

DUAL BROADBAND PLC TRANSFORMER

DT1142CE



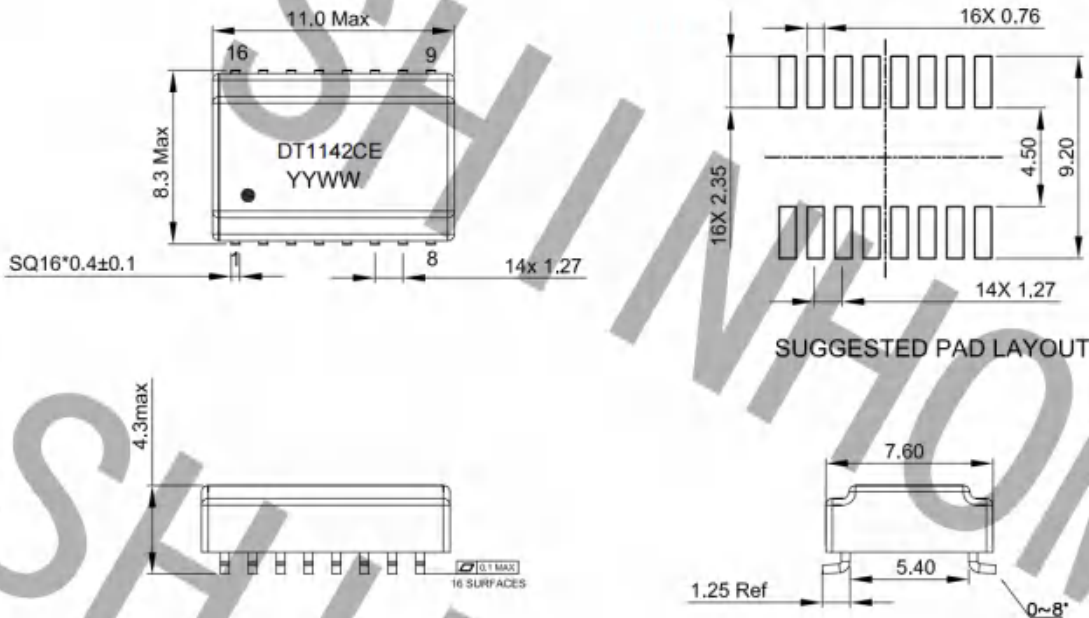
FEATURES:

- DESIGN FOR PLC(POWER LINE COMMUNICATION) APPLICATION.
- ROHS COMPLIANT.
- REINFORCED INSULATION
- OPERATING TEMPERATURE RANGE: -40°C TO 125°C.

Electrical Specifications @25°C

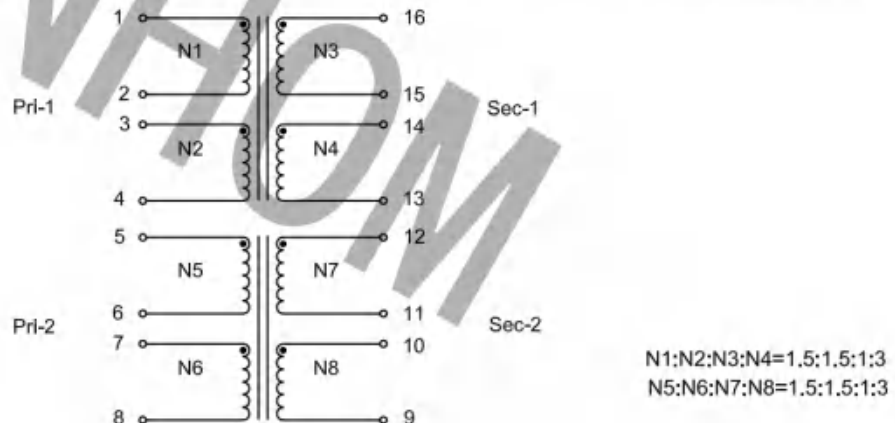
Part Number	Turns Ratio @100KHz,1V	OCL @100KHz 0.1V			IL @2MHz-200MHz	DCR @25°C			HI-POT (Pri TO Sec)
	1-2:3-4:16-15:14-13 5-6:7-8:12-11:10-9	1-2,3-4 5-6,7-8	16-15 12-11	14-13 10-9	1-4(Short2-3) To 14-13 5-8(Short7-6) To 10-9	1-2,3-4 5-6,7-8	16-15 12-11	14-13 10-9	1000Vrms, 1mA,2S
DT1142CE	1.5:1.5:1:3±5%	17uH Min	7.5uH Min	70uH Min	2.0dB Max	160mΩ Max	60mΩ Max	240mΩ Max	

MECHANICAL DIMENSIONS(unit:mm)



• Unless otherwise specified all tolerances are:±0.25mm

SCHEMATICS



BROADBAND PLC TRANSFORMER

T002DG

FEATURES:

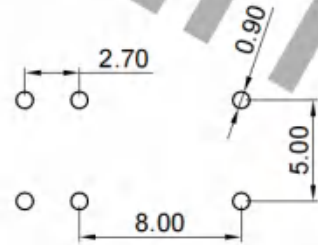
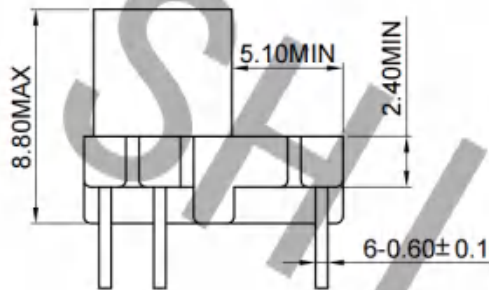
- POWER LINE COMMUNICATION TRANSFORMER
- OPERATING TEMPERATURE RANGE: 0°C TO 70°C
- STORAGE TEMPERATURE RANGE: -40°C TO +85°C
- ROHS COMPLIANT



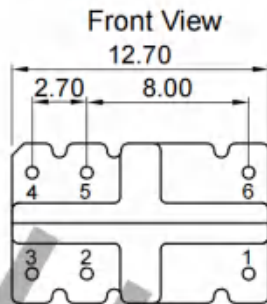
Electrical Specifications @25°C

Part Number	Turns Ratio		OCL (@100KHz,0.1V)			Insertion Loss		Frequency Range	Hi-pot
	P1-6:P5-2	P1-6:P4-3	P1-6	P5-2	P4-3	P1-6:P5-2	P1-6:P4-3	MHz	
T002DG	3:4±5%	3:1±5%	18.3uH±45%	32.5uH±45%	2.0uH±45%	2.0dB Max	6.0dB Max	2-70	3000VAC/60S

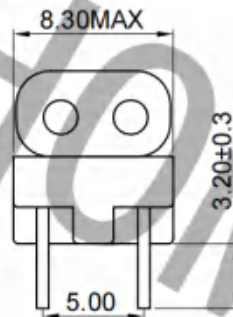
MECHANICAL



Recommend PAD layout

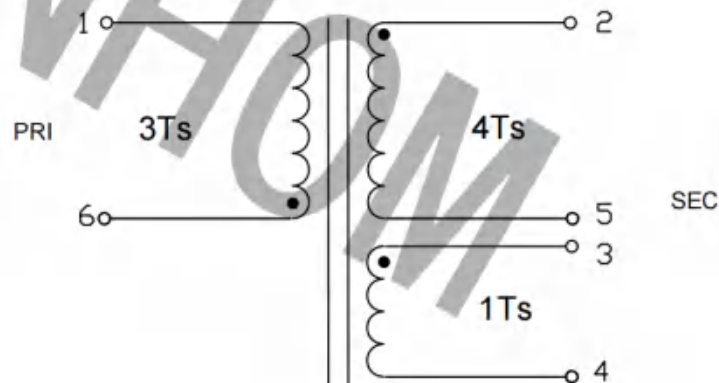


Bottom View



Unless otherwise specified all tolerances are:±0.25 mm

SCHEMATICS



BROADBAND PLC TRANSFORMER

T006DG

FEATURES:

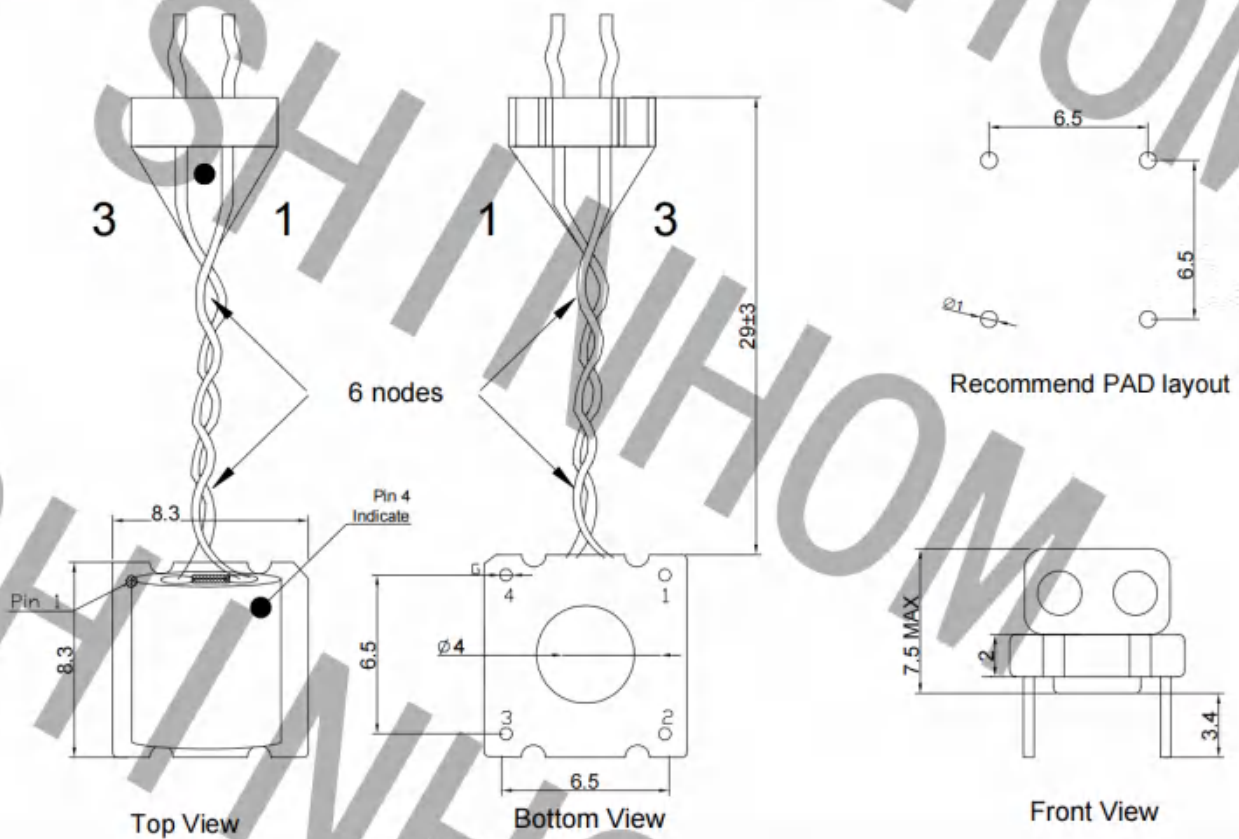
- POWER LINE COMMUNICATION TRANSFORMER
- OPERATING TEMPERATURE RANGE: 0°C TO 70°C
- STORAGE TEMPERATURE RANGE: -40°C TO +85°C
- ROHS COMPLIANT



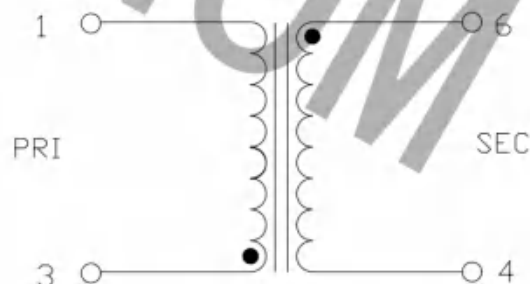
Electrical Specifications @25°C

Part Number	Turns Ratio	OCL (@2MHz,0.1V)	Insertion Loss	Frequency Range	Hi-pot
	Pri:Sec/1-3:4-6	1-3=4-6	2-68 MHz	MHz	3000VAC/3S
T006DG	1:1±5%	12.5-30.0uH	3.0dB Max	2-68	

MECHANICAL



SCHEMATICS



BROADBAND PLC TRANSFORMER

T008DG

FEATURES:

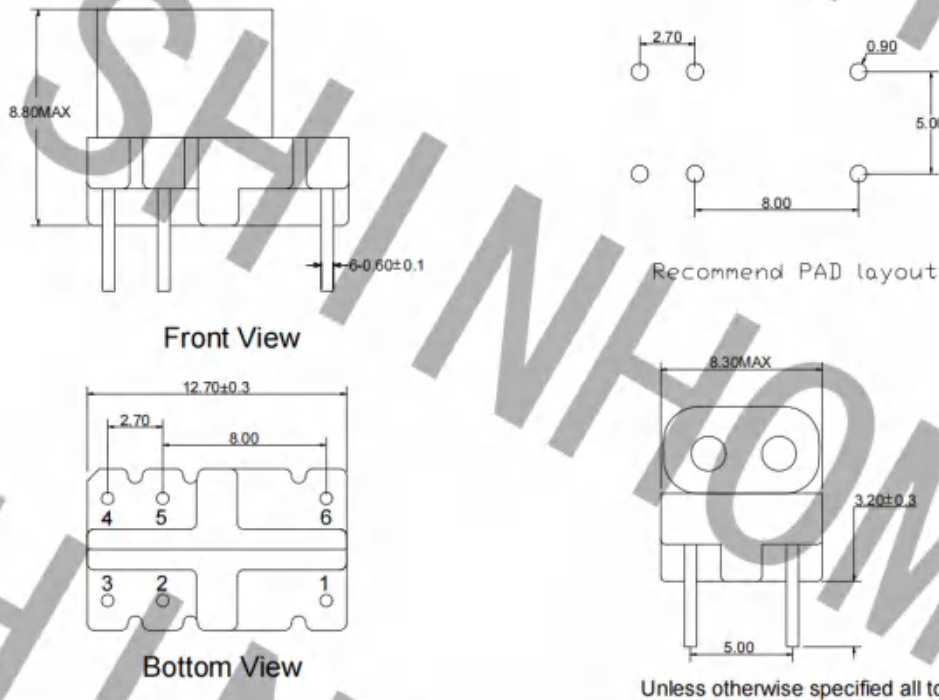
- POWER LINE COMMUNICATION TRANSFORMER
- OPERATING TEMPERATURE RANGE: 0°C TO 70°C
- STORAGE TEMPERATURE RANGE: -40°C TO +85°C
- ROHS COMPLIANT



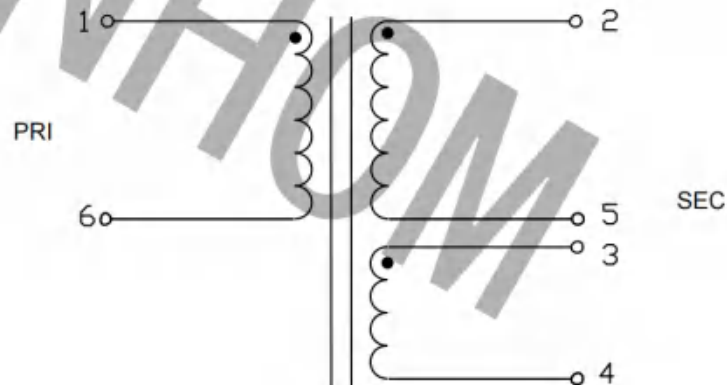
Electrical Specifications @25°C

Part Number	Turns Ratio		OCL (@10KHz,1V)	LK (@1MHz,0.1V) P1-6 (short other)	DCR			Hi-pot
	P1-6:P3-4	P1-6:2-5	P1-6		P1-6	P2-5	P3-4	
T008DG	1:1±5%	3:1±5%	9.5uH Min	225nH Max	350 mΩ Max	150 mΩ Max	300 mΩ Max	3750VAC 0.5mA/1S

MECHANICAL



SCHEMATICS

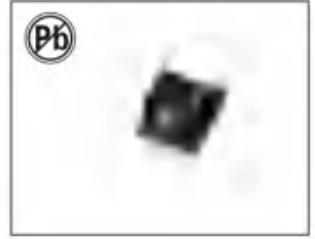


BROADBAND PLC TRANSFORMER

T012DG

FEATURES:

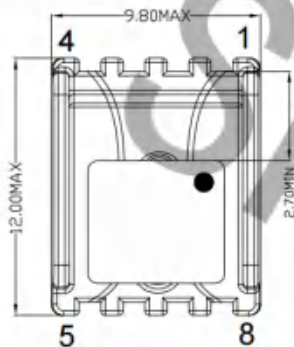
- POWER LINE COMMUNICATION TRANSFORMER
- OPERATING TEMPERATURE RANGE: 0°C TO 70°C
- STORAGE TEMPERATURE RANGE: -40°C TO +85°C
- ROHS COMPLIANT



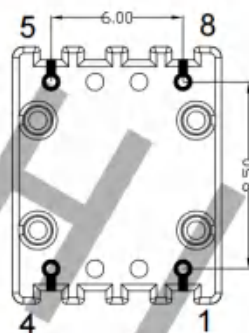
Electrical Specifications @25°C

Part Number	Turns Ratio	OCL (@2MHz,0.1V)	Insertion Loss	Frequency Range	Hi-pot
	Pri:Sec/1-4:5-8	1-4=5-8	2-68 MHz	MHz	3000VAC/60S
T012DG	1:1±5%	21.5uH±45%	3.0dB Max	2-68	

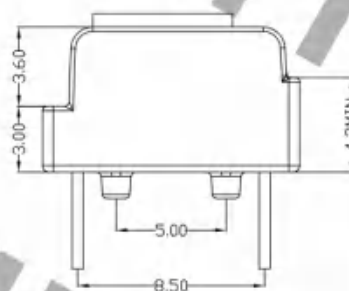
MECHANICAL



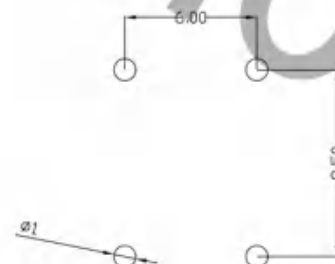
TOP VIEW



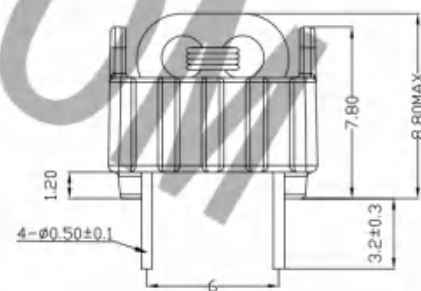
BOTTOM VIEW



SIDE VIEW



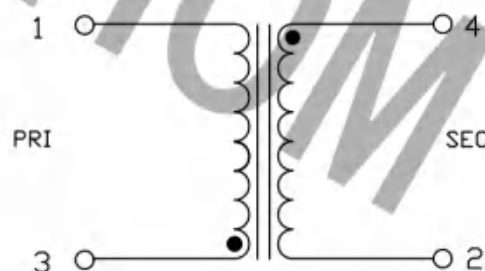
Recommend PAD layout



FRONT VIEW

Unless otherwise specified all tolerances are:±0.25 in mm

SCHEMATICS



BROADBAND PLC TRANSFORMER

T038DG

FEATURES:

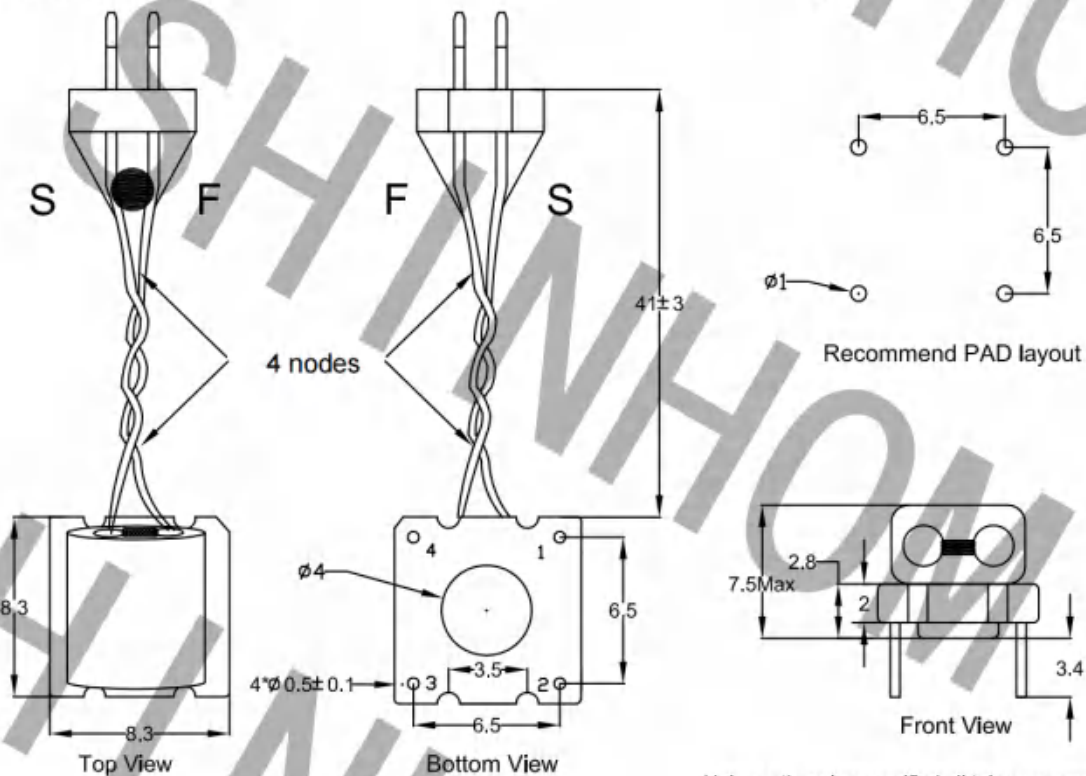
- POWER LINE COMMUNICATION TRANSFORMER
- OPERATING TEMPERATURE RANGE: 0°C TO 70°C
- STORAGE TEMPERATURE RANGE: -40°C TO +85°C
- ROHS COMPLIANT



Electrical Specifications @25°C

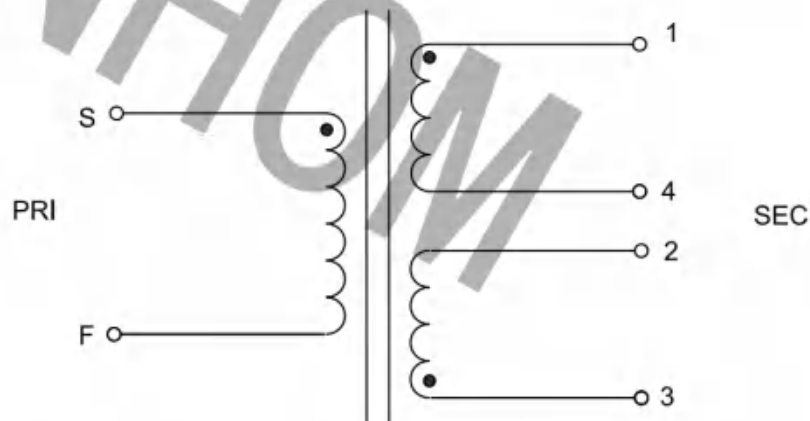
Part Number	Turns Ratio (@100KHz,0.1V)		OCL (@100KHz,0.1V)			Frequency Range	Hi-pot
	P(S-F):P(1-4)	P(S-F):P(3-2)	P(S-F)	P(1-4)	P(3-2)	MHz	
T038DG	3:4±5%	3:1±5%	9.5uH Min	16.9uH Min	1.05uH Min	2-30	3000VAC/3S

MECHANICAL



Unless otherwise specified all tolerances are:±0.25 in mm

SCHEMATICS



BROADBAND PLC TRANSFORMER

T047DG

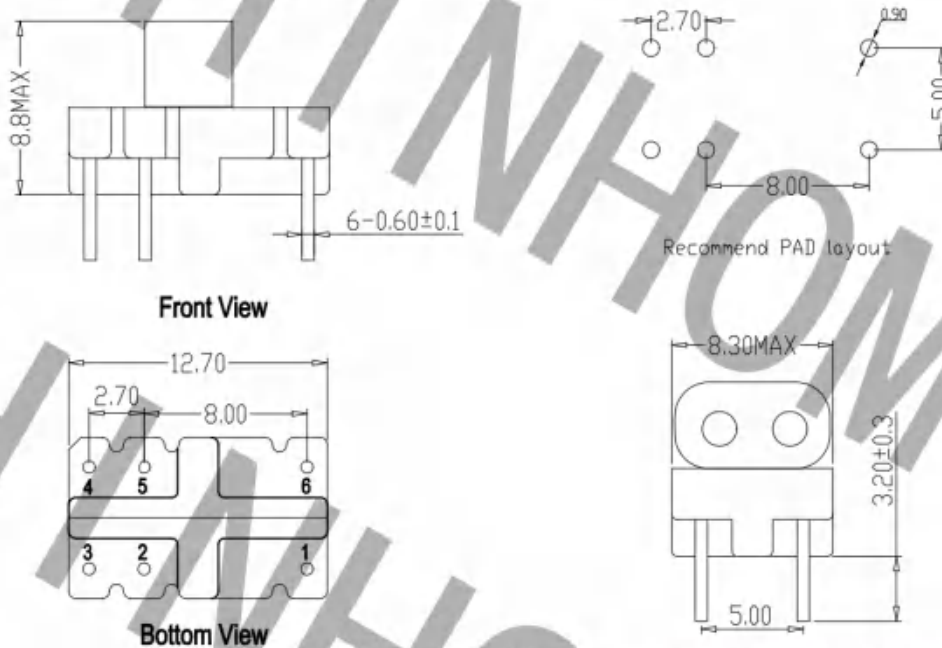


FEATURES:

- DESIGN FOR PLC(POWER LINE COMMUNICATION) APPLICATION.
- ROHS COMPLIANT.
- REINFORCED INSULATION
- OPERATING TEMPERATURE RANGE: 0°C TO 70°C.

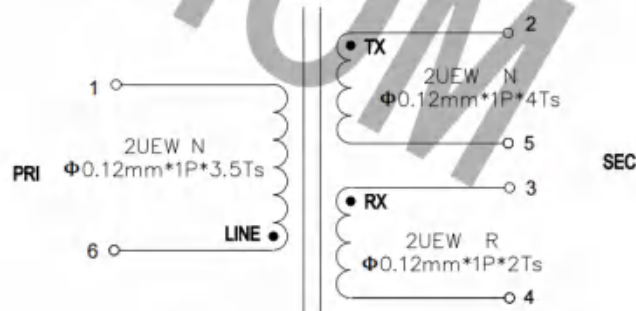
Electrical Specifications @25°C							
Part Number	Turns Ratio (@100KHz,0.1V)	OCL (@100KHz,0.1V)			DCR(@25°C		
	6-1:2-5:3-4	6-1	2-5	3-4	6-1	2-5	3-4
	(3.5:4:2)±5%	34.3uH Min	44.8uH Min	11.2uH Min	0.5Ω max	0.5Ω max	0.25Ω max
T047DG	Continue						
	Hi-pot	Insulation resistance 500VDC/1mA		INSERTION LOSS 1-6 To 2-5 (Measure back to back)		INSERTION LOSS 6-1 To 3-4 (Measure back to back)	
	6-1To 2-5,3-4	6-1To 2-5,3-4		2-68MHz		2-68MHz	
	500VDC/1mA/2S	5MΩ Min		-3.0dB Min		-6.0dB Min	

MECHANICAL DIMENSIONS(unit:mm)



• Unless otherwise specified all tolerances are:±0.25mm

SCHEMATIC

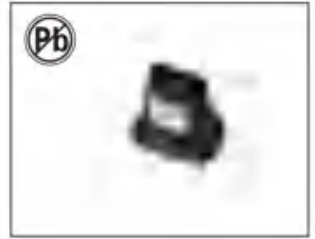


BROADBAND PLC TRANSFORMER

T049DG

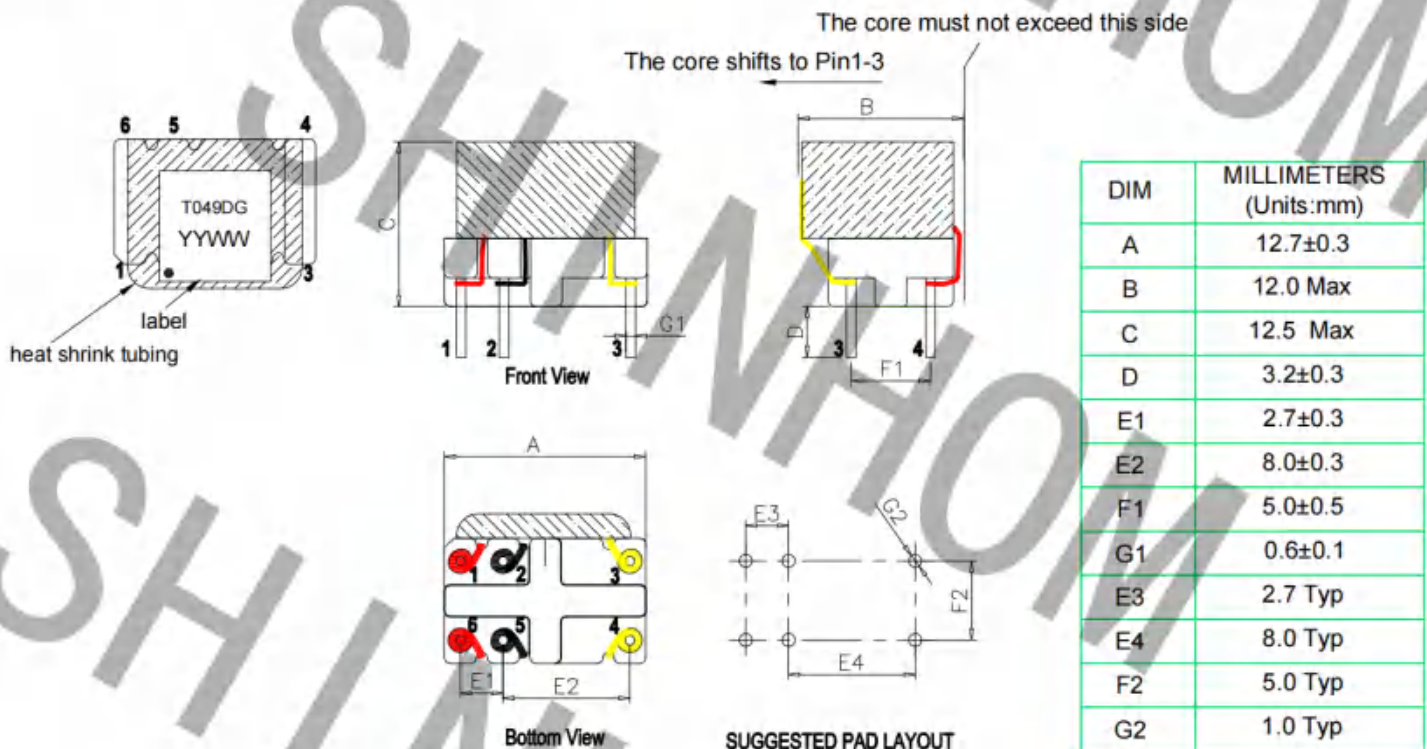
FEATURES:

- DESIGN FOR PLC(POWER LINE COMMUNICATION) APPLICATION.
- ROHS COMPLIANT.
- REINFORCED INSULATION
- OPERATING TEMPERATURE RANGE: -40°C TO 85°C.



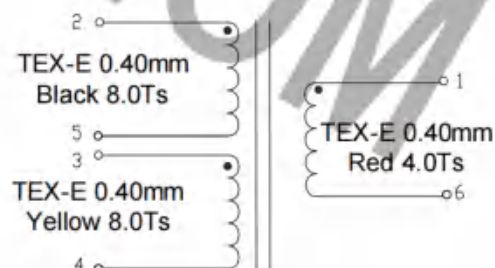
Electrical Specifications @25°C						
Part Number	Turns Ratio 100KHz,1.0V	OCL 1.0KHz,1.0V		DC Resistance		Hi-pot 3-4 To1-6, 2-5
	P1-6:P2-5:P3-4	P2-5=P3-4	P1-6	P2-5=3-4	P1-6	3000Vac 3mA/60S/60Hz
T049DG	1:2:2±5%	28.0uH MIN	7.0uH MIN	34mΩ MAX	22mΩ MAX	

MECHANICAL DIMENSIONS(unit:mm)



• Unless otherwise specified all tolerances are:±0.25mm

SCHEMATIC



BROADBAND PLC TRANSFORMER

T096SG

FEATURES:

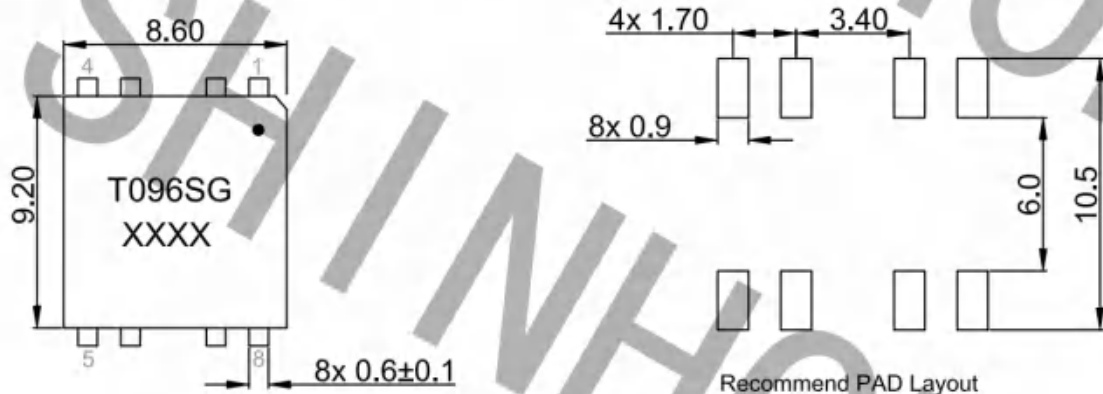
- DESIGN FOR PLC(POWER LINE COMMUNICATION) APPLICATION.
- ROHS COMPLIANT.
- SUPPLEMENTARY INSULATION.
- OPERATING TEMPERATURE RANGE: -40℃ TO +85℃.



Electrical Specifications @25°C

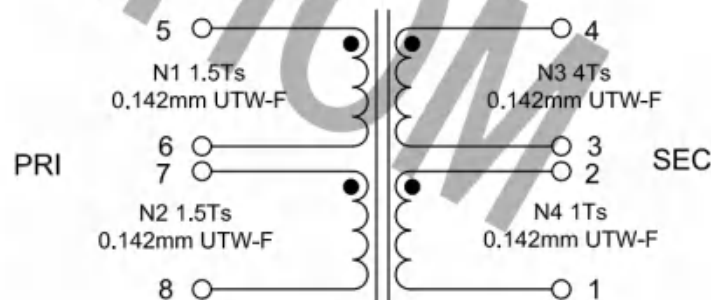
Part Number	OCL (@100KHz,1V)		Lk(@100KHz,1V)	DCR			Hi-pot
	8-5(Shorted6-7)	3-4	3-4	5-8(Shorted6-7)	3-4	1-2	PRI TO SEC 3750VAC/1S
T096SG	1.4uH Min	2.5uH Min	300nH Max	0.095ohm MAX	0.075ohm MAX	0.045ohm MAX	

MECHANICAL DIMENSIONS(unit:mm)



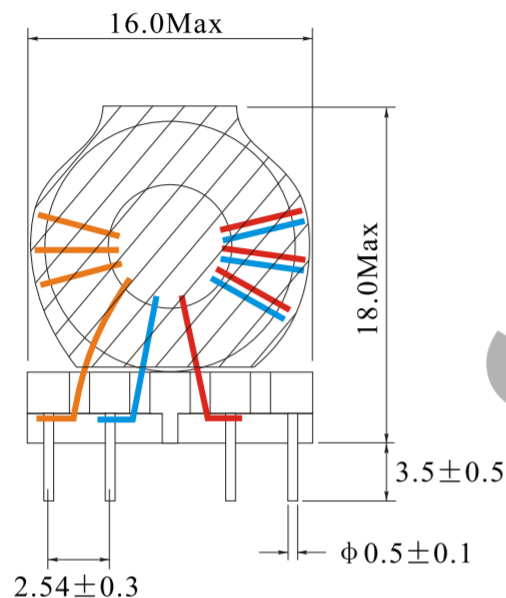
• Unless otherwise specified all tolerances are:±0.25mm

SCHEMATIC

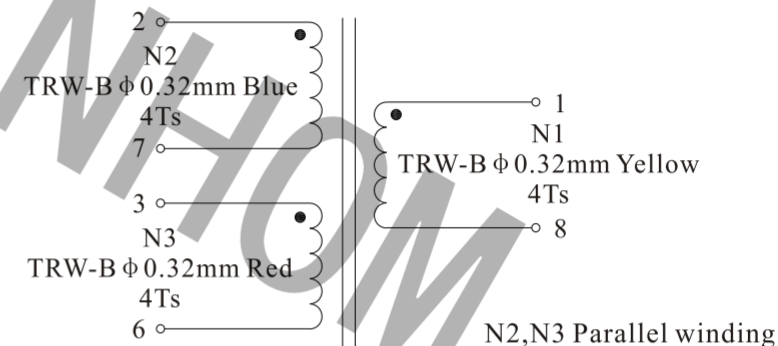


Rev.	Description	Date
A0	New release	2023.05.10

1. PHYSICAL CHARACTERISTICS (mm)



2. ELECTRICAL SCHEMATIC



3. ELECTRICAL SPECIFICATIONS

Turns ratio: (1-8):(2-7):(3-6)=1:1:1

Inductance(each winding): 7.0uH ± 30% @ 1.0KHz, 1V

DCR(each winding): 30mΩ Max

Hi-Pot: 3000Vac, 5mA, 60S Coil to Core

3000Vac, 5mA, 60S Pin 1, 2, 7, 8 to Pin 3, 6

Operating temperature: -40°C to +105°C

Storage temperature: -20°C to +65°C



SHINHOM
SHAANXISHINHOM ENTERPRISE CO LTD

The Document property belong
to SHINHOM & is not allowed to be
duplicated without authorization

NAME:	Isolation transformers for broadband PLC system		
CUSTOMER P/N:		DATE:	2023-05-10
SHINHOM P/N:	T1025	REV: A0	PAGE
DRAWN BY	CHECKED BY	APPROVE BY	

T105SG

FEATURES:

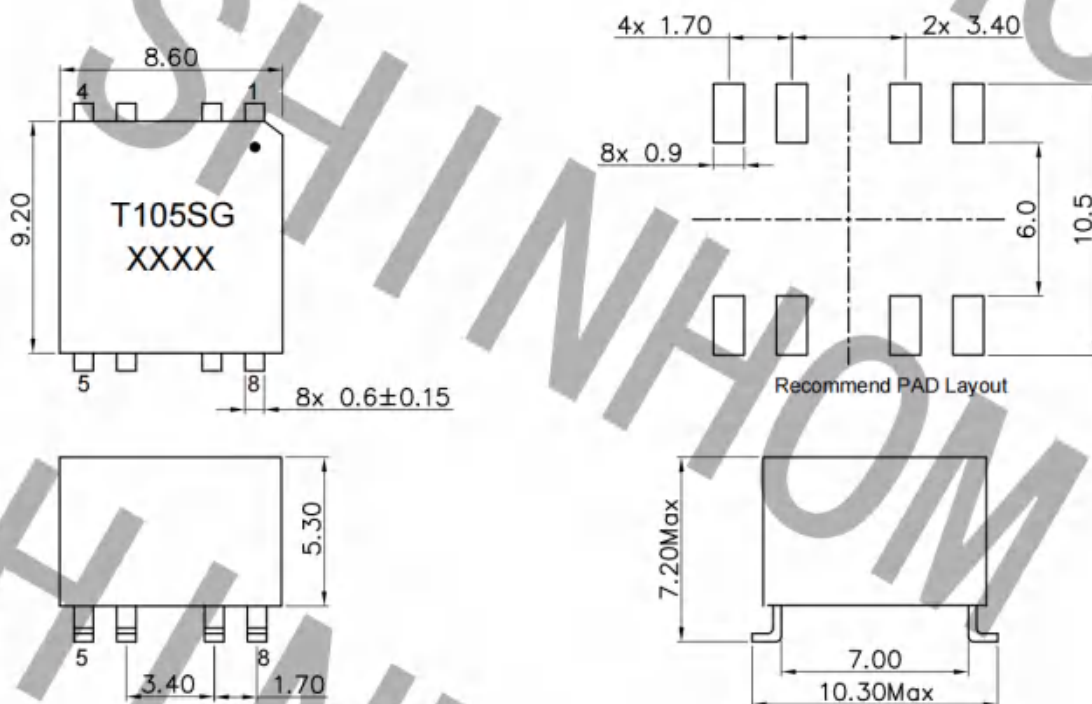
- DESIGN FOR PLC(POWER LINE COMMUNICATION) APPLICATION.
- ROHS COMPLIANT.
- SUPPLEMENTARY INSULATION.
- OPERATING TEMPERATURE RANGE: -40℃ TO +85℃.



Electrical Specifications @25°C

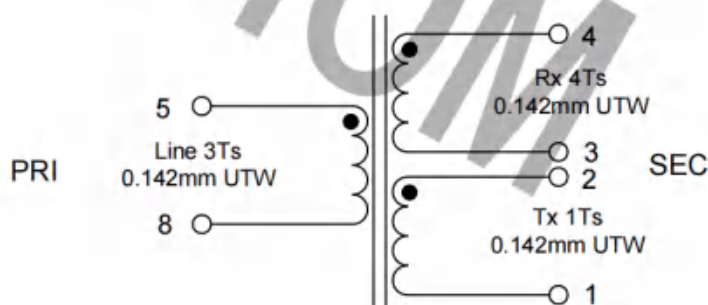
Electrical Specifications @25°C							
Part Number	OCL (@100KHz,1V)		LK(@100KHz,1V)	DCR			Hi-pot
	8-5	3-4	3-4	5-8	3-4	1-2	pri to sec
T105SG	1.4uH Min	2.5uH Min	300nH Max	0.095ohm MAX	0.075ohm MAX	0.045ohm MAX	3750VAC/2S

MECHANICAL DIMENSIONS(unit:mm)



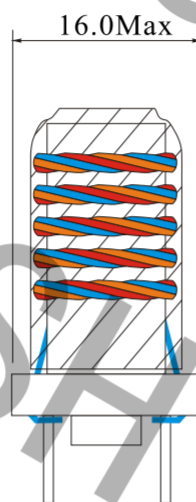
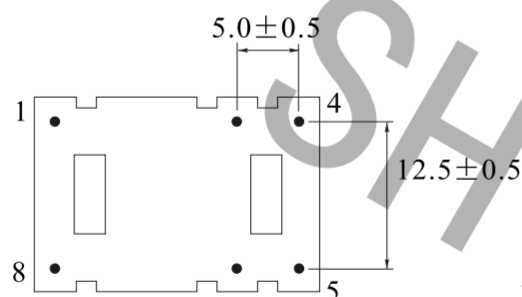
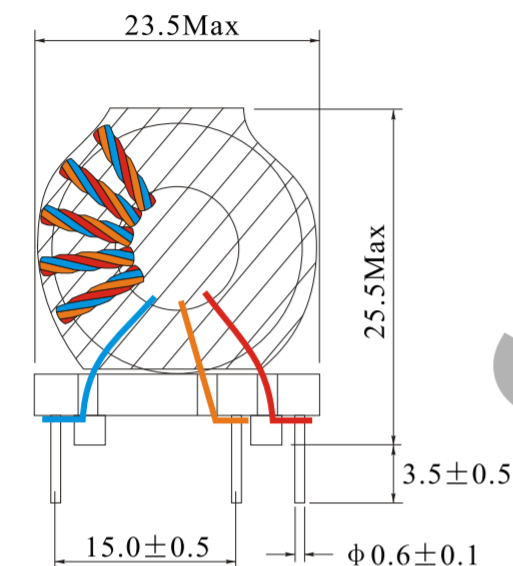
● Unless otherwise specified all tolerances are: ± 0.25 mm

SCHEMATICS

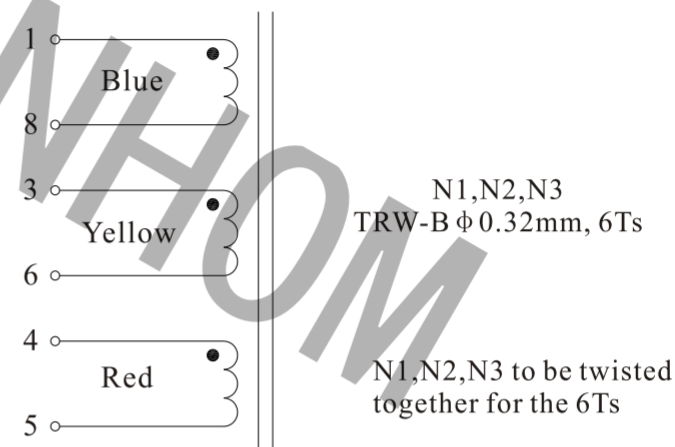


Rev.	Description	Date
A0	New release	2023.05.10

1. PHYSICAL CHARACTERISTICS (mm)



2. ELECTRICAL SCHEMATIC



3. ELECTRICAL SPECIFICATIONS

Turns ratio: (1-8):(3-6):(4-5)=1:1:1

Inductance(each winding): 16.5uH±30%@1.0KHz,1V

DCR(each winding): 41mΩ Max

Hi-Pot: 6000Vac,5mA,60S Coil to Core

Operating temperature: -40℃ to +105℃

Storage temperature: -20℃ to +65℃

NAME:	Isolation transformers for broadband PLC system		
CUSTOMER P/N:		DATE:	2023-05-10
SHINHOM P/N:	T1099	REV: A0	PAGE
DRAWN BY	CHECKED BY	APPROVE BY	



SHINHOM
SHAANXISHINHOM ENTERPRISE CO LTD

The Document property belong to SHINHOM & is not allowed to be duplicated without authorization

BROADBAND PLC TRANSFORMER

T1110CA

FEATURES:

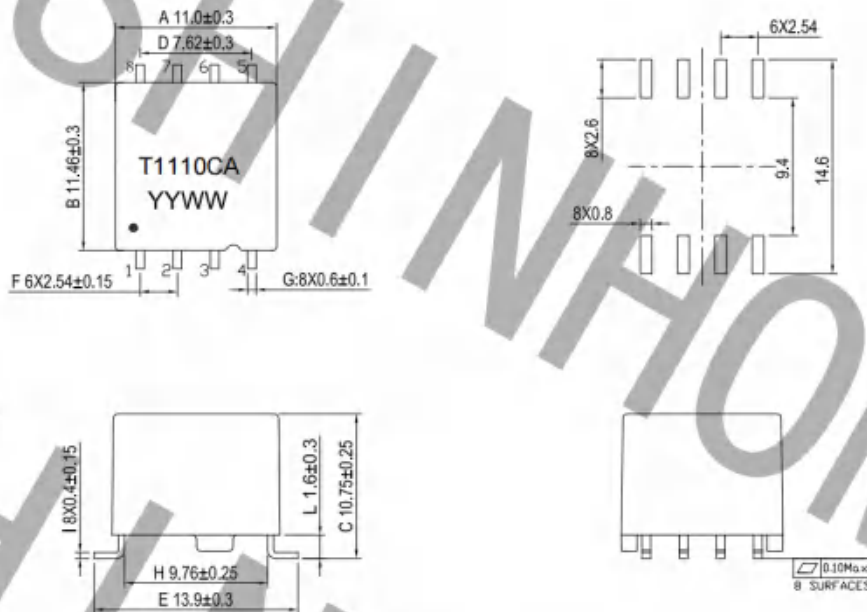
- OPERATING TEMPERATURE RANGE: -40℃ TO+125℃
- SURFACE MOUNT DEVICE PROVIDING COMPACT FOOTPRINT
- ROHS COMPLIANT



ELECTRICAL SPECIFICATIONS @25℃

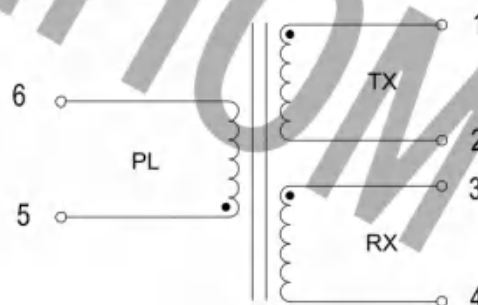
Part Number	Turns Ratio @100KHz, 1V	OCL @1MHz 0.1V	OCL@1MHz 0.1V -40℃TO+85℃	L.L @1MHz 0.1V	DCR @25℃	
	1-2:3-4:5-6	1-2,5-6	1-2,5-6	5-6(short1+2+3+4)	1-2,5-6	3-4
T1110CA	1:3:1±5%	16uH Min	10uH Min	0.2uH Max	0.22Ω Max	0.5Ω Max
	CWW@100kHz,1V	Insertion los @0.5-30MHz	Return loss @0.5-30MHz	IR	HI-POT (PLTo TX, TX)	
	1-6(short2+3)	5-6 To 1-2	5-6 To 1-2	500VDC	3000Vrms, 1mA,60S	
	15pF Max	-1.0dB MAX	-10.0dB Min	100MΩ MIN		

MECHANICAL DIMENSIONS



• Unless otherwise specified all tolerances are:±0.25mm

SCHEMATICS



DUAL BROADBAND PLC TRANSFORMER

T1113CE

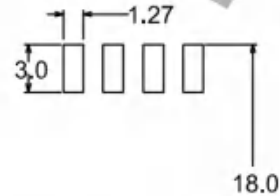
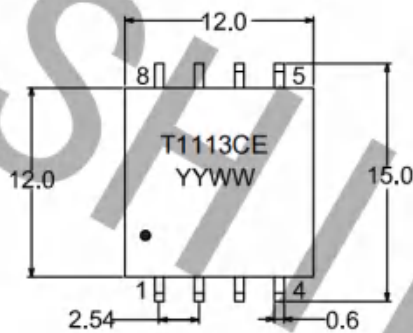


FEATURES:

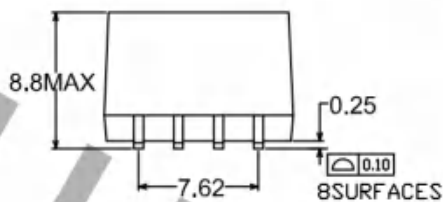
- Design For PLC(power line communication) Application.
- RoHS Compliance Product
- Surface Mount Device Providing Compact Footprint
- Operating Temperature Range: -40°C TO +85°C.

Electrical Specifications @25°C							
Part Number	Turns Ratio @100KHz, 1.0V	OCL @100KHz 0.1V 15mA	L.L @100KHz 0.1V	C _{ww} @100KHz 0.1V	Insertion loss @2-21MHz dB Max	Return loss @2-21MHz dB Min	HI-POT (1mA, 1S)
	1-2:3-4:5-6	1-2,3-4,5-6	1-4(short2-3,5-6)	1-6			
T1113CE	1:1:1±5%	15uH Min	0.5uH Max	10pF Max	3.0	9.0	6000V DC

MECHANICAL DIMENSIONS(unit:mm)

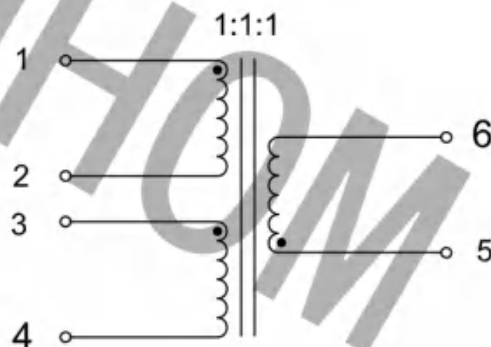


SUGGESTED PAD LAYOUT



• Unless otherwise specified all tolerances are:±0.25mm

SCHEMATICS



BROADBAND PLC TRANSFORMER

T1116CE

FEATURES:

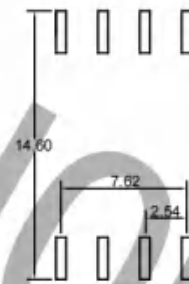
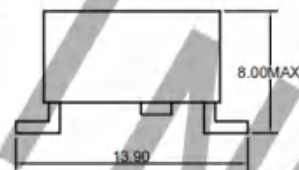
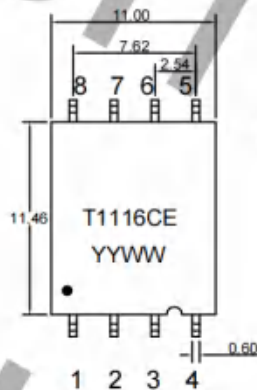
- DESIGN FOR PLC(POWER LINE COMMUNICATION) APPLICATION.
- ROHS COMPLIANT.
- REINFORCED INSULATION
- OPERATING TEMPERATURE RANGE: -40℃ TO 85℃.



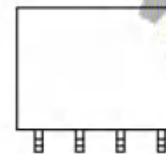
Electrical Specifications @25°C

Part Number	Turns Ratio @100KHz,0.1V	OCL @100KHz 0.1V	L.L @100KHz 0.1V	Insertion loss	IR (Pri TO Sec)
	1-2:3-4:5-8	1-2,3-4,5-8	5-8(short1+2+3+4)	0.5-20MHz	500VDC 100MΩ Min
T1116CE	1:1:1±2%	250uH Min	1.0uH Max	1.0dB MAX	
	Continue				
	DCR @25°C		C _{ww} @100KHz 1V	Return loss	HI-POT (Pri TO Sec)
	1-2,3-4	5-8	1-8	0.5-20MHz	3000Vrms, 0.5mA,60S
	0.4Ω Max	0.5Ω Max	15pF Max	14dB Min	

MECHANICAL



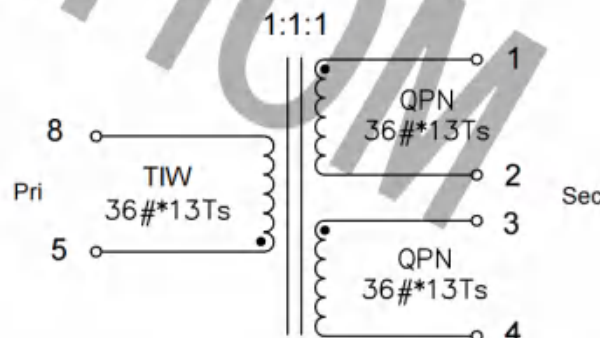
SUGGESTED PAD LAYOUT



0.10
8 SURFACES

Unless otherwise specified all tolerances are:±0.25 in mm

SCHEMATICS

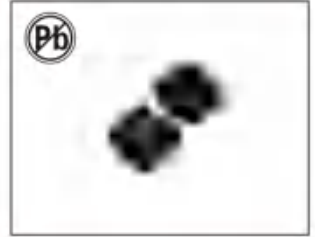


BROADBAND PLC TRANSFORMER

T1117CA

FEATURES:

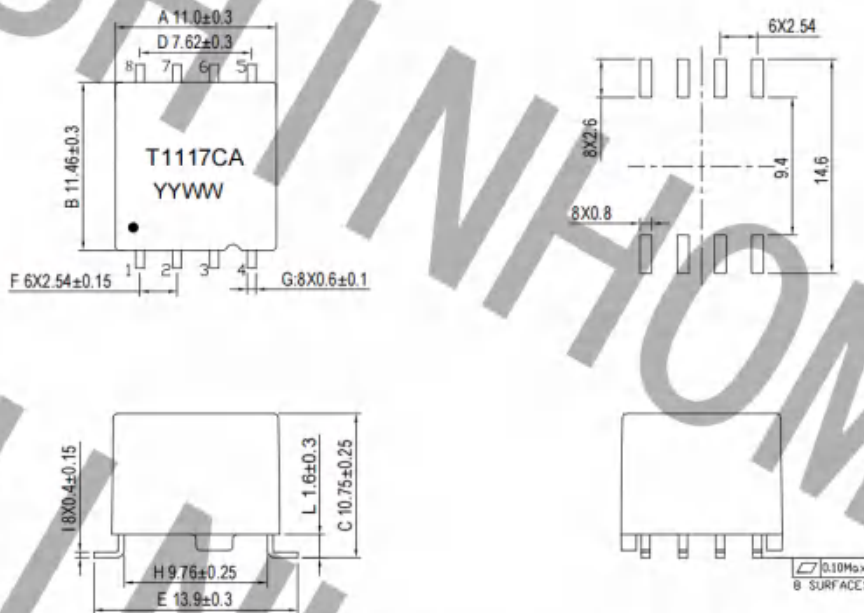
- DESIGN FOR PLC(POWER LINE COMMUNICATION) APPLICATION.
- ROHS COMPLIANT.
- REINFORCED INSULATION
- OPERATING TEMPERATURE RANGE: -40℃ TO 85℃.



ELECTRICAL SPECIFICATIONS @25℃

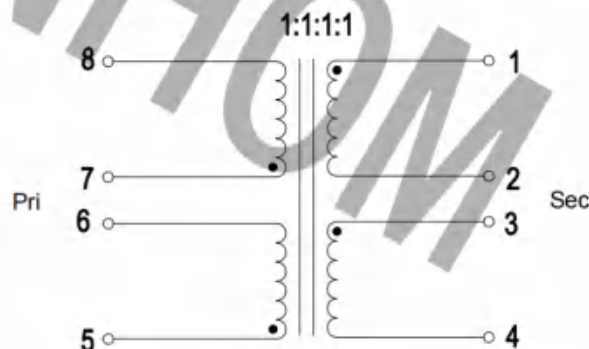
Part Number	Turns Ratio @100KHz,1V	OCL @100KHz 0.1V	L.L @100KHz 0.1V	DCR @25℃	HI-POT (Pri To Sec)
	1-2:3-4:5-6:7-8	1-2,3-4,5-6,7-8	5-8(short1+2+3+4,6+7)	1-2,3-4,5-6,7-8	
T1117CA	1:1:1:1±5%	250uH Min	1.0uH Max	0.4Ω Max	3000Vrms, 1mA,60S
	CWW@100kHz,1V	Insertion loss @0.5-30MHz	Return loss @0.5-30MHz	IR	
	1-8(short2+3,6+7)			500VDC	
	25pF Max			100MΩ MIN	

MECHANICAL DIMENSIONS



● Unless otherwise specified all tolerances are ±0.25mm

SCHEMATICS



BROADBAND PLC TRANSFORMER

T1118CA

FEATURES:

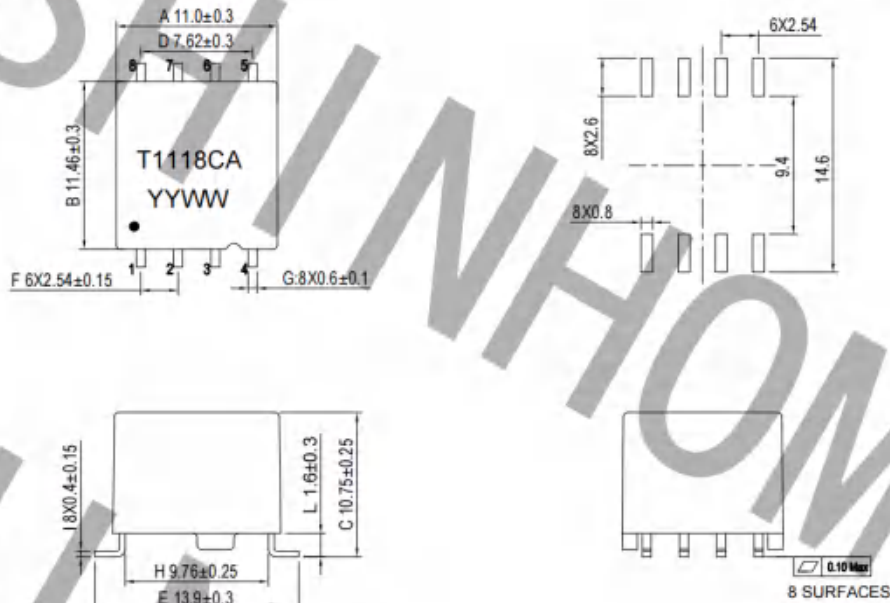
- OPERATING TEMPERATURE RANGE: -40℃ TO+125℃
- SURFACE MOUNT DEVICE PROVIDING COMPACT FOOTPRINT
- ROHS COMPLIANT



ELECTRICAL SPECIFICATIONS @25°C

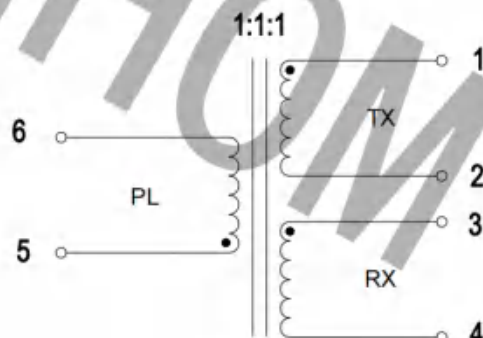
ELECTRICAL SPECIFICATIONS @25°C						
Part Number	Turns Ratio @100KHz,1V	OCL @100KHz 0.1V	L.L @100KHz 0.1V	DCR @25°C		HI-POT (PLTo TX, TX)
	1-2:3-4:5-6	1-2,3-4,5-6	5-6(short1+2+3+4)	1-2,3-4	5-6	
T1118CA	1:1:1±5%	250uH Min	1.0uH Max	0.4Ω Max	0.5Ω Max	3000Vrms, 1mA,60S
	CWW@100kHz,1V	Insertion loss @0.5-30MHz	Return loss @0.5-30MHz	IR		
	1-5(short2+3)			500VDC		
	15pF Max			100MΩ MIN		

MECHANICAL DIMENSIONS



• Unless otherwise specified all tolerances are:±0.25mm

SCHEMATICS

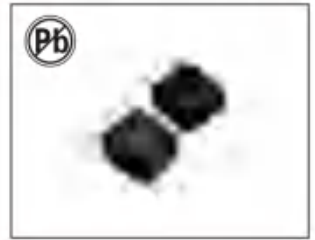


BROADBAND PLC TRANSFORMER

T1134CE

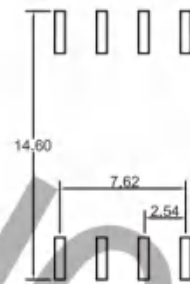
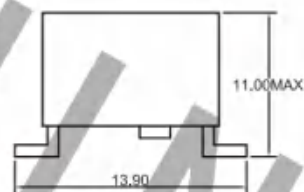
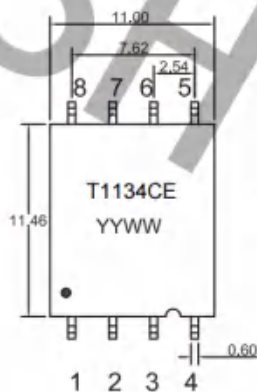
FEATURES:

- DESIGN FOR PLC(POWER LINE COMMUNICATION) APPLICATION.
- ROHS COMPLIANT.
- REINFORCED INSULATION
- OPERATING TEMPERATURE RANGE: -40℃ TO 85℃.

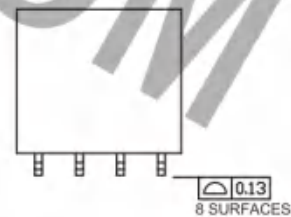


Electrical Specifications @25°C						
Part Number	Turns Ratio @100KHz,0.1V	OCL @100KHz 0.1V	L.L @100KHz 0.1V	DCR @25°C		HI-POT (Pri TO Sec)
	1-2:3-4:5-8	1-2,3-4,5-8	5-8(short1+2+3+4)	1-2,3-4	5-8	
T1134CE	1:1:1±5%	250uH Min	1.0uH Max	0.4Ω Max	0.5Ω Max	3000Vrms, 0.5mA,60S
	CWW@100kHz,1V	Insertion loss @0.5-20MHz	Return loss @0.5-20MHz	IR		
	1-8(short2+3)			500VDC		
	15pF Max			100MΩ MIN		

MECHANICAL DIMENSIONS(unit:mm)

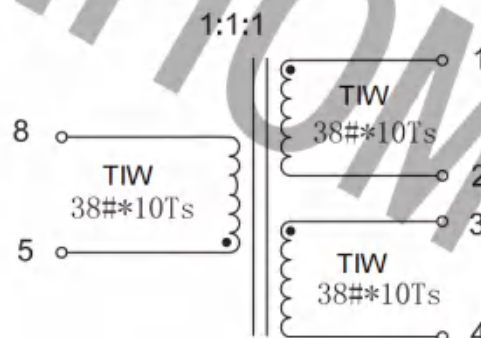


SUGGESTED PAD LAYOUT



• Unless otherwise specified all tolerances are:±0.25 mm

SCHEMATICS

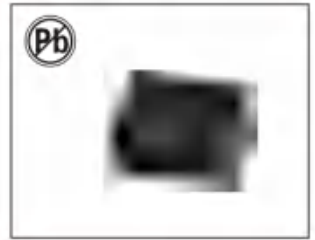


BROADBAND PLC TRANSFORMER

T1150CE

FEATURES:

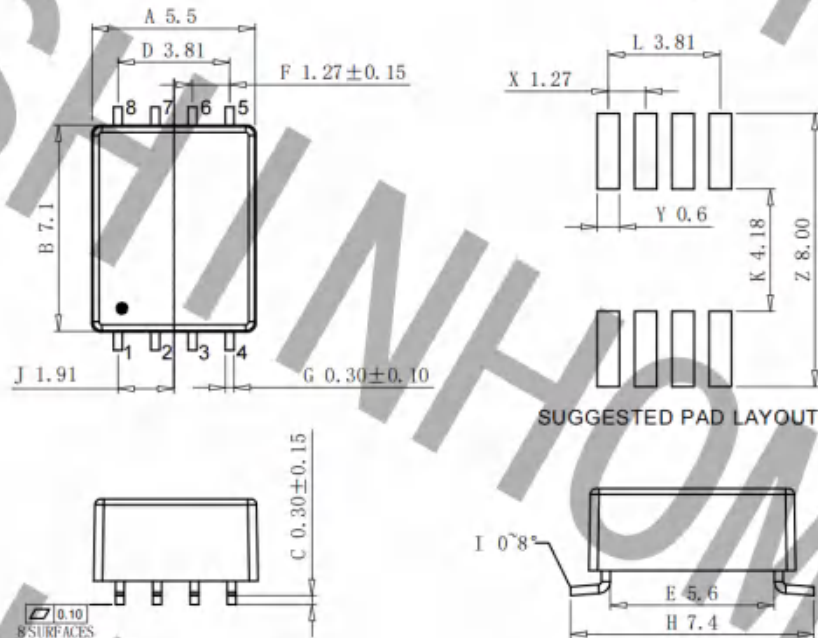
- DESIGN FOR PLC(POWER LINE COMMUNICATION) APPLICATION.
- ROHS COMPLIANT.
- REINFORCED INSULATION
- OPERATING TEMPERATURE RANGE: -40°C TO 85°C.



Electrical Specifications @25°C

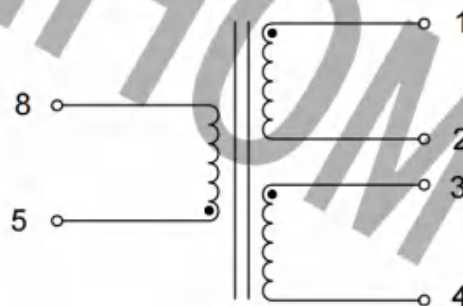
Part Number	Turns Ratio @100KHz,0.1V	OC L @100KHz 0.1V	L.L @100KHz 0.1V	IL(	RL	DCR @25°C	HI-POT (Pri TO Sec)
	1-2:3-4:5-8	1-2;3-4;5-8	5-8(short1+2+3+4)	500KHz~20MHz	1-4(short2+3)	5-8	1500Vrms, 0.5mA,60S
T1150CE	1:1:1±5%	250uH Min	1.0uH Max	1.0dB Max	14dB Min	0.40Ω Max 0.20Ω Max	

MECHANICAL DIMENSIONS(unit:mm)



● Unless otherwise specified all tolerances are:±0.25mm

SCHEMATIC

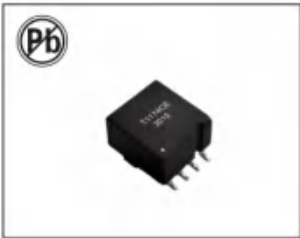


BROADBAND PLC TRANSFORMER

T1174CE

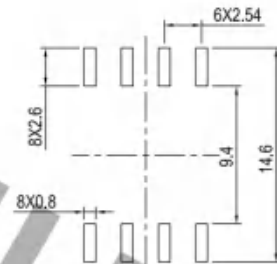
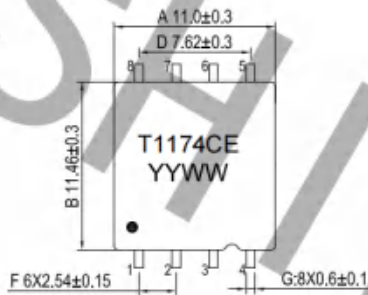
FEATURES:

- DESIGN FOR PLC(POWER LINE COMMUNICATION) APPLICATION.
- ROHS COMPLIANT.
- REINFORCED INSULATION
- OPERATING TEMPERATURE RANGE: -40℃ TO 85℃.

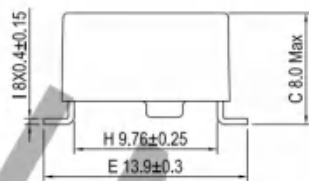


Electrical Specifications @25°C								
Part Number	Turns Ratio (100KHz,1V)	OCL (100KHz,0.1V)	LL (100KHz,0.1V)	C _{ww} (100KHz,0.1V)	DCR	Insertion loss @2-80MHz	Return loss @2-80MHz	Hi-Pot
T1174CE	8-1:2-7:3-6:4-5	8-1,2-7,3-6,4-5	8-1 (tie2-7,3-6,4-5)	1-2 (tie7+3,6+4)	8-1,2-7,3-6,4-5	8-1 To 2-7,3-6,4-5	8-1 To 2-7,3-6,4-5	Pri TO Sec
	1:1:1:1±2%	300uH Min	0.6uH Max	25pF Max	0.5Ω Max	-1.4dB Max	-15dB Min	1500VAC 1.0mA,60S

MECHANICAL DIMENSIONS(unit:mm)

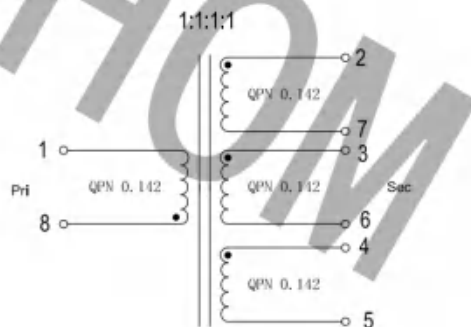


SUGGESTED PAD LAYOUT



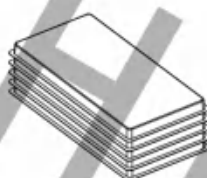
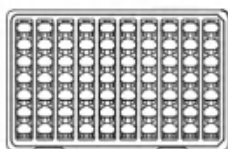
● Unless otherwise specified all tolerances are:±0.25 mm

SCHEMATICS



PACKING:

☐ Tray:

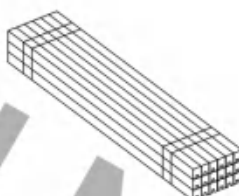


Q'ty

_____ PCS Per Tray

_____ PCS Per Carton

☐ Tube:

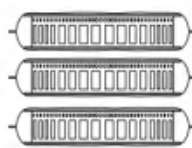
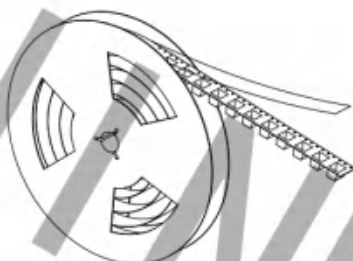


Q'ty

_____ PCS Per Tube

_____ PCS Per Carton

☒ Reel:



Vacuumize Package

Q'ty

400 PCS Per Reel

2800 PCS Per Carton

MOISTURE SENSITIVE LEVEL:

1. Level:1

2.Shelf Life:Unlimited

3.Storage Condition:≤30℃/85% RH

RECOMMENDED SOLDERING PROFILE:

☒ 1. Reflow soldering profile(According to IPC/JEDEC J-STD-020C)

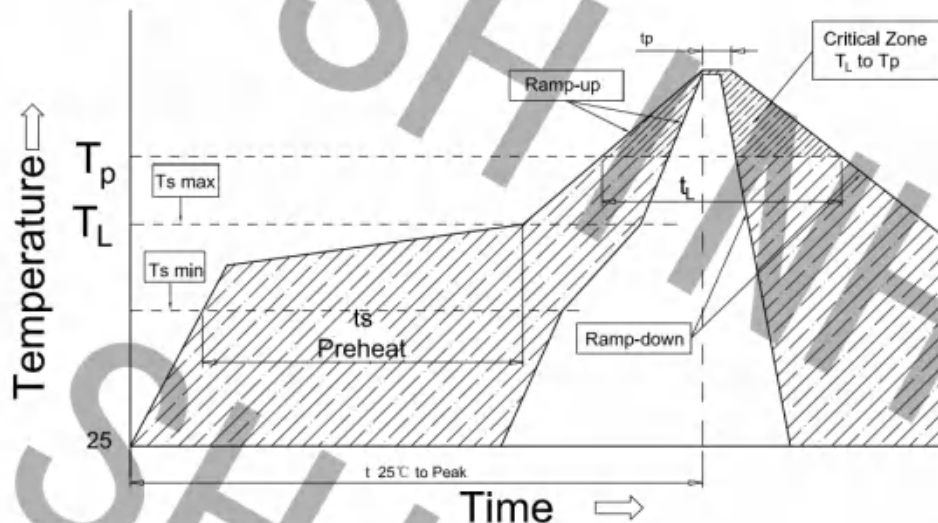


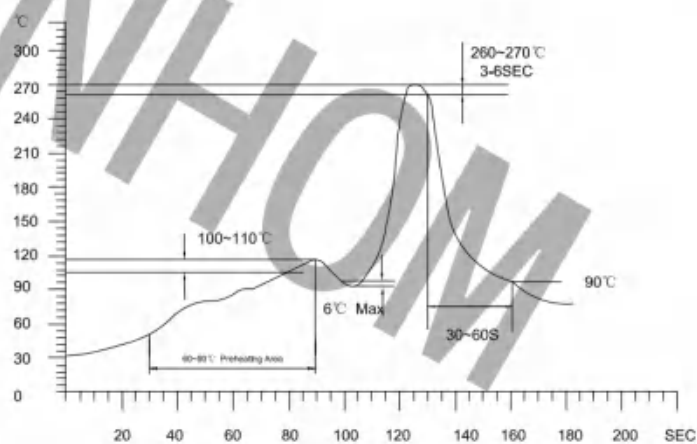
Table 1-1 Classification Reflow Profiles

Profile Feature	Sn-Pb Eutectic Assembly	Pb-Free Assembly
Average Ramp-Up Rate ($T_{s\ max}$ to T_p)	3°C/second max	3°C/second max
Preheat		
-Temperature Min ($T_{s\ min}$)	100°C	150°C
-Temperature Max ($T_{s\ max}$)	150°C	200°C
-Time (t_s to $t_{s\ max}$)	60-120 seconds	60-180 seconds
Time maintained above:	183°C	217°C
-Temperature (T_L)	60-150 seconds	60-150 seconds
-Time (t_L)		
Peak/Classification Temperature(T_p)	See IPC/JEDEC J-STD-020C Table 4-1	See IPC/JEDEC J-STD-020C Table 4-2
Time within 5°C of actual Peak Temperature(t_p)	10-30 seconds	20-40 seconds
Ramp-Down Rate	6°C/second max	6°C/second max
Time 25°C to Peak Temperature	6 minutes max	8 minutes max

Note1: All temperatures refer to top side of the package, measured on the package body surface

- Suggested soldering process: Reflow soldering
- Solder Paste: Sn96.5Ag3.0Cu0.5
- Silkscreen thickness: 0.15mm Min.

☐ 2. Wave soldering profile



DUAL BROADBAND PLC TRANSFORMER

T1175CE

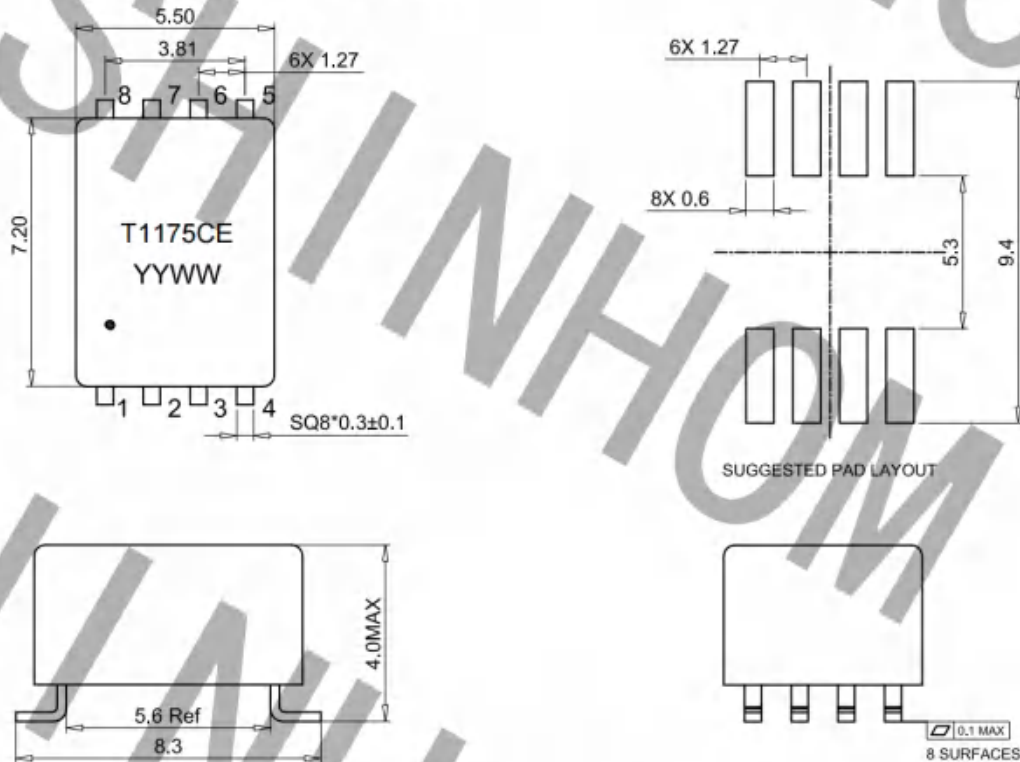


FEATURES:

- DESIGN FOR PLC(POWER LINE COMMUNICATION) APPLICATION.
- ROHS COMPLIANT.
- REINFORCED INSULATION
- OPERATING TEMPERATURE RANGE: -40℃ TO 125℃.

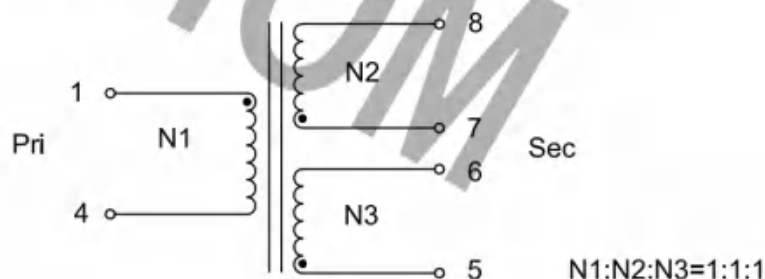
Electrical Specifications @25°C							
Part Number	Turns Ratio @100KHz,1V	OCL @100KHz 0.1V	LK @100KHz 0.1V	DCR @25°C	IL @2MHz-200MHz	RL @2MHz-200MHz	HI-POT (Pri TO Sec)
	1-4:7-8:5-6	1-4,7-8,5-6	1-4(Short 5-6-7-8)	1-4,7-8,5-6	1-4 To 5-6 1-4 To 7-8	1-4 To 5-6 1-4 To 7-8	1500Vrms, 1mA,2S
T1175CE	1:1:1±5%	28uH Min	0.2uH Max	120mΩ Max	2.0dB Max	14.0dB Min	

MECHANICAL DIMENSIONS(unit:mm)



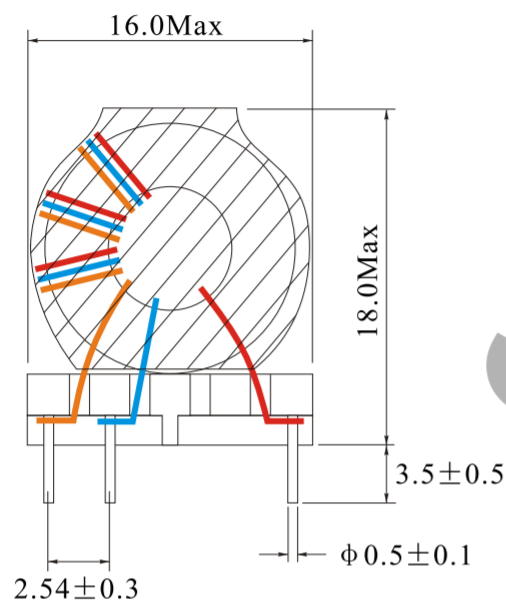
• Unless otherwise specified all tolerances are:±0.25mm

SCHEMATICS

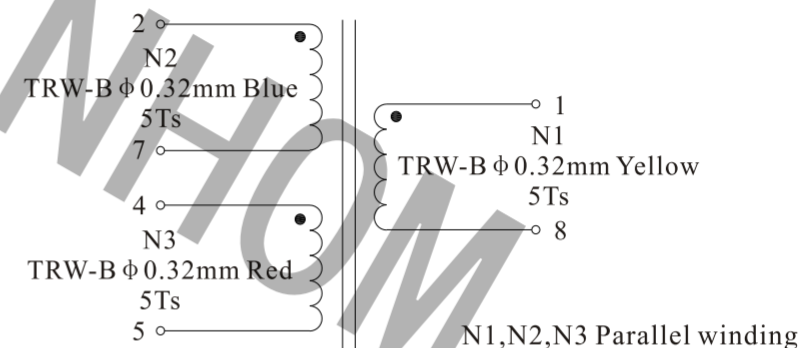


Rev.	Description	Date
A0	New release	2023.05.10

1. PHYSICAL CHARACTERISTICS (mm)



2. ELECTRICAL SCHEMATIC



3. ELECTRICAL SPECIFICATIONS

Turns ratio: (1-8):(2-7):(4-5)=1:1:1

Inductance(each winding): 10.9uH±30%@1.0KHz, 1V

DCR(each winding): 30mΩ Max

Hi-Pot: 3000Vac, 5mA, 60S Coil to Core

5600Vac, 5mA, 60S Pin1, 2, 7, 8 to Pin 4, 5

Operating temperature: -40°C to +105°C

Sotrage temperature: -20°C to +65°C

NAME:	Isolation transformers for broadband PLC system		
CUSTOMER P/N:		DATE:	2023-05-10
SHINHOM P/N:	T1246	REV: A0	PAGE
DRAWN BY	CHECKED BY	APPROVE BY	

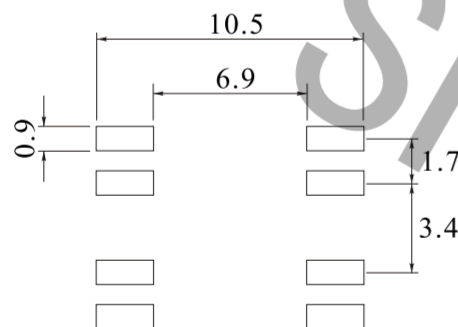
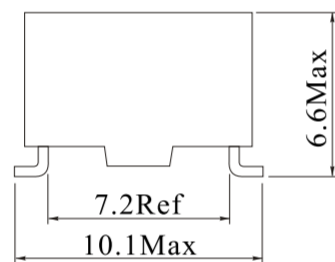
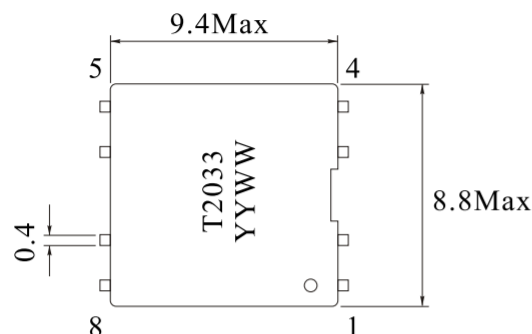


SHINHOM
SHAANXISHINHOM ENTERPRISE CO LTD

The Document property belong
to SHINHOM & is not allowed to be
duplicated without authorization

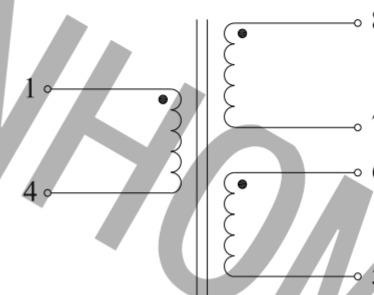
Rev.	Description	Date
A0	New release	2023.05.10

1. PHYSICAL CHARACTERISTICS (mm)



Land pattern

2. ELECTRICAL SCHEMATIC



3. ELECTRICAL SPECIFICATIONS

Turns ratio: (1-4):(8-7)=1:1

(1-4):(6-5)=3:1

Inductance(1-4): 14.0uH Min@10KHz,0.1V

LK(1-4): 225nH Max@1.0MHz,0.1V, tie other pins

Interwinding capacitance(1-8): 6pF Max, tie 7-6@100KHz,0.1V

DCR(1-4): 0.35 Ω Max

(8-7) 0.3 Ω Max

(6-5) 0.15 Ω Max

Hi-Pot: 3750Vac,0.5mA,1S Pin1-8, tie 7-6

Operating temperature: -40°C to +105°C

Sotrage temperature: -20°C to +65°C

NAME:	Isolation transformers for broadband PLC system		
CUSTOMER P/N:		DATE:	2023-05-10
SHINHOM P/N:	T2033	REV: A0	PAGE
DRAWN BY	CHECKED BY	APPROVE BY	

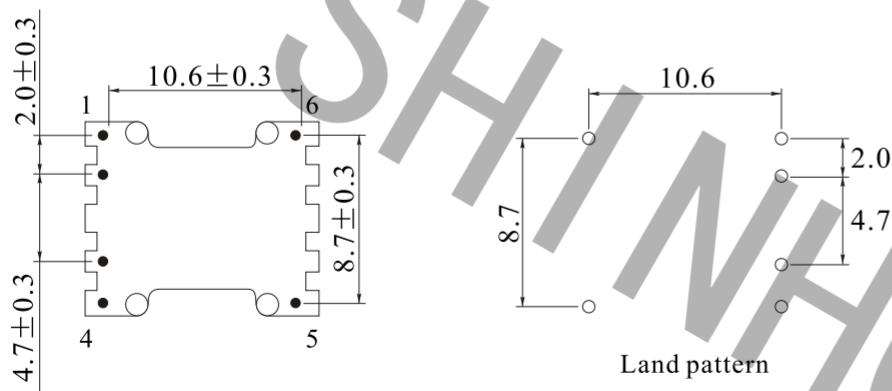
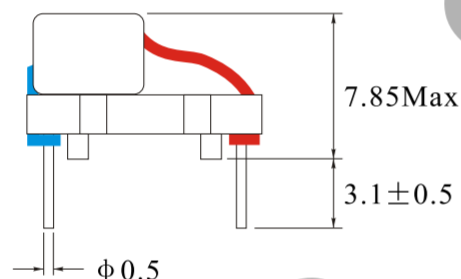
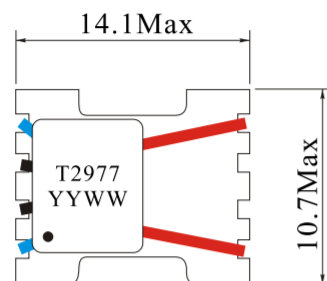


SHINHOM
SHAANXISHINHOM ENTERPRISE CO LTD

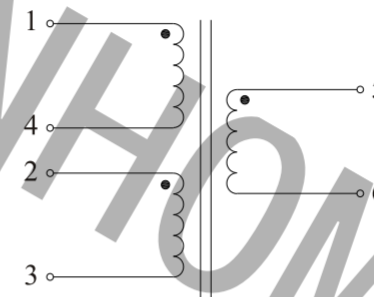
The Document property belong to SHINHOM & is not allowed to be duplicated without authorization

Rev.	Description	Date
A0	New release	2023.05.10

1. PHYSICAL CHARACTERISTICS (mm)



2. ELECTRICAL SCHEMATIC



3. ELECTRICAL SPECIFICATIONS

Turns ratio: (2-3):(1-4):(5-6)=1:5:4±5%@50KHz

Inductance(2-3): 1.3uH Typ@2MHz,0.1V

(1-4): 34.7uH Typ@2MHz,0.1V

(5-6): 22.2uH Typ@2MHz,0.1V

LK(2-3): 15nH Typ@2MHz,0.1V, Short other pins

Hi-Pot: 3750Vac,1mA,2S between windings

Operating temperature: -40°C to +105°C

Sotrage temperature: -20°C to +65°C

NAME:	Isolation transformers for broadband PLC system		
CUSTOMER P/N:		DATE:	2023-05-10
SHINHOM P/N:	T2977	REV: A0	PAGE
DRAWN BY	CHECKED BY	APPROVE BY	

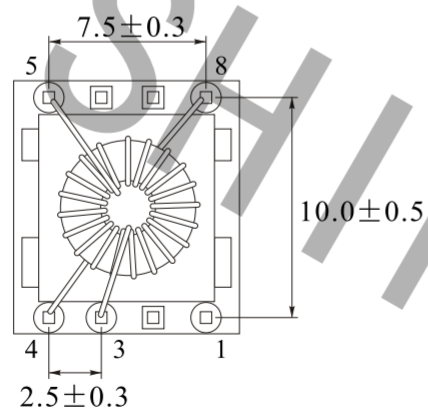
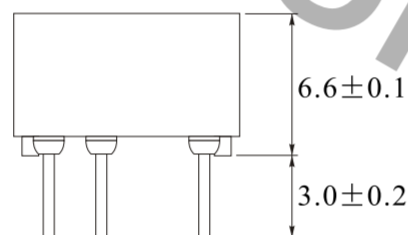
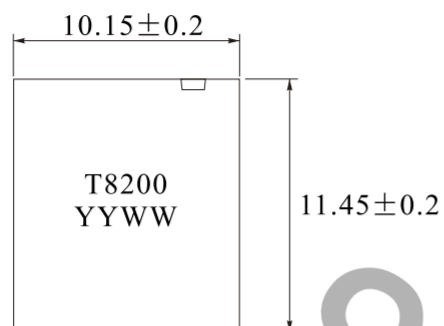


SHINHOM
SHAANXISHINHOM ENTERPRISE CO LTD

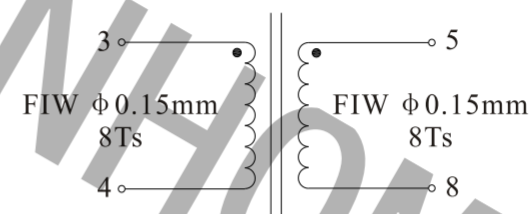
The Document property belong to SHINHOM & is not allowed to be duplicated without authorization

Rev.	Description	Date
A0	New release	2023.12.29

1. PHYSICAL CHARACTERISTICS (mm)



2. ELECTRICAL SCHEMATIC



3. ELECTRICAL SPECIFICATIONS

Turns ratio: (3-4):(5-8)=1:1

Inductance(3-4): 20.0uH Min@2.5MHz,0.1V

LK(3-4): 0.3uH Max@2.5MHz,0.1V, tie 5-8

Interwinding capacitance(4-5): 5pF Max@2.5MHz,0.1V

DCR(3-4): 96mΩ Max

(5-8) 96mΩ Max

Hi-Pot: 5000Vac,1mA,60S

Operating temperature: -40°C to +75°C

(Including self-temp. rise)

Sotrage temperature: -40°C to +85°C

NAME:	Isolation transformers for broadband PLC system		
CUSTOMER P/N:		DATE:	2023-12-29
SHINHOM P/N:	T8200	REV: A0	PAGE
DRAWN BY	CHECKED BY	APPROVE BY	

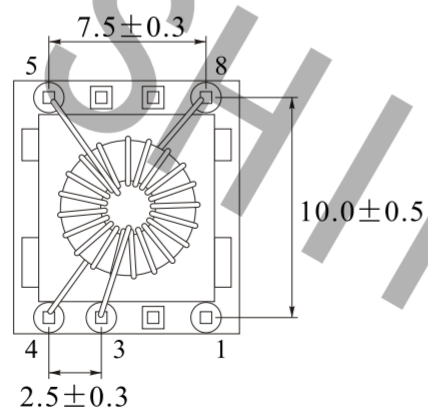
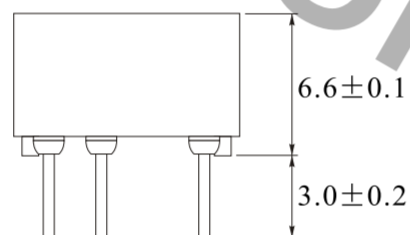
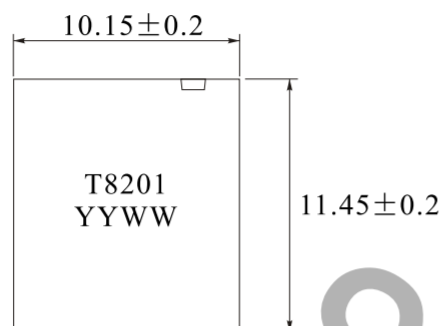


SHINHOM
SHAANXISHINHOM ENTERPRISE CO LTD

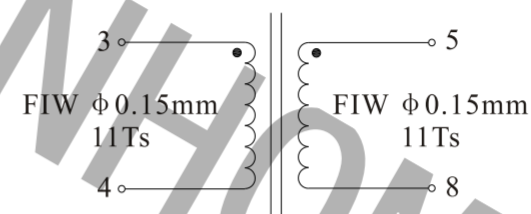
The Document property belong
to SHINHOM & is not allowed to be
duplicated without authorization

Rev.	Description	Date
A0	New release	2023.12.29

1. PHYSICAL CHARACTERISTICS (mm)



2. ELECTRICAL SCHEMATIC



3. ELECTRICAL SPECIFICATIONS

Turns ratio: (3-4):(5-8)=1:1

Inductance(3-4): 200uH Min@100KHz,0.1V

LK(3-4): 1.0uH Max@100KHz,0.1V, tie 5-8

DCR(3-4): 160m Ω Max

(5-8) 160m Ω Max

Hi-Pot: 5000Vac,1mA,60S

Operating temperature: -40°C to $+75^{\circ}\text{C}$

(Including self-temp. rise)

Storage temperature: -40°C to $+85^{\circ}\text{C}$

NAME:	Isolation transformers for broadband PLC system		
CUSTOMER P/N:		DATE:	2023-12-29
SHINHOM P/N:	T8201	REV: A0	PAGE
DRAWN BY	CHECKED BY	APPROVE BY	

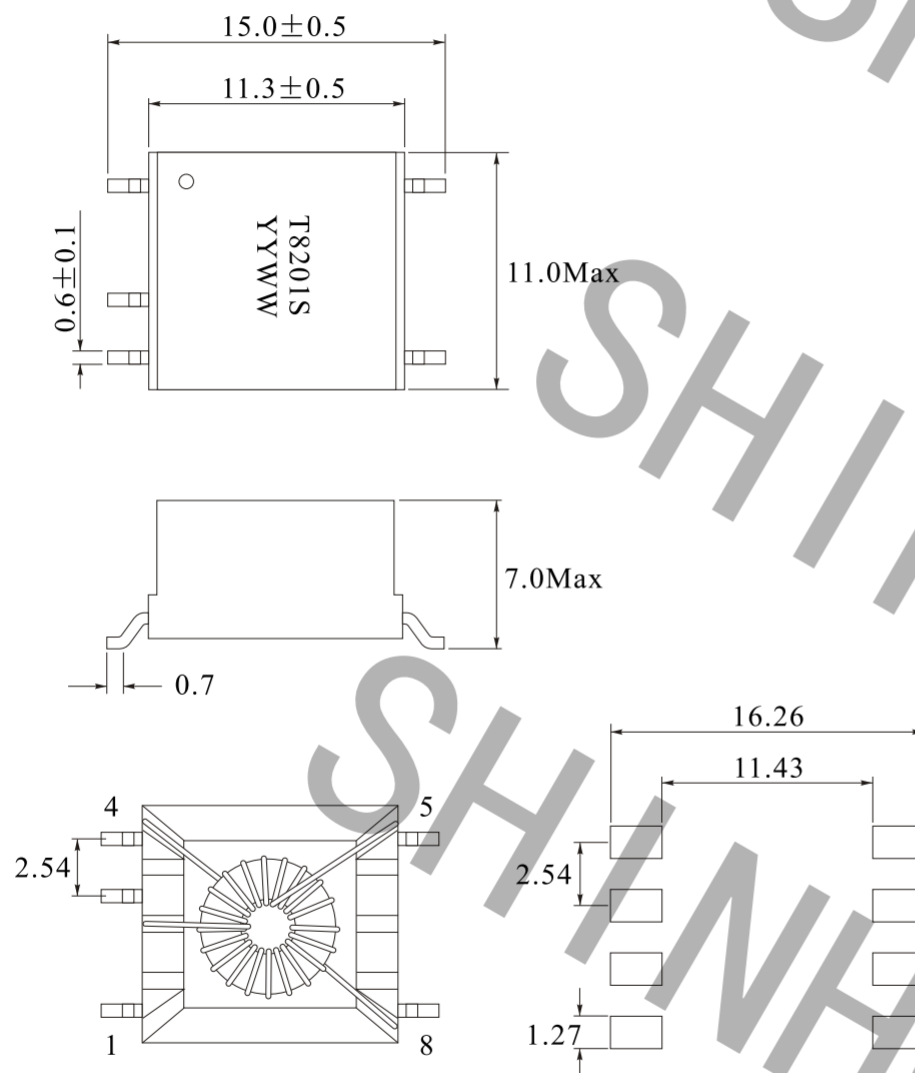


SHINHOM
SHAANXISHINHOM ENTERPRISE CO LTD

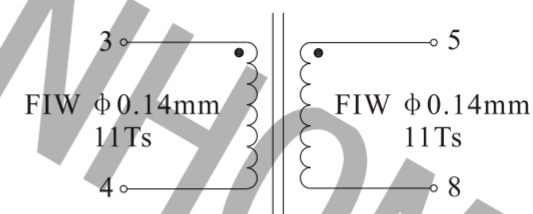
The Document property belong to SHINHOM & is not allowed to be duplicated without authorization

Rev.	Description	Date
A0	New release	2023.12.29

1. PHYSICAL CHARACTERISTICS (mm)



2. ELECTRICAL SCHEMATIC



3. ELECTRICAL SPECIFICATIONS

Turns ratio: (3-4):(5-8)=1:1

Inductance(3-4): 200uH Min@100KHz,0.1V

LK(3-4): 1.0uH Max@100KHz,0.1V, tie 5-8

DCR(3-4): 134mΩ Max

(5-8) 134mΩ Max

Hi-Pot: 5000Vac,1mA,60S

Operating temperature: -40°C to +75°C

(Including self-temp. rise)

Sotrage temperature: -40°C to +85°C

NAME:	Isolation transformers for broadband PLC system		
CUSTOMER P/N:		DATE:	2023-12-29
SHINHOM P/N:	T8201S	REV: A0	PAGE
DRAWN BY	CHECKED BY	APPROVE BY	



SHINHOM
SHAANXISHINHOM ENTERPRISE CO LTD

The Document property belong
to SHINHOM & is not allowed to be
duplicated without authorization

BROADBAND PLC TRANSFORMER

T953DG

FEATURES:

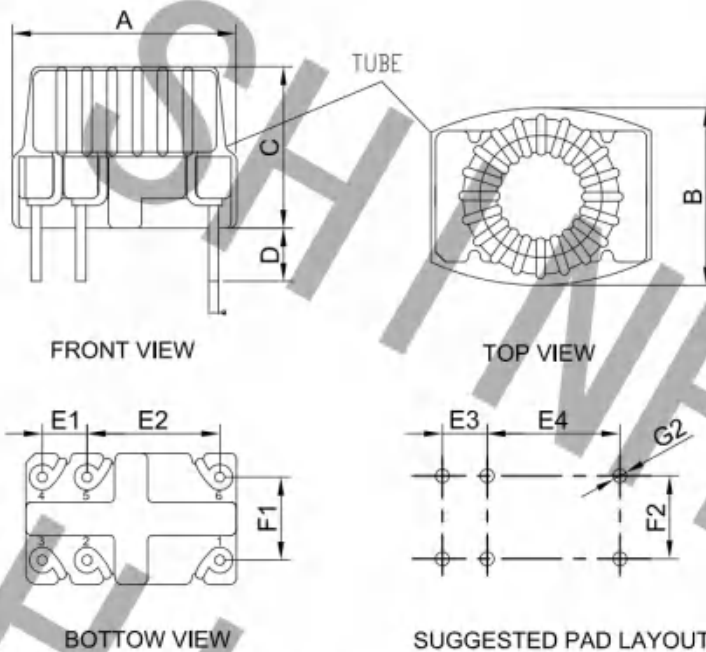
- DESIGN FOR PLC(POWER LINE COMMUNICATION) APPLICATION.
- ROHS COMPLIANT.
- REINFORCED INSULATION
- OPERATING TEMPERATURE RANGE: -40°C TO 85°C.



Electrical Specifications @25°C

Part Number	OCL @10KHz,0.25V	OCL @10KHz,0.25V	DCR @25°C	DCR @25°C	Turns Ration @1kHz,0.25V	Hi-Pot
	1-6=2-5	3-4	1-6=2-5	3-4	1-6:2-5:3-4	1-6 TO 2-5,3-4
T953DG	93-209uH	23-52uH	120mΩ Max	80mΩ Max	1:1:0.5±3%	3000Vac,3mA,60S,60Hz

MECHANICAL



DIM	MILLIMETERS (Units:mm)
A	14.0 Max
B	12.5 Max
C	11.5 Max
D	3.0±0.5
E1	2.7±0.5
E2	8.0±0.3
F1	5.0±0.5
G1	0.6±0.1
E3	2.7 Typ
E4	8.0 Typ
F2	5.0 Typ
G2	1.2 Typ

SCHEMATICS

