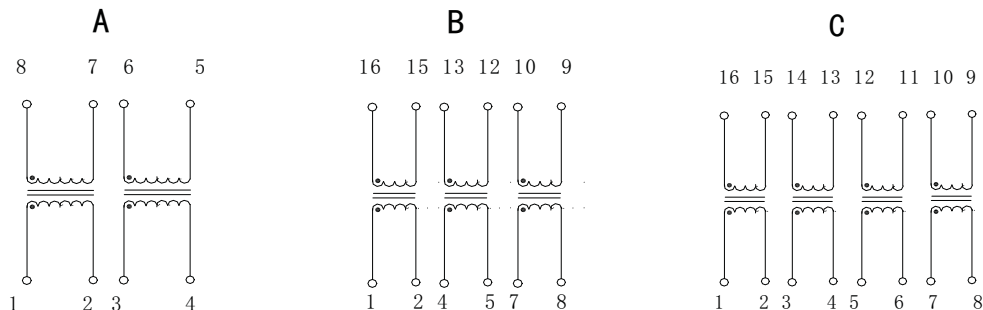
Electrical Specifications @25 °C---- Operating Temperature 0°C to 70°C

| Part Number | Turns Ratio (±2%) | Primary Pins | Primary Sine Wave OCL (μH ±20%) | Primary ET-Constant (V-μs MIN) | Rise Time (ns MAX) | Interwinding Capacitance C _{ww} (pF MAX) | Leakage Inductance L _L (uH MAX) | DCR (Ω MAX) | Schem. | Mech. | Hipot (Vrms) |
|----------------------|-------------------|--------------|---------------------------------|--------------------------------|--------------------|---|--|-------------|--------|-------|--------------|
| SURFACE MOUNT | | | | | | | | | | | |
| LP90SM | 1:1 | 1-2/4-5/7-8 | 75 | 2.4 | 3.0 | 10 | 0.20 | 0.20 | B | SMT5 | 2000 |
| LP91SM | 1:1 | 1-2/4-5/7-8 | 100 | 2.4 | 3.0 | 10 | 0.20 | 0.30 | B | SMT5 | 2000 |
| LP108SM | 1:1 | 1-2/4-5/7-8 | 350 | 2.5 | 3.5 | 16 | 0.30 | 0.35 | B | SMT5 | 2000 |
| LP6002 | 1:1 | 1-2/4-5/7-8 | 40(MIN) | 2.1 | 3.0 | 8 | 0.20 | 0.25 | B | SMT4 | 2000 |
| LP85723 | 1:1 | 1-2/4-5/7-8 | 75 | 1.8 | 3.0 | 8 | 0.20 | 0.30 | B | SMT4 | 2000 |
| LP85727 | 1:1 | 1-2/4-5/7-8 | 150 | 1.2 | 3.0 | 12 | 0.20 | 0.30 | B | SMT4 | 2000 |
| LP85728 | 1:1 | 1-2/4-5/7-8 | 100 | 1.8 | 3.0 | 9 | 0.20 | 0.30 | B | SMT4 | 2000 |
| LP88801 | 1:1 | 1-2/3-4/5-6 | 75 | 1.8 | 3.0 | 12 | 0.20 | 0.30 | H | SMT3 | 2000 |
| THROUGH HOLE | | | | | | | | | | | |
| LP84102 | 1:1 | 1-2/4-5/7-8 | 75 | 2.1 | 3.0 | 10 | 0.20 | 0.20 | B | TH4 | 500 |
| LP84103 | 1:1 | 1-2/4-5/7-8 | 100 | 2.1 | 3.0 | 10 | 0.20 | 0.30 | B | TH4 | 500 |
| LP84104 | 1:1 | 1-2/4-5/7-8 | 150 | 2.1 | 3.5 | 12 | 0.20 | 0.30 | B | TH4 | 500 |
| LP84107 | 1:1 | 1-2/4-5/7-8 | 75 | 2.4 | 3.5 | 10 | 0.25 | 0.30 | B | TH2 | 2000 |
| LP84108 | 1:1 | 1-2/4-5/7-8 | 100 | 2.1 | 3.5 | 10 | 0.25 | 0.40 | B | TH2 | 2000 |
| LP84109 | 1:1 | 1-2/4-5/7-8 | 150 | 3.0 | 3.0 | 15 | 0.20 | 0.45 | B | TH2 | 2000 |
| LP84502 | 1:1 | 1-2/4-5/7-8 | 75 | 2.1 | 3.0 | 10 | 0.20 | 0.20 | B | TH4 | 2000 |
| LP84503 | 1:1 | 1-2/4-5/7-8 | 100 | 2.1 | 3.0 | 10 | 0.20 | 0.30 | B | TH4 | 2000 |

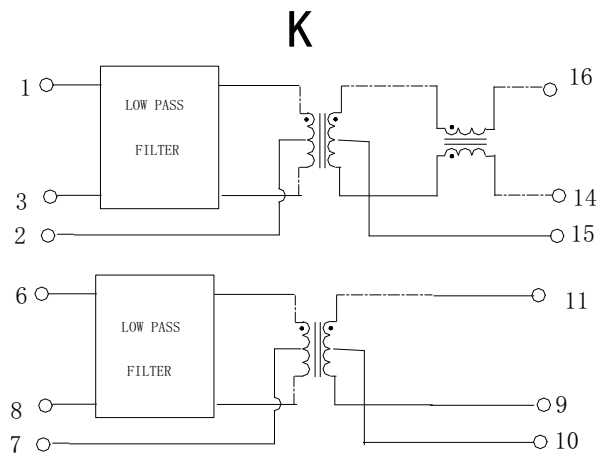
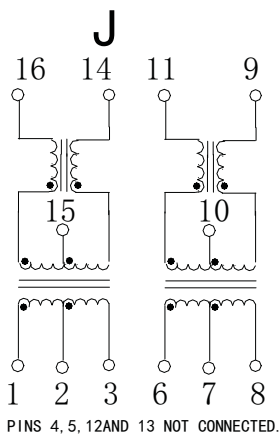
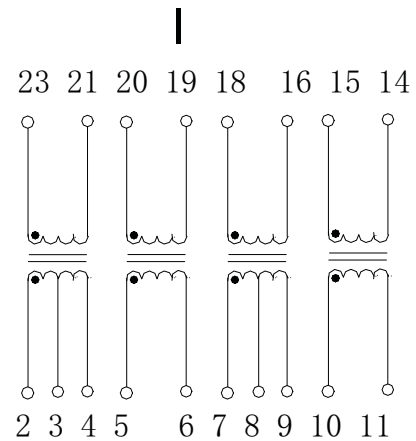
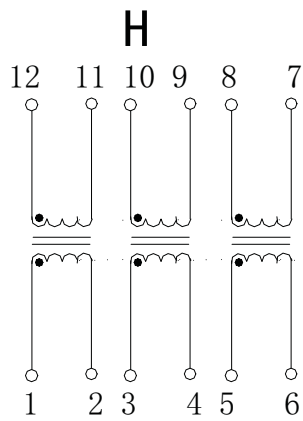
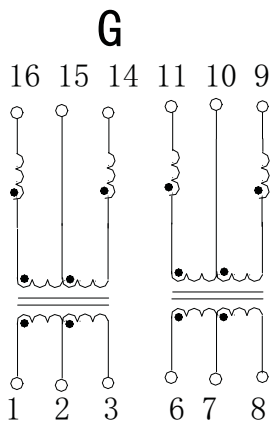
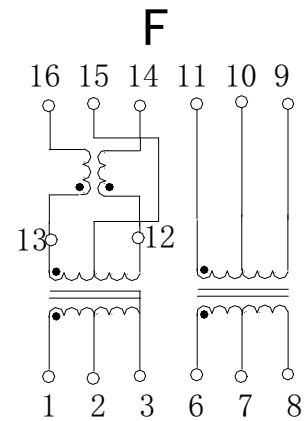
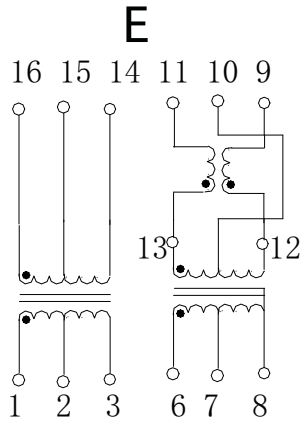
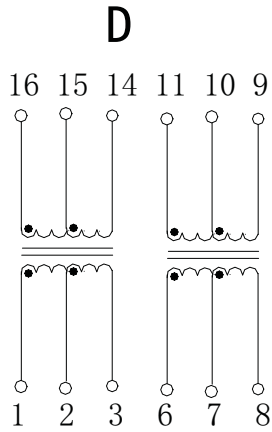
NOTES:

1. OCL, C_{ww} and L_L are measured at 20 mVrms, 100 kHz.
2. Rise time is measured in 75 Ω systems.

Schematics

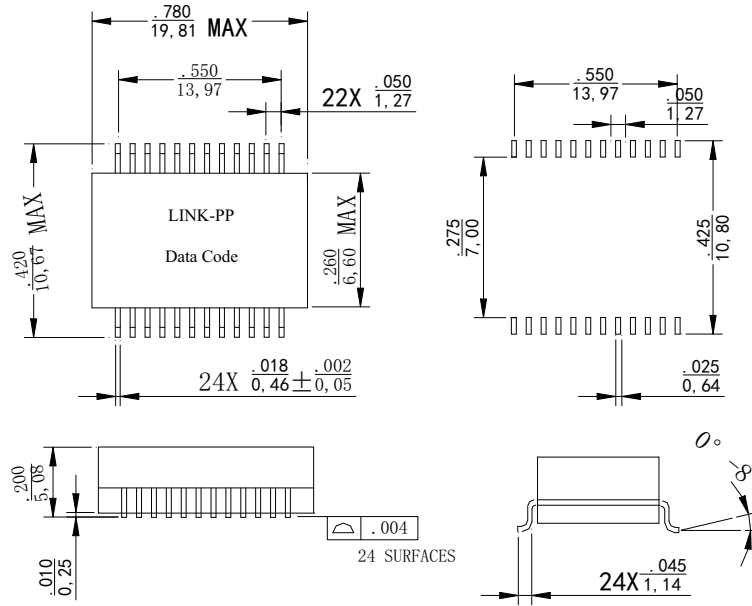


Schematics (continued)



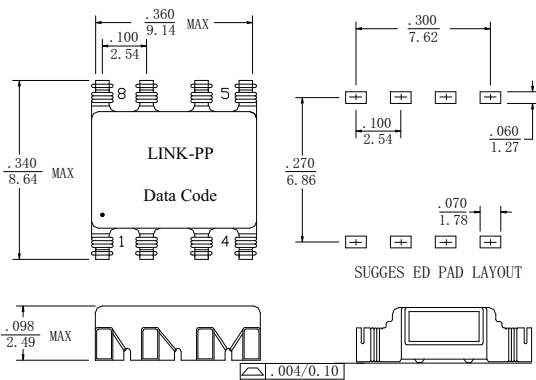
Surface Mount Mechanicals

SMT1



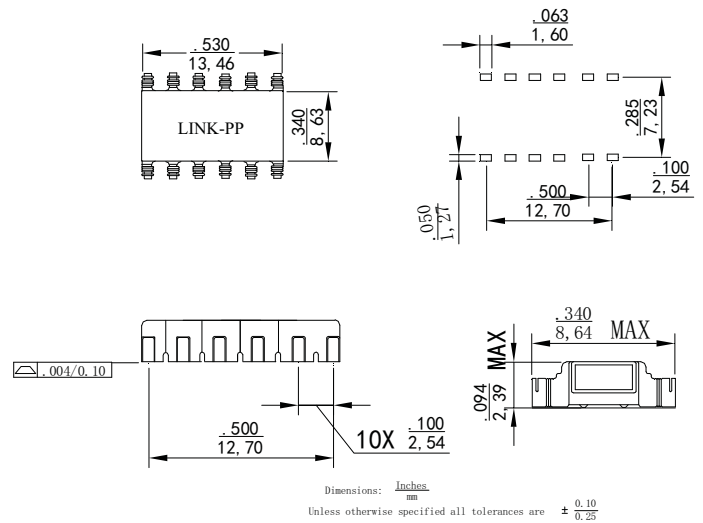
Dimensions: $\frac{\text{Inches}}{\text{mm}}$
 Unless otherwise specified,
 all tolerances are $\pm \frac{.010}{0.25}$

SMT2



Dimensions: $\frac{\text{Inches}}{\text{mm}}$
 Unless otherwise specified,
 all tolerances are $\pm \frac{.010}{0.25}$

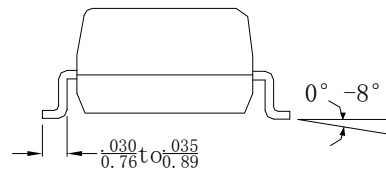
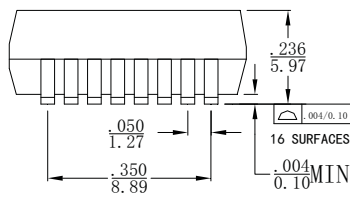
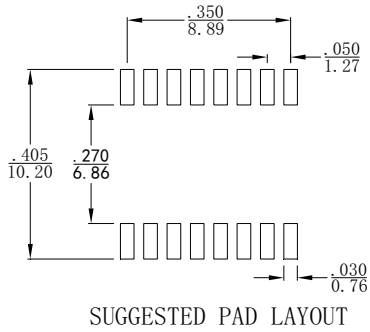
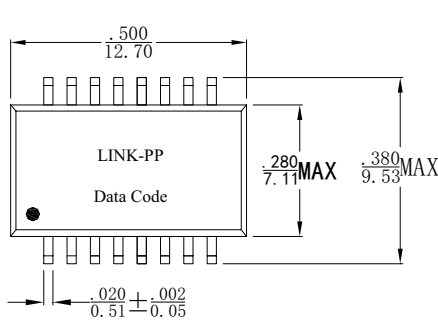
SMT3



Dimensions: $\frac{\text{Inches}}{\text{mm}}$
 Unless otherwise specified all tolerances are $\pm \frac{0.10}{0.25}$

Surface Mount Mechanicals (continued)

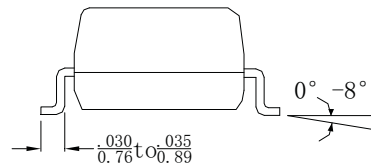
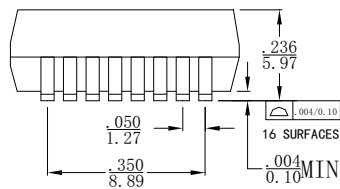
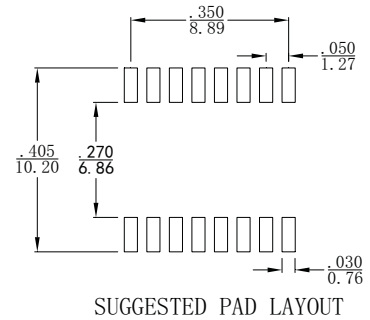
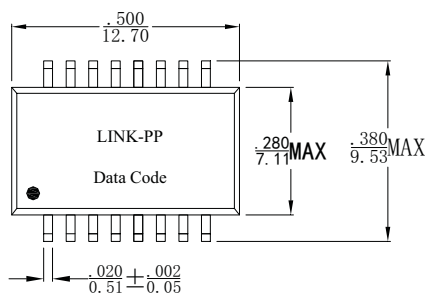
SMT4



Dimensions: $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified,
all tolerances are $\pm \frac{.010}{.25}$

SMT5

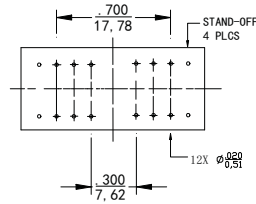
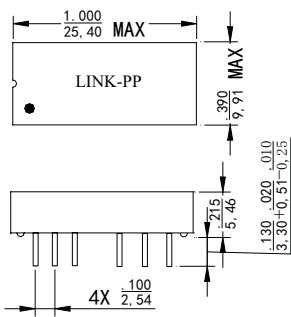


Dimensions: $\frac{\text{Inches}}{\text{mm}}$

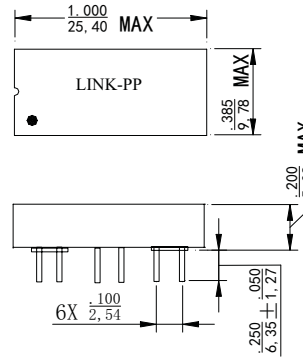
Unless otherwise specified,
all tolerances are $\pm \frac{.010}{.25}$

Through Hole Mechanicals

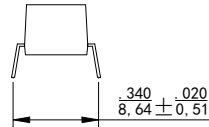
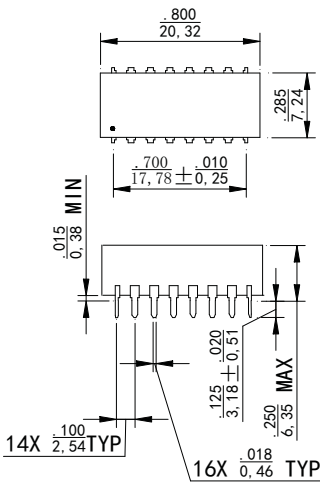
TH1



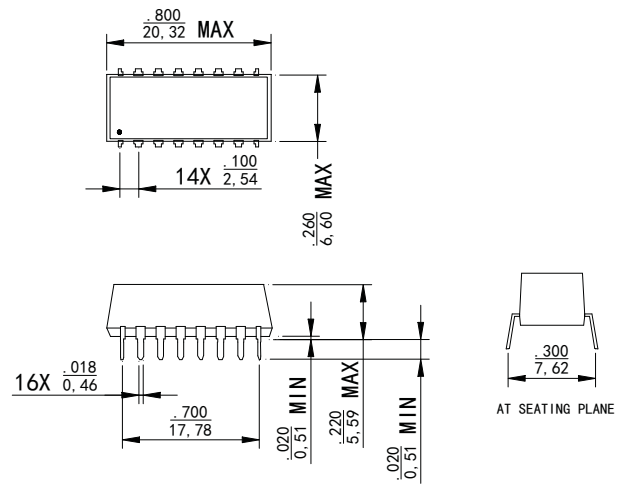
TH2



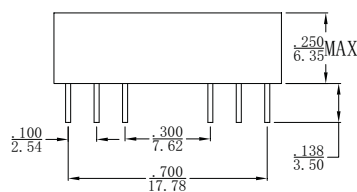
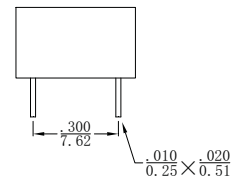
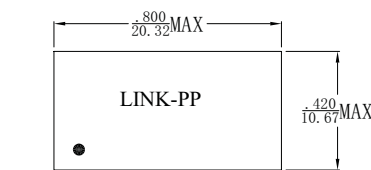
TH3



TH4



TH 5



Dimensions: $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified, all tolerances are $\pm 0.25^{\text{010}}$