



# Networking Communication Components

## RT Series

### **LAN Transformer**

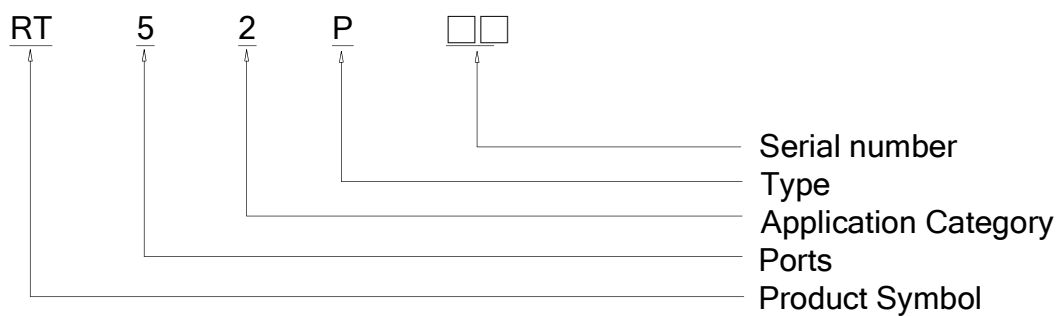
Part number: RT52P01

Part name :Giga Transformer Five Port

### **Feature**

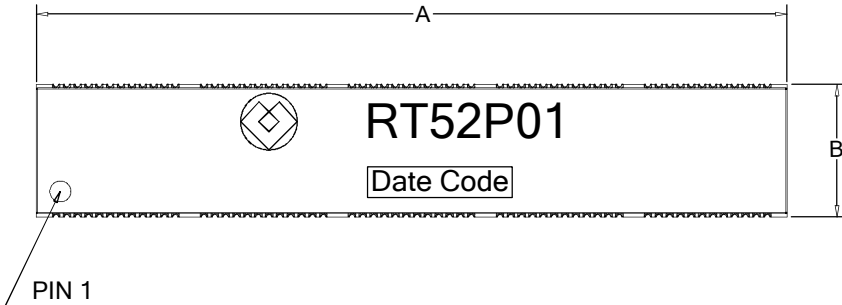
- Compliant and peak reflow temperature rating 245°C .
- Meets IEEE802.3 specification.
- Excellent common mode noise suppression.
- Packaging specification is reel.  
(RT52P□□: Reel)

### **Part number code**

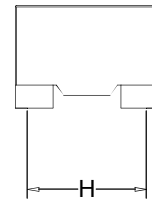
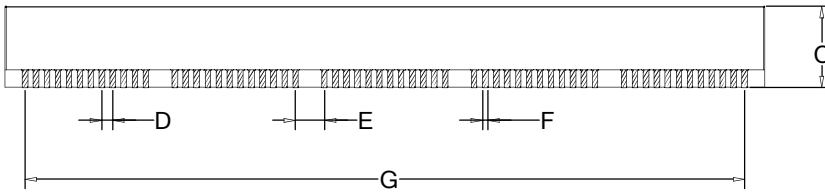
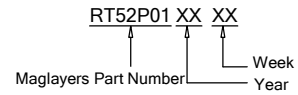


REV.	Description	Date	Drawn	Designed	Approved
A	Specification issued	07.26.2013	Jamie.Chuang	Jamie.Chuang	James.Cheng

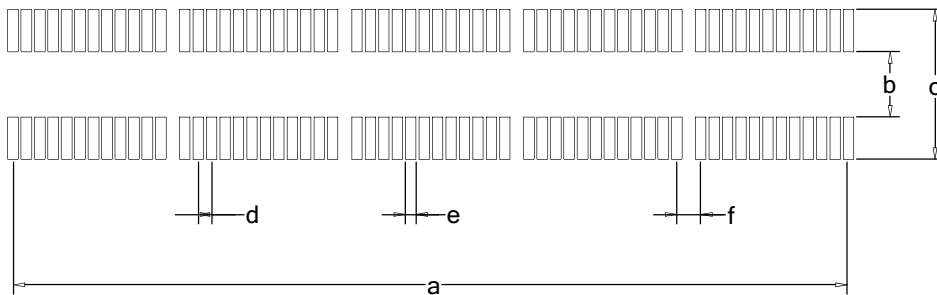
# Mechanical Dimension and Marking



UNIT	mm	inch
A	71.60 +0.254/-0.254	2.819 +0.010/-0.010
B	10.00 +0.254/-0.254	0.394 +0.010/-0.010
C	7.25 +0.254/-0.254	0.285 +0.010/-0.010
D	1.02 +0.127/-0.127	0.040 +0.005/-0.005
E	2.70 +0.254/-0.254	0.106 +0.010/-0.010
F	0.50 +0.127/-0.127	0.020 +0.005/-0.005
G	66.90 +0.254/-0.254	2.634 +0.010/-0.010
H	7.60 +0.254/-0.254	0.299 +0.010/-0.010



# Suggested Land Pattern



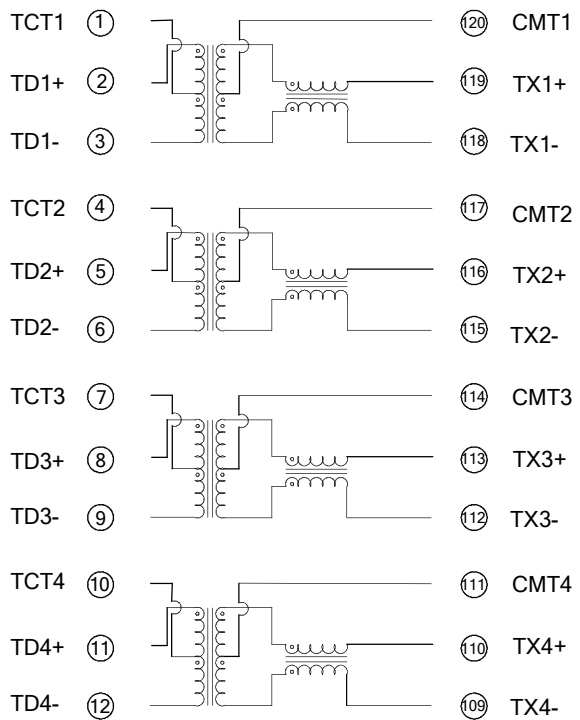
UNIT	mm	inch
a	66.90	2.634
b	8.20	0.323
c	11.60	0.457
d	2.70	0.106
e	0.65	0.026
f	1.02	0.040

Drawn	Jamie.Chuang	Designed	Jamie.Chuang	Approved	James.Cheng
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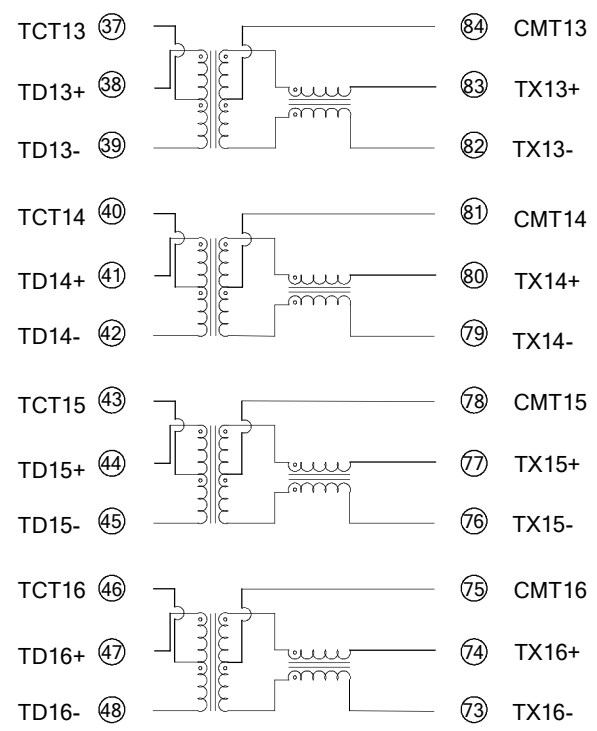
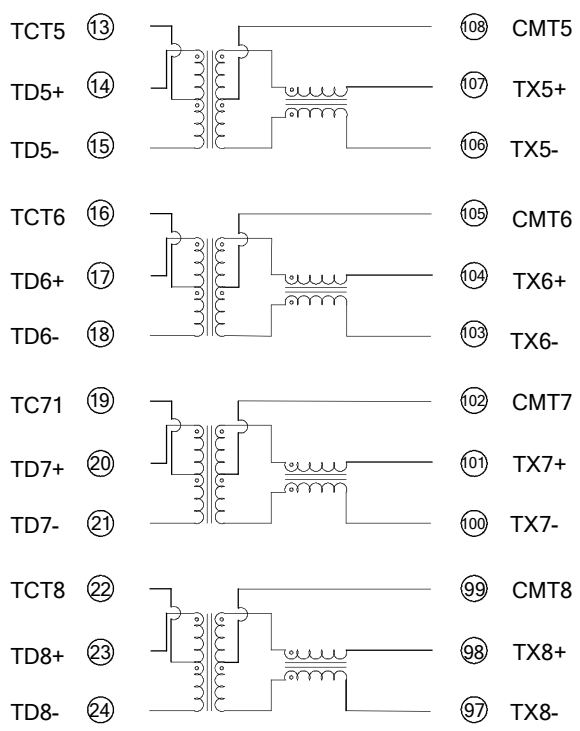
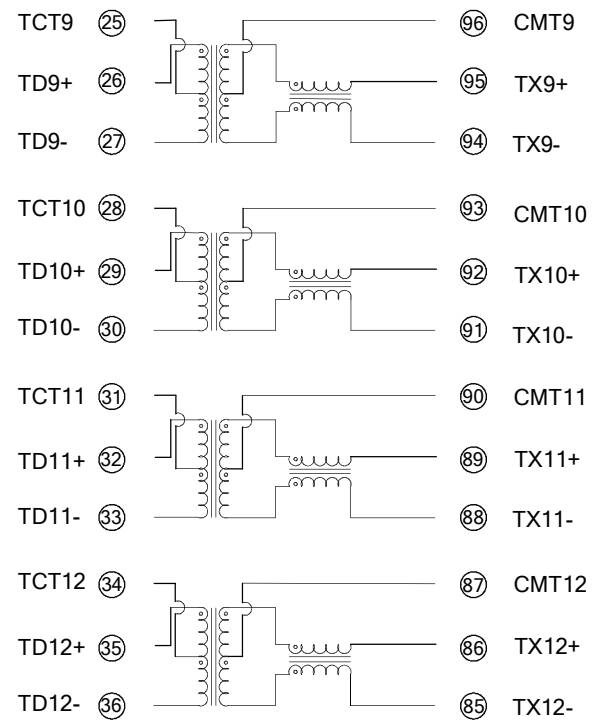
# Schematics

## RT52P01

PHY SIDE                      CABLE SIDE

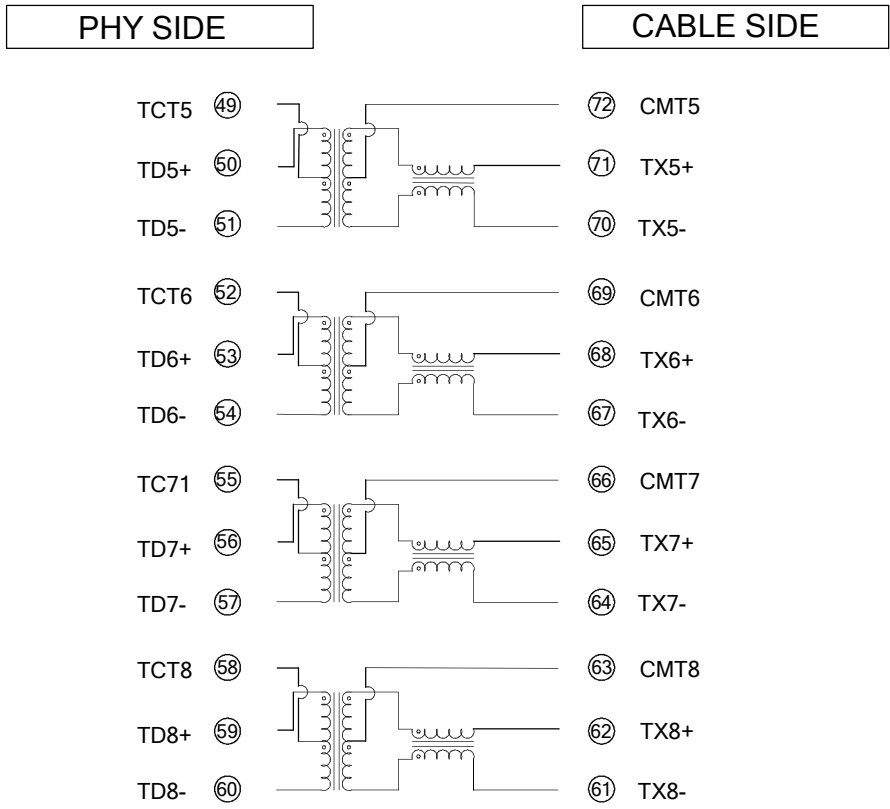


PHY SIDE                      CABLE SIDE



# Schematics

RT52P01



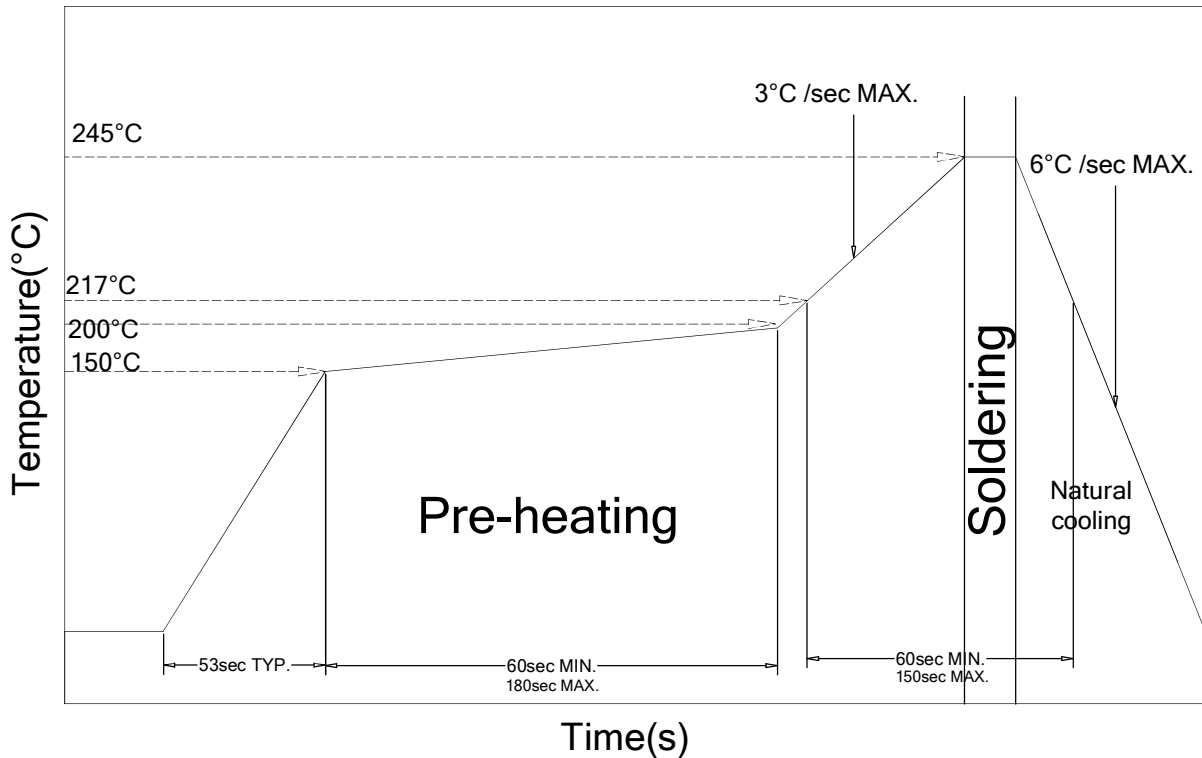
## Electrical Specification @ 25°C, Humidity 65% RH

Inductance @ Phy side(OCL)  
 100KHz, 0.1V, 8mA DC Bias  
 350uH MIN

Part Number	Turns Ratio	Insertion Loss	Return Loss					DMCR			Crosstalk			Hipot
	100KHz	dB MAX	dB MIN					dB MIN			dB MIN			Vrms, Sec
	± 3%	1MHz-100MHz	1MHz-30MHz	40MHz	50MHz	60MHz-80MHz	100MHz	30MHz	60MHz	100MHz	30MHz	60MHz	100MHz	Pri To Sec
RT52P01	1:1	-1.0	-16	-14.4	-13.1	-12	-10	-45	-40	-35	-40	-35	-33	1500, 60

Operating Temperature: 0°C to +70°C.  
 Storage Temperature: -25°C to +105°C  
 JSDEC Moisture: Level 1.

## Reflow Soldering



- IR Reflow soldering :  
Preheat at 3°C per second to 217°C and using lead free solder ,  
IR at 245°C for 30seconds Max.
- Rework flow:  
Component must withstand two IR reflow cycles with a cool down  
between cycles
- 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).