



# Networking Communication Components

## RT Series

### **LAN Transformer**

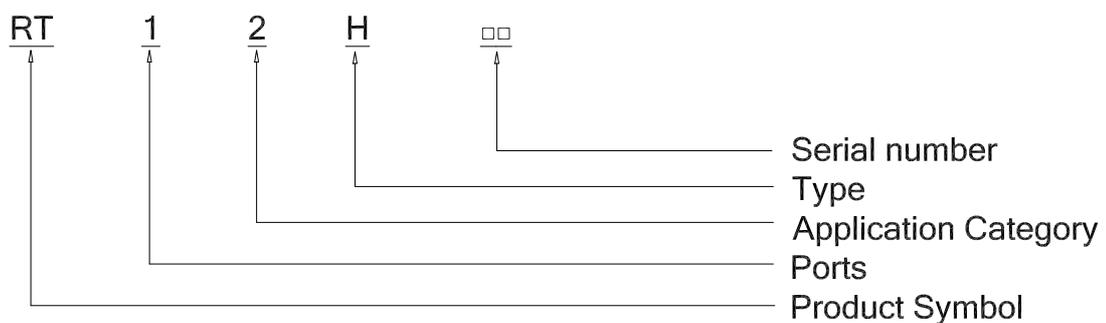
Part number: RT12H05

Part name :Giga Transformer Single Port

### **Feature**

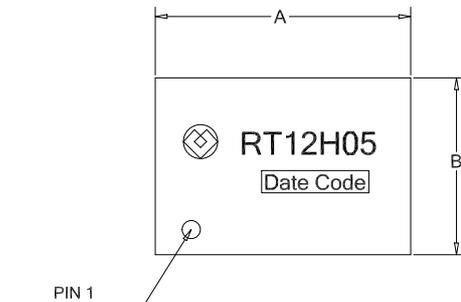
- |  |
|--|
| ● Compliant and peak reflow temperature rating 245°C .   |
| ● Meets IEEE802.3 specification.                         |
| ● Excellent common mode noise suppression.               |
| ● Packaging specification is tube.<br>( RT12H□□ : Tube ) |

### **Part number code**

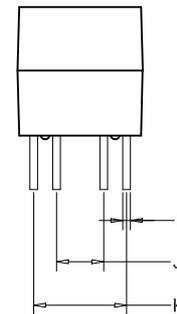
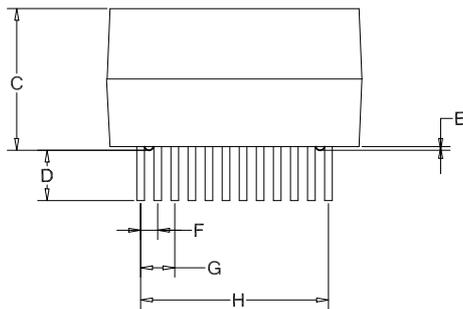
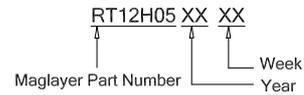




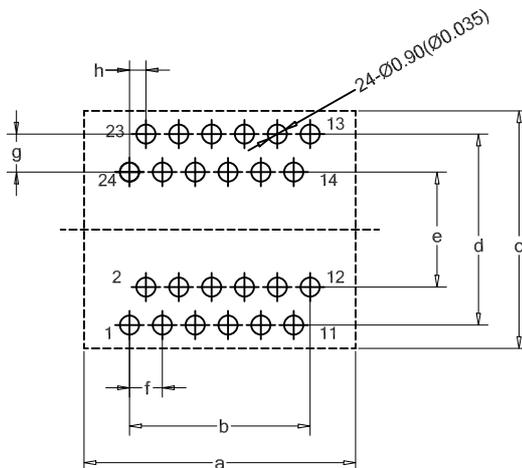
## Mechanical Dimension and Marking



UNIT	mm	inch
A	15.65 +0.25/-0.25	0.616 +0.010/-0.010
B	11.00 +0.25/-0.25	0.433 +0.010/-0.010
C	11.20 +0.25/-0.25	0.441 +0.010/-0.010
D	3.00 +0.25/-0.25	0.118 +0.010/-0.010
E	0.30 +0.05/-0.05	0.012 +0.002/-0.002
F	1.00 +0.05/-0.05	0.039 +0.002/-0.002
G	2.00 +0.05/-0.05	0.079 +0.002/-0.002
H	11.00 +0.25/-0.25	0.433 +0.010/-0.010
I	∅0.40	∅0.016
J	5.33 +0.25/-0.25	0.210 +0.010/-0.010
K	8.89 +0.25/-0.25	0.350 +0.010/-0.010



## Suggested Land Pattern



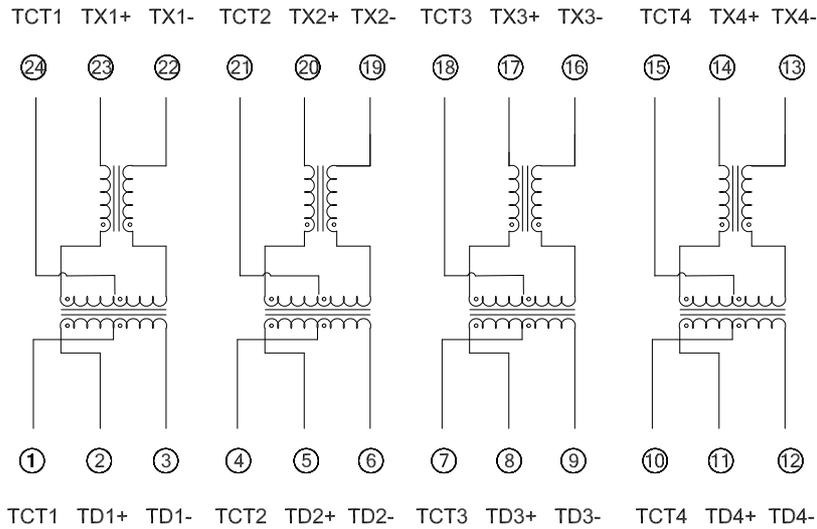
UNIT	mm	inch
a	15.65	0.617
b	11.00	0.433
c	11.10	0.437
d	8.89	0.350
e	5.33	0.210
f	2.00	0.079
g	1.78	0.070
h	1.00	0.039

Drawn	Yuxuan.Xiang	Designed	Yuxuan.Xiang	Approved	James.Cheng
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# Schematics

RT12H05

CABLE SIDE



PHY SIDE

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

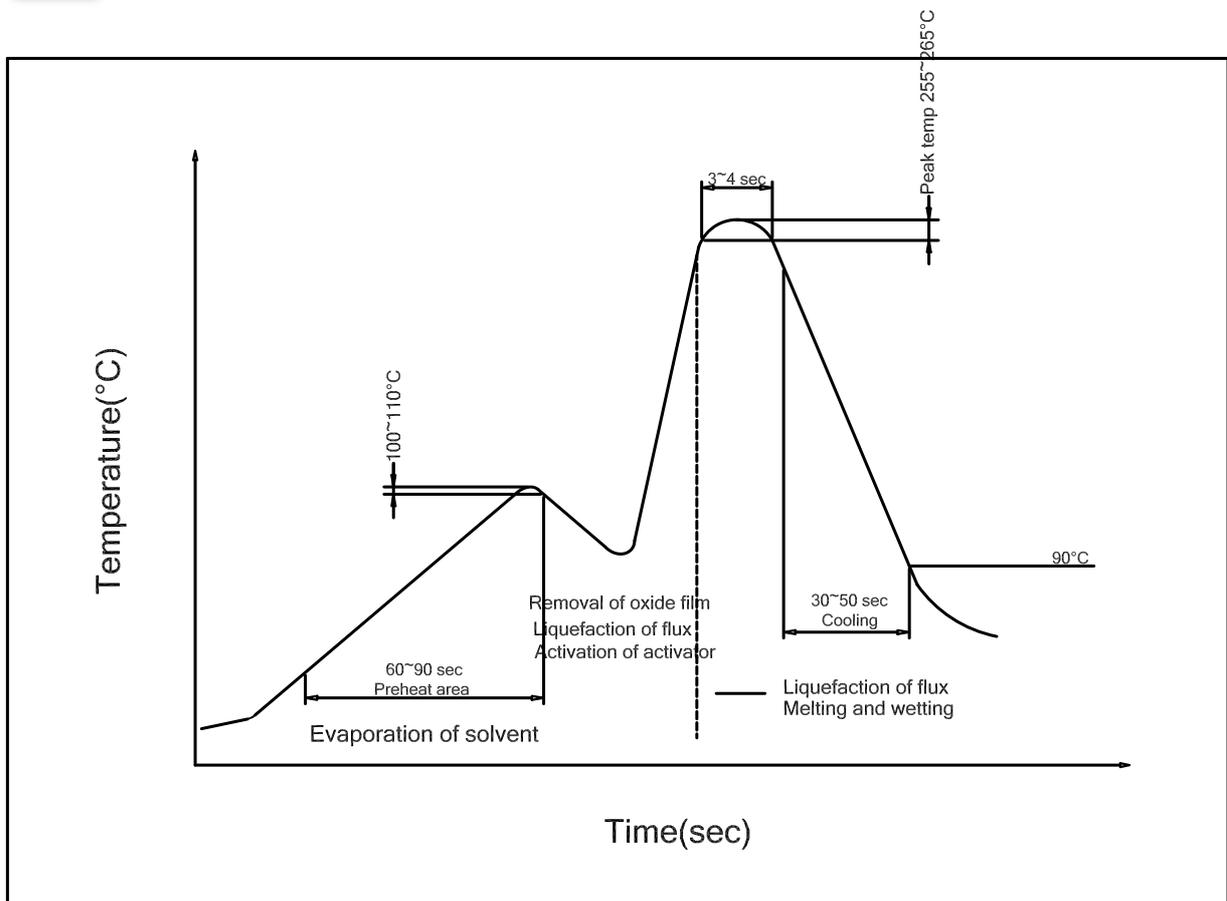
Inductance @ Phy side(OCL)  
 100KHz, 0.1V, 8mA DC Bias  
 350uH MIN

Part Number	Turns Ratio	Insertion Loss	Return Loss					DMCR			Crosstalk			Hipot
	100KHz	dB MAX	dB MIN					dB MIN			dB MIN			Vrms, Sec
	± 5%	1MHz-100MHz	1MHz-30MHz	40MHz	50MHz	60MHz-80MHz	100MHz	30MHz	60MHz	100MHz	30MHz	60MHz	100MHz	Pri To Sec
RT12H05	1:1	-1.0	-18	-14.4	-13.1	-12	-10	-43	-37	-33	-40	-35	-30	1500, 60

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



## Reflow Soldering



- Tip Temperature : $265^{\circ}\text{C}$  MAX.
- Tip Temperature Time: 4sec MAX.