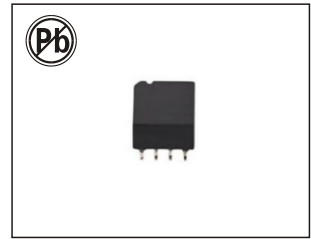


ISOLATION TRANSFORMERS FOR NARROWBAND PLC SYSTEMS

GT70 Series

FEATURES:

- Excellent transmission characteristics
- High mains current capability, low THD
- Matching with all leading IC (modulation methods FSK, DCSK and OFDM)
- Compliant with all PLC standards (HomePlug, CENELEC ...)
- Compact designs in THT and SMT housings
- Insulation according to IEC 60950, UL 1950 and IEC 61558



DESCRIPTION:

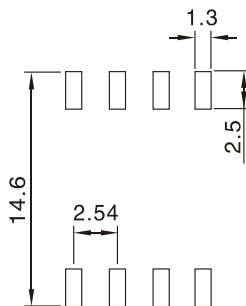
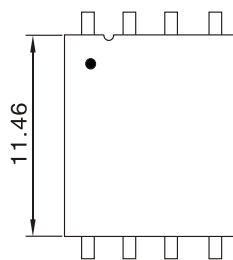
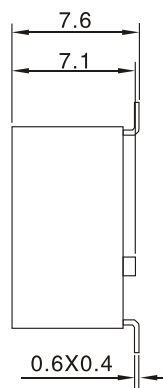
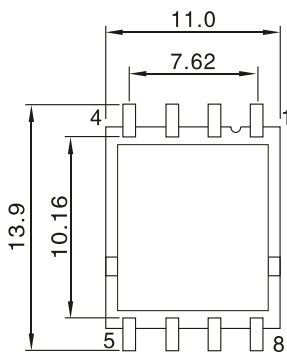
For narrowband PLC systems where the operating frequency may be up to 500 kHz isolation transformers based on amorphous or nanocrystalline offer excellent transmission characteristics, high robustness against EMC interferences and safe galvanic insulation.

STANDARD SPECIFICATION:

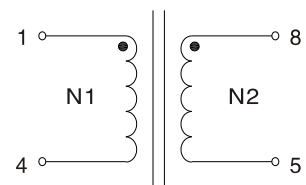
Part Number	Turns ratio	Sec. current (mA)Max	Sec. Inductance (mH)Min	Sec. Leakage inductance (Short Pri.) (uH)	Capacitance Pri to Sec (pF)Typ.	Sec. DCR (Ω)Typ.	Insulation voltage Pri. to Sec. (V)	Hi-Pot (kV)
GT7001	1:1:2	100	0.7	1	40	0.5	400	4.0
GT7002	1:1:2	35	0.88	0.4	30	0.1	400	3.0
GT7003	1:1	30	1.4	0.3	25	0.2	250	5.5
GT7004	1:1	15	2.5	0.9	50	0.3	250	3.0
GT7005	2:1	30	1.4	0.5	50	0.12	400	3.0
GT7006	1.68:1	50	0.43	6	17	0.17	100	1.5
GT7007	1:1:2	100	0.7	1	40	0.5	400	3.0
GT7008	1:4:4	30	1.56	1	25	0.15	400	3.0

PHYSICAL CHARACTERISTICS

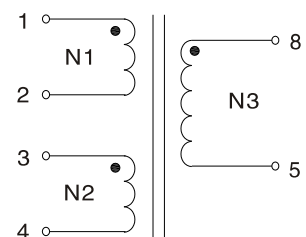
TECHNICAL INFORMATION:



Winding 1



Winding 2



PUSH-PULL ISOLATION TRANSFORMER ST764 SERIES



Features

- Low profile and small size
- Designed to comply with IEC 62368
- RoHS compliant

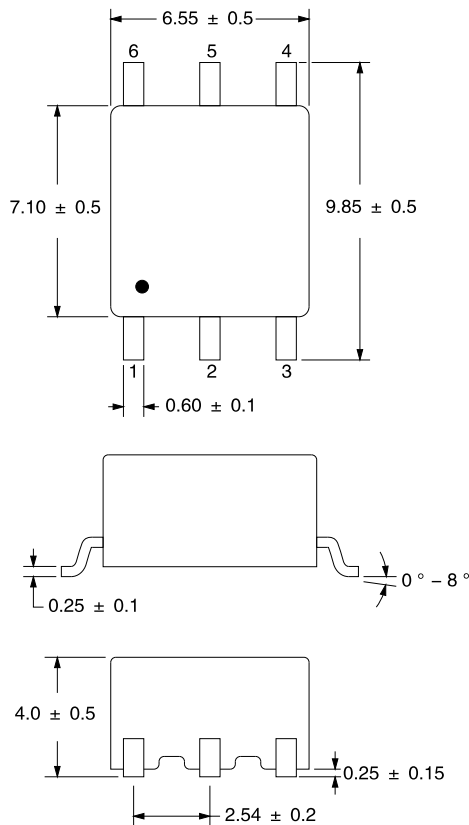
Applications

- Isolated RS-485/RS-232 power supplies
- Industrial automation
- AC motor drives
- Smart metering
- Solar inverters

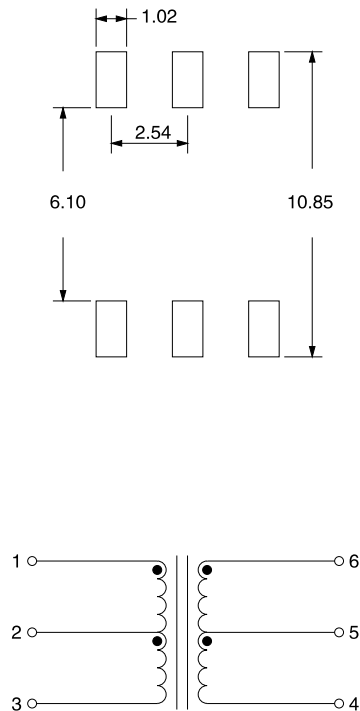
ELECTRICAL CHARACTERISTICS:@25°C

Part Number	Primary Inductance @ 100 kHz / 0.1 V ± 10%(uH)	Turns Ratio	Volt Microseconds Max. V-uS	DCR Max. (m Ω)	DCR Max. (m Ω)	Isolation Voltage (Volts RMS)
	(1-3)	(1-3) : (6-4)	(1-3)	(1-3)	(6-4)	(1-3) : (6-4)
ST764117	475	1:1.7	11	650	900	3100
ST764120	475	1:2	11	650	1000	3100
ST764111	475	1:1.1	11	650	700	3100
ST764113	475	1:1.3	11	650	800	3100

PHYSICAL CHARACTERISTICS:(mm)

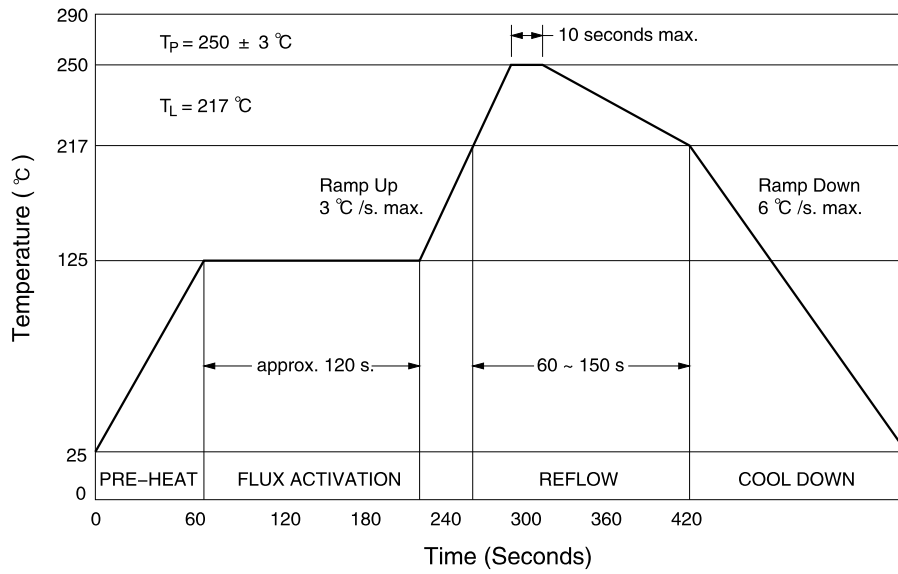


LAYOUT:



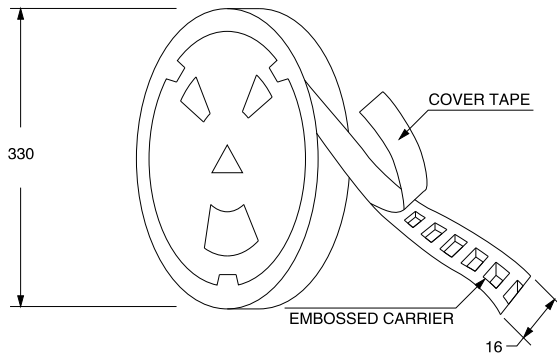
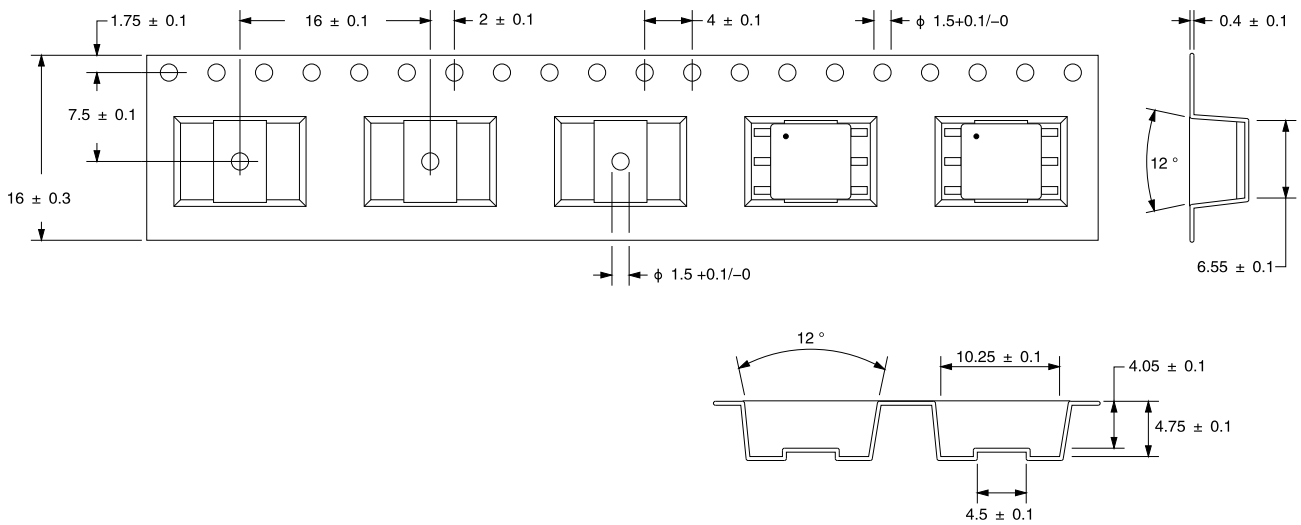
Operating Temperature-40 °C to +125 °C
 Storage Temperature (with packaging)-10 °C to +40 °C
 Storage Temperature (without packaging)-40 °C to +125 °C
 Current Rating350 mArms
 HI-POT Pri / Sec3100 VAC / 1 mA / 2 s
 Level of Insulation.....Functional insulation for a working voltage of 400 Vrms
 per IEC 62368

SOLDERING PROFILE:



Time within 5 °C of actual Peak Temperature (tp)20 ~ 40 s.
 Ts min.150 °C
 Ts max.200 °C
 Ts min. to Ts max.60 ~ 180 s.
 25 °C to Peak Temperature8 minutes max.

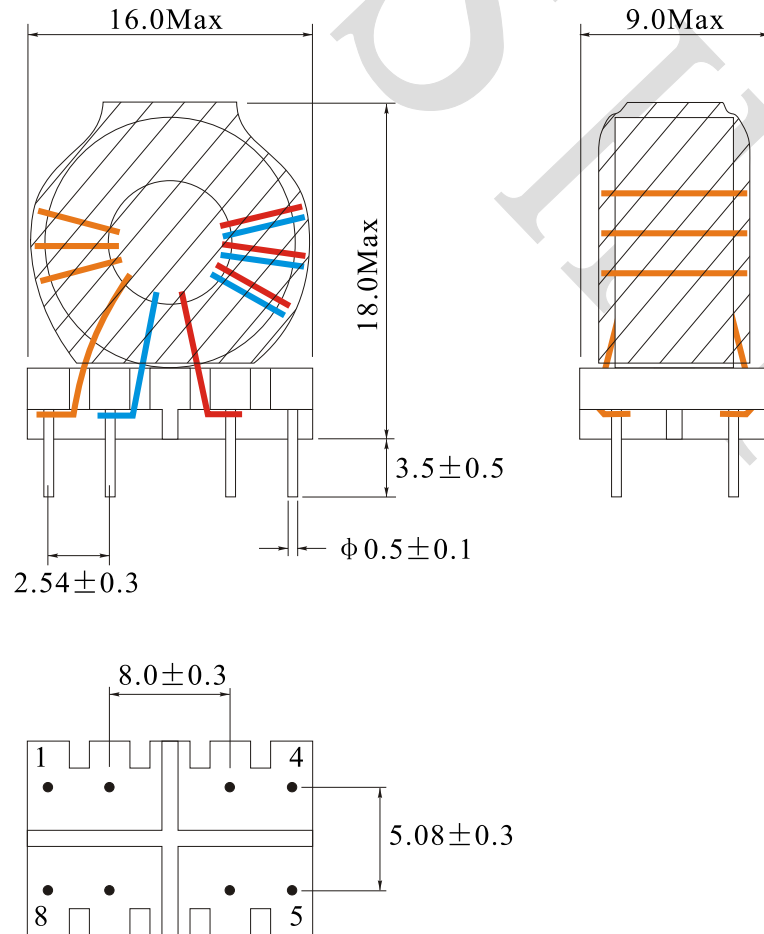
PACKAGING SPECIFICATIONS:(mm)



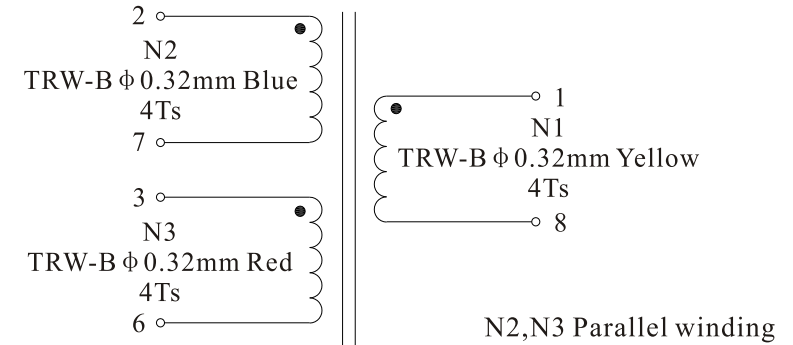
800 pcs. per 13-inch reel

Rev.	Description	Date
A0	New release	2023.05.10

1. PHYSICAL CHARACTERISTICS (mm)



2. ELECTRONICAL SCHEMATIC



3. ELECTRONICAL 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 Pin1,2,7,8 to Pin 3,6

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

Storage temperature: -20°C to +65°C

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

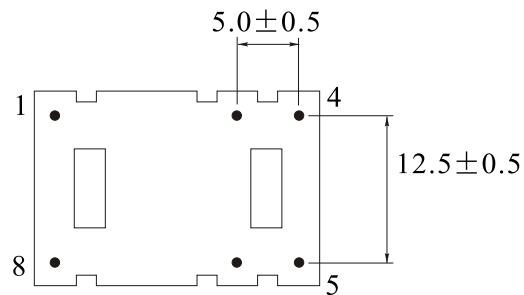
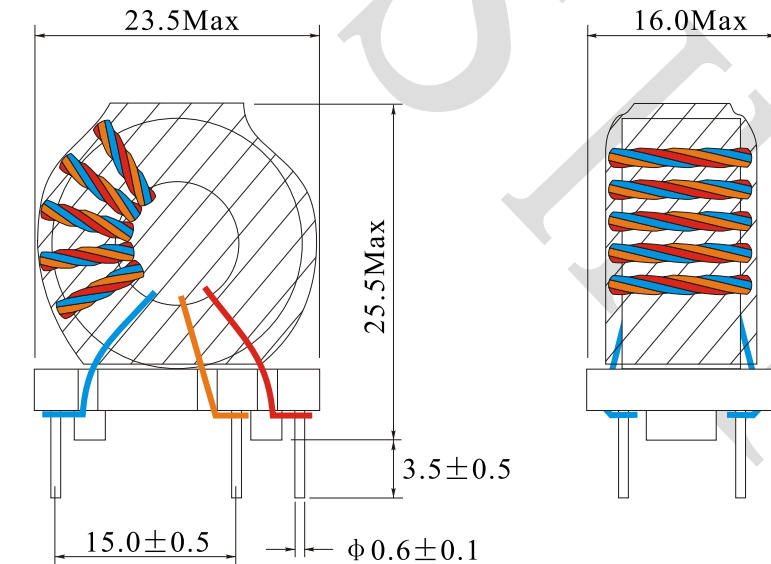


SHINHOM
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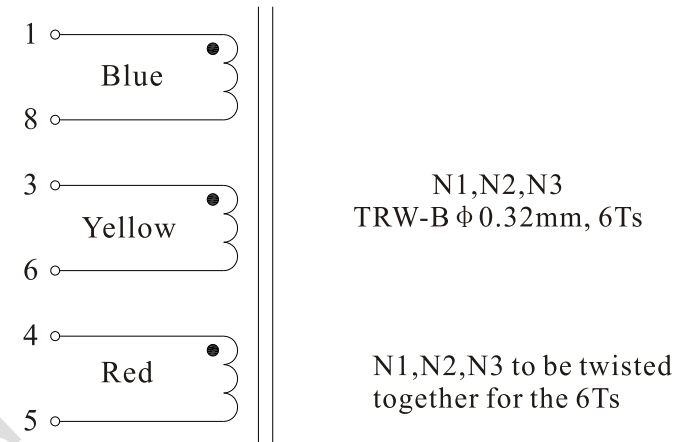
The Document property belong to SHINHOM & is not allowed to be duplicated without authorization

Rev.	Description	Date
A0	New release	2023.05.10

1. PHYSICAL CHARACTERISTICS (mm)



2. ELECTRICAL SCHEMATIC



3. ELECTRICAL SPECIFICATIONS

Turns ratio: (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°C to +105°C

Storage temperature: -20°C to +65°C

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

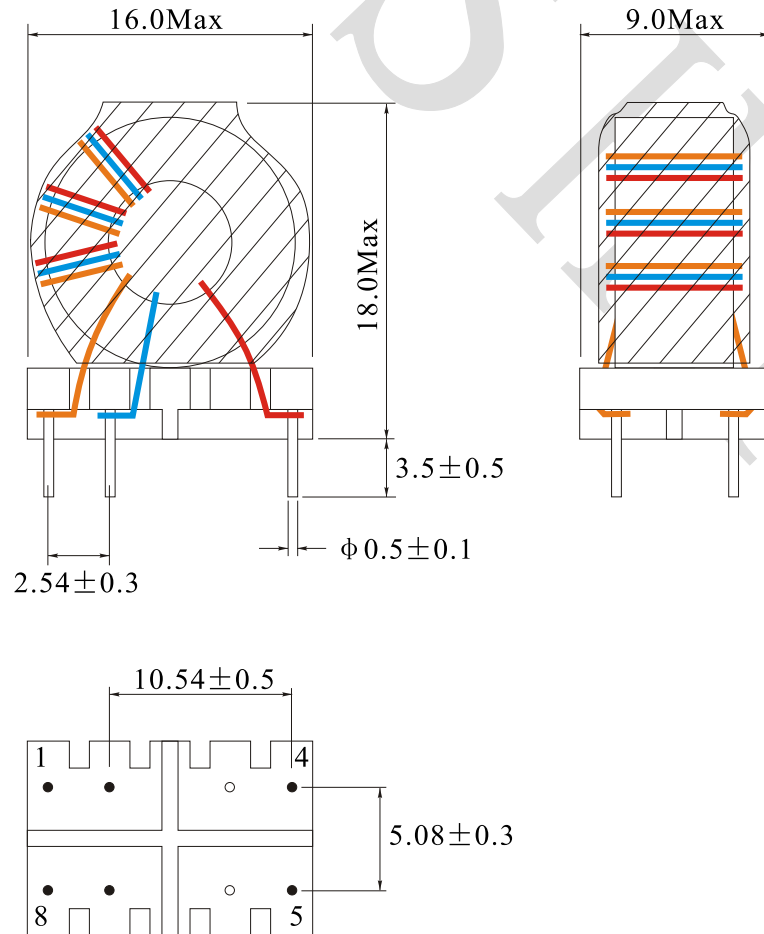


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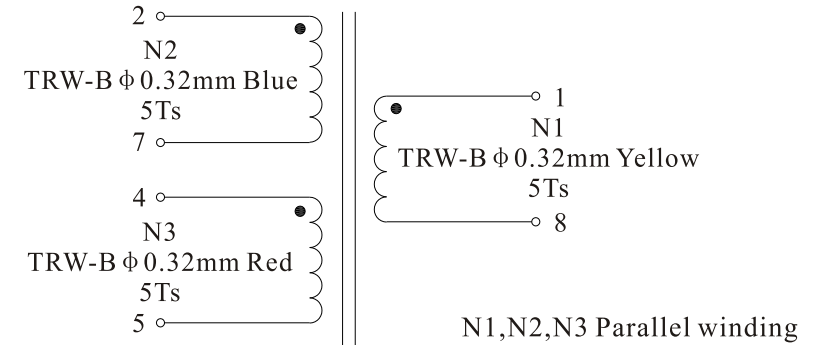
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Rev.	Description	Date
A0	New release	2023.05.10

1. PHYSICAL CHARACTERISTICS (mm)



2. ELECTRONICAL SCHEMATIC



3. ELECTRONICAL 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

Storage temperature: -20°C to +65°C

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

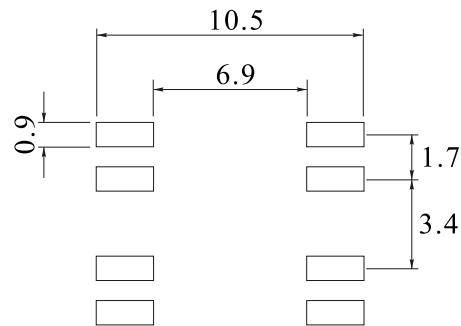
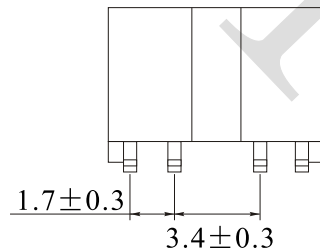
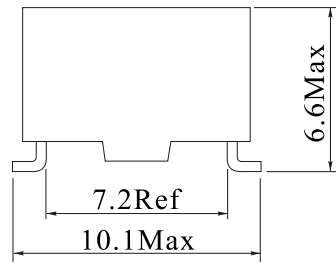
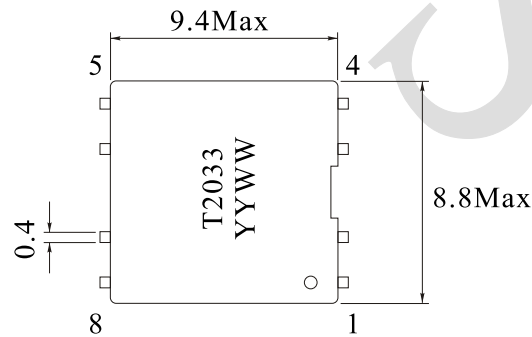


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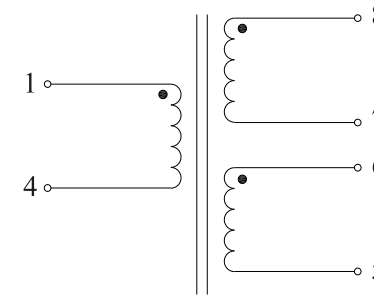
Rev.	Description	Date
A0	New release	2023.05.10

1. PHYSICAL CHARACTERISTICS (mm)



Land pattern

2. ELECTRONICAL SCHEMATIC



3. ELECTRONICAL 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 narrowband PLC system		
CUSTOMER P/N:		DATE:	2023-05-10
SHINHOM P/N:	T2033	REV: A0	PAGE
DRAWN BY	CHECKED BY	APPROVE BY	

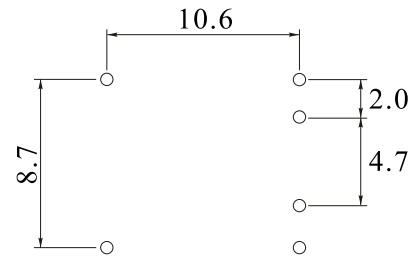
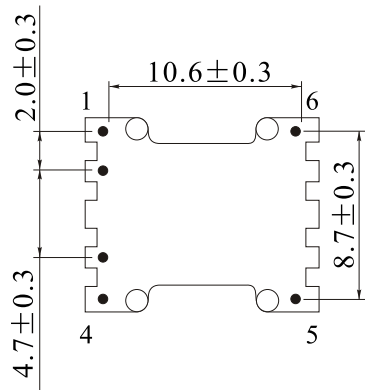
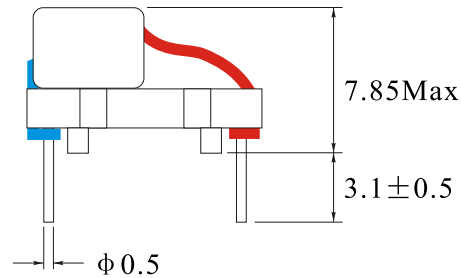
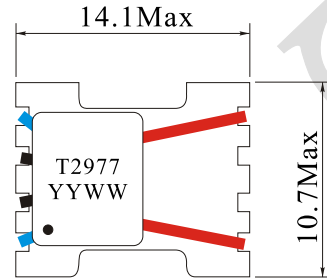


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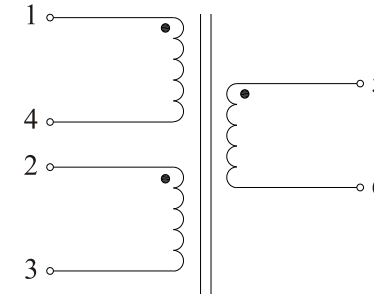
Rev.	Description	Date
A0	New release	2023.05.10

1. PHYSICAL CHARACTERISTICS (mm)



Land pattern

2. ELECTRONICAL SCHEMATIC



3. ELECTRONICAL 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

Storage temperature: -20°C to +65°C

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



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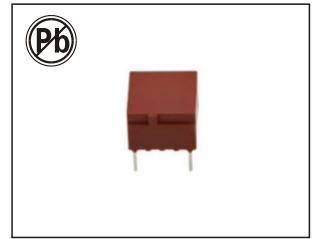
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ISOLATION TRANSFORMERS FOR NARROWBAND PLC SYSTEMS

T4021 Series

FEATURES:

- Excellent transmission characteristics
- High mains current capability, low THD
- Matching with all leading IC (modulation methods FSK, DCSK and OFDM)
- Compliant with all PLC standards (HomePlug, CENELEC ...)
- Compact designs in THT and SMT housings
- Insulation according to IEC 60950, UL 1950 and IEC 61558



DESCRIPTION:

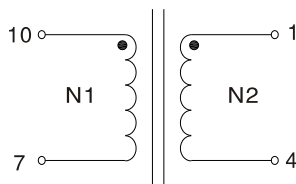
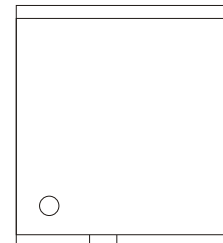
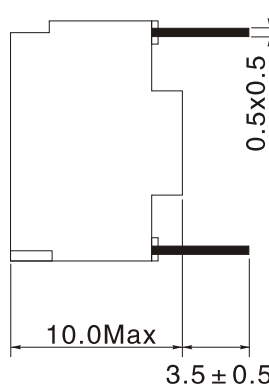
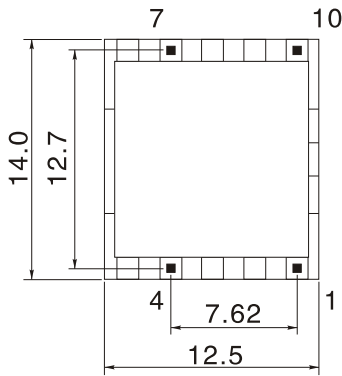
For narrowband PLC systems where the operating frequency may be up to 500 kHz isolation transformers based on amorphous or nanocrystalline offer excellent transmission characteristics, high robustness against EMC interferences and safe galvanic insulation.

STANDARD SPECIFICATION:

Part Number	Turns ratio	Sec. current (mA)Max	Sec. Inductance (mH)Min	Sec. Leakage inductance (Short Pri.) (uH)	Capacitance Pri to Sec (pF)Typ.	Sec. DCR (Ω)Typ.	Insulation voltage Pri. to Sec. (V)	Hi-Pot (kV)
T4021-142	1.68:1	50	0.43	6	17	0.17	100	1.5
T4021-144	1.37:1	120	0.43	1	35	0.22	450	5.1
T4021-145	1.7:1	130	0.34	1	30	0.2	450	5.1
T4021-146	1:1	100	0.68	1	35	0.26	450	5.1

PHYSICAL CHARACTERISTICS

TECHNICAL INFORMATION:



Notes:

- Electrical specification at 25°C
- Testing: LCR Bridge measured @ 1KHz 0.1V HP 4284A (Equivalent acceptable)
- RDC: QuadTech 1880 Milliohmmeter
- Operating temperature rang: -40°C to +125°C
- Storage temperature rang: -40°C to +125°C

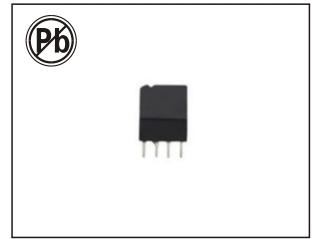
Note: All specifications subject to change without notice.

ISOLATION TRANSFORMERS FOR NARROWBAND PLC SYSTEMS

T4031 Series

FEATURES:

- Excellent transmission characteristics
- High mains current capability, low THD
- Matching with all leading IC (modulation methods FSK, DCSK and OFDM)
- Compliant with all PLC standards (HomePlug, CENELEC ...)
- Compact designs in THT and SMT housings
- Insulation according to IEC 60950, UL 1950 and IEC 61558



DESCRIPTION:

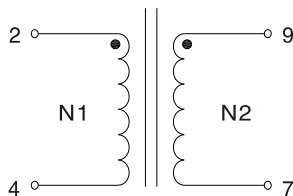
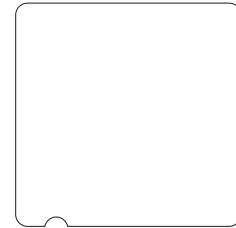
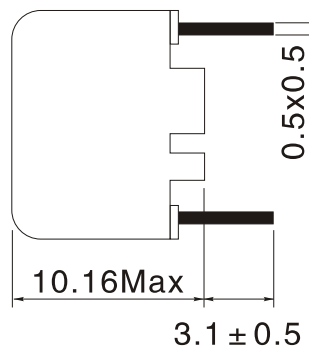
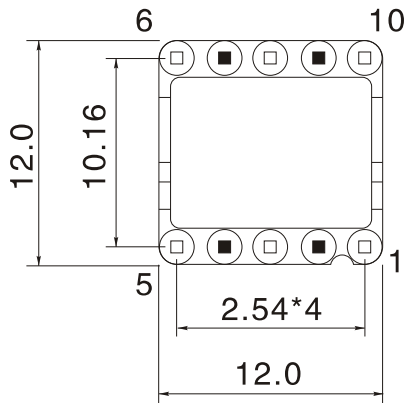
For narrowband PLC systems where the operating frequency may be up to 500 kHz isolation transformers based on amorphous or nanocrystalline offer excellent transmission characteristics, high robustness against EMC interferences and safe galvanic insulation.

STANDARD SPECIFICATION:

Part Number	Turns ratio	Sec. current (mA)Max	Sec. Inductance (mH)Min	Sec. Leakage inductance (Short Pri.) (uH)	Capacitance Pri to Sec (pF)Typ.	Sec. DCR (Ω)Typ.	Insulation voltage Pri. to Sec. (V)	Hi-Pot (kV)
T4031-009	2:1	5	1.0	0.17	17	0.08	300	4.2

PHYSICAL CHARACTERISTICS

TECHNICAL INFORMATION:



Notes:

Electrical specification at 25°C

Testing: LCR Bridge measured @ 1KHz 0.1V HP 4284A

(Equivalent acceptable)

RDC: QuadTech 1880 Milliohmmeter

Operating temperature rang: -40°C to +125°C

Storage temperature rang: -40°C to +125°C

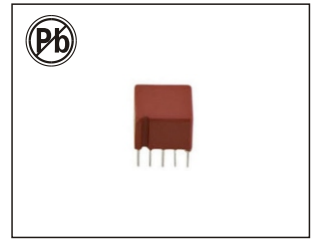
Note: All specifications subject to change without notice.

ISOLATION TRANSFORMERS FOR NARROWBAND PLC SYSTEMS

T4081 Series

FEATURES:

- Excellent transmission characteristics
- High mains current capability, low THD
- Matching with all leading IC (modulation methods FSK, DCSK and OFDM)
- Compliant with all PLC standards (HomePlug, CENELEC ...)
- Compact designs in THT and SMT housings
- Insulation according to IEC 60950, UL 1950 and IEC 61558



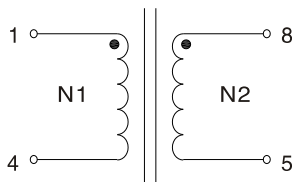
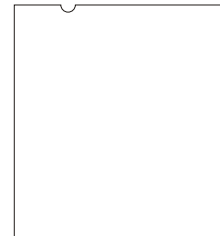
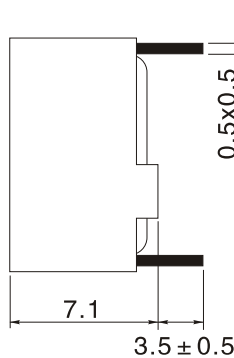
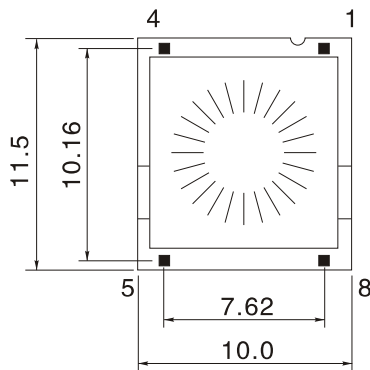
DESCRIPTION:

For narrowband PLC systems where the operating frequency may be up to 500 kHz isolation transformers based on amorphous or nanocrystalline offer excellent transmission characteristics, high robustness against EMC interferences and safe galvanic insulation.

STANDARD SPECIFICATION:

Part Number	Turns ratio	Sec. current (mA)Max	Sec. Inductance (mH)Min	Sec. Leakage inductance (Short Pri.) (uH)	Capacitance Pri to Sec (pF)Typ.	Sec. DCR (Ω)Typ.	Insulation voltage Pri. to Sec. (V)	Hi-Pot (kV)
T4081-004	1:1	30	1.4	0.8	25	0.2	400	4.0
T4081-007	2:1	35	0.9	0.3	25	0.11	250	5.5
T4081-008	1.36:1	32	1.2	0.4	25	0.13	250	5.5

PHYSICAL CHARACTERISTICS



Notes:

- Electrical specification at 25°C
- Testing: LCR Bridge measured @ 1KHz 0.1V HP 4284A (Equivalent acceptable)
- RDC: QuadTech 1880 Milliohm meter
- Operating temperature rang: -40°C to +125°C
- Storage temperature rang: -40°C to +125°C

Note: All specifications subject to change without notice.

ISOLATION TRANSFORMERS FOR NARROWBAND PLC SYSTEMS

T4085 Series

FEATURES:

- Excellent transmission characteristics
- High mains current capability, low THD
- Matching with all leading IC (modulation methods FSK, DCSK and OFDM)
- Compliant with all PLC standards (HomePlug, CENELEC ...)
- Compact designs in THT and SMT housings
- Insulation according to IEC 60950, UL 1950 and IEC 61558



DESCRIPTION:

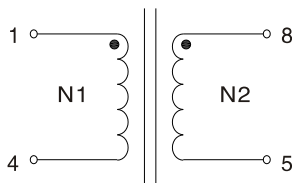
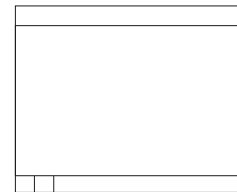
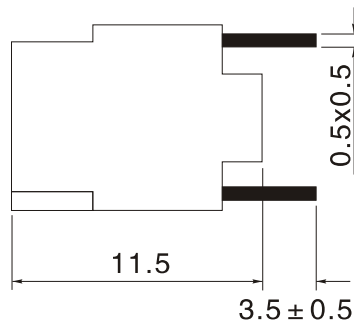
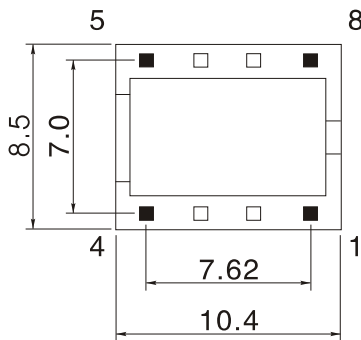
For narrowband PLC systems where the operating frequency may be up to 500 kHz isolation transformers based on amorphous or nanocrystalline offer excellent transmission characteristics, high robustness against EMC interferences and safe galvanic insulation.

STANDARD SPECIFICATION:

Part Number	Turns ratio	Sec. current (mA)Max	Sec. Inductance (mH)Min	Sec. Leakage inductance (Short Pri.) (uH)	Capacitance Pri to Sec (pF)Typ.	Sec. DCR (Ω)Typ.	Insulation voltage Pri. to Sec. (V)	Hi-Pot (kV)
T4085-004	1:1	30	1.4	0.8	25	0.2	300	4.0

PHYSICAL CHARACTERISTICS

TECHNICAL INFORMATION:



Notes:

Electrical specification at 25°C

Testing: LCR Bridge measured @ 1KHz 0.1V HP 4284A (Equivalent acceptable)

RDC: QuadTech 1880 Milliohmmeter

Operating temperature rang: -40°C to +125°C

Storage temperature rang: -40°C to +125°C

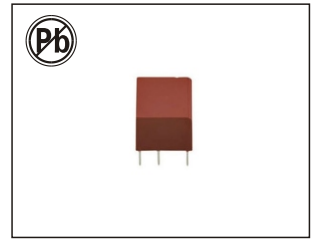
Note: All specifications subject to change without notice.

ISOLATION TRANSFORMERS FOR NARROWBAND PLC SYSTEMS

T4096 Series

FEATURES:

- Excellent transmission characteristics
- High mains current capability, low THD
- Matching with all leading IC (modulation methods FSK, DCSK and OFDM)
- Compliant with all PLC standards (HomePlug, CENELEC ...)
- Compact designs in THT and SMT housings
- Insulation according to IEC 60950, UL 1950 and IEC 61558



DESCRIPTION:

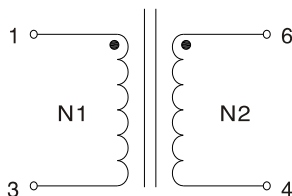
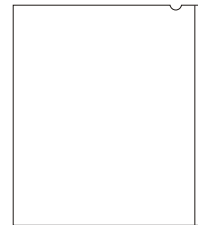
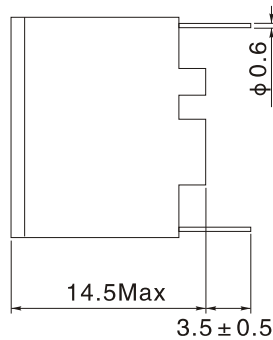
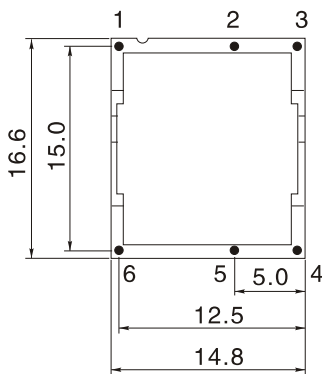
For narrowband PLC systems where the operating frequency may be up to 500 kHz isolation transformers based on amorphous or nanocrystalline offer excellent transmission characteristics, high robustness against EMC interferences and safe galvanic insulation.

STANDARD SPECIFICATION:

Part Number	Turns ratio	Sec. current (mA)Max	Sec. Inductance (mH)Min	Sec. Leakage inductance (Short Pri.) (uH)	Capacitance Pri to Sec (pF)Typ.	Sec. DCR (Ω)Typ.	Insulation voltage Pri. to Sec. (V)	Hi-Pot (kV)
T4096-046	1:1	30	1.3	1	12	0.15	500	6.0
T4096-047	1:1	/	1.3	10	5	0.2	500	6.0

PHYSICAL CHARACTERISTICS

TECHNICAL INFORMATION:



Notes:

Electrical specification at 25°C

Testing:LCR Bridge measured @ 1KHz 0.1V HP 4284A (Equivalent acceptable)

RDC: QuadTech 1880 Milliohm meter

Operating temperature rang: -40°C to +125°C

Storage temperature rang: -40°C to +125°C

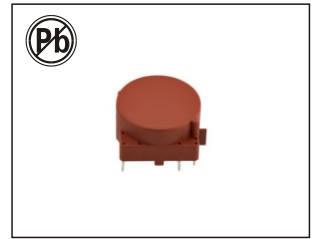
Note:All specifications subject to change without notice.

ISOLATION TRANSFORMERS FOR NARROWBAND PLC SYSTEMS

T4185 Series

FEATURES:

- Excellent transmission characteristics
- High mains current capability, low THD
- Matching with all leading IC (modulation methods FSK, DCSK and OFDM)
- Compliant with all PLC standards (HomePlug, CENELEC ...)
- Compact designs in THT and SMT housings
- Insulation according to IEC 60950, UL 1950 and IEC 61558



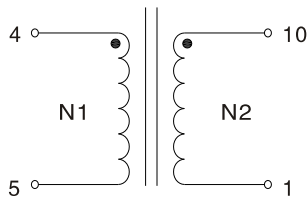
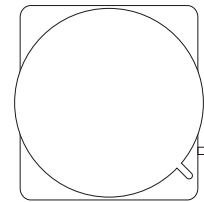
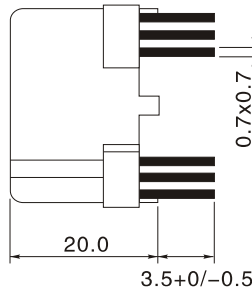
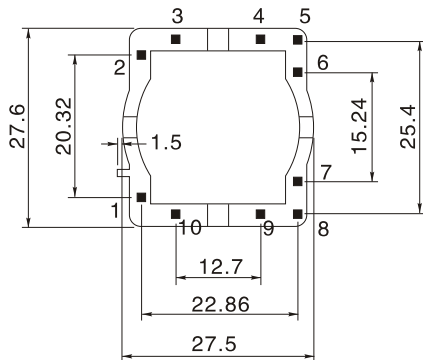
DESCRIPTION:

For narrowband PLC systems where the operating frequency may be up to 500 kHz isolation transformers based on amorphous or nanocrystalline offer excellent transmission characteristics, high robustness against EMC interferences and safe galvanic insulation.

STANDARD SPECIFICATION:

Part Number	Turns ratio	Sec. current (mA)Max	Sec. Inductance (mH)Min	Sec. Leakage inductance (Short Pri.) (uH)	Capacitance Pri to Sec (pF)Typ.	Sec. DCR (Ω)Typ.	Insulation voltage Pri. to Sec. (V)	Hi-Pot (kV)
T4185-047	1:1	50	1.4	0.8	15	0.2	400	10.0

PHYSICAL CHARACTERISTICS



Notes:

Electrical specification at 25°C

Testing: LCR Bridge measured @ 1KHz 0.1V HP 4284A (Equivalent acceptable)

RDC: QuadTech 1880 Milliohm meter

Operating temperature rang: -40°C to +125°C

Storage temperature rang: -40°C to +125°C

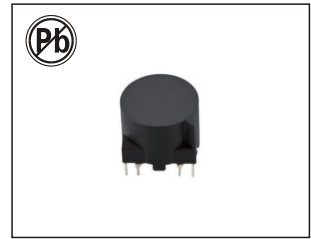
Note: All specifications subject to change without notice.

ISOLATION TRANSFORMERS FOR NARROWBAND PLC SYSTEMS

T4614 Series

FEATURES:

- Excellent transmission characteristics
- High mains current capability, low THD
- Matching with all leading IC (modulation methods FSK, DCSK and OFDM)
- Compliant with all PLC standards (HomePlug, CENELEC ...)
- Compact designs in THT and SMT housings
- Insulation according to IEC 60950, UL 1950 and IEC 61558



DESCRIPTION:

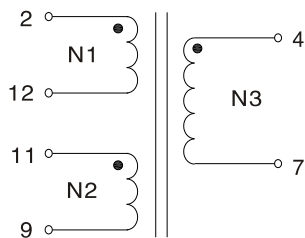
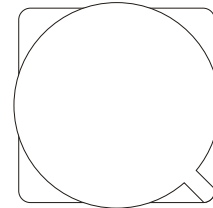
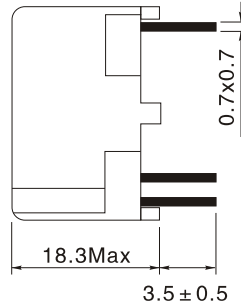
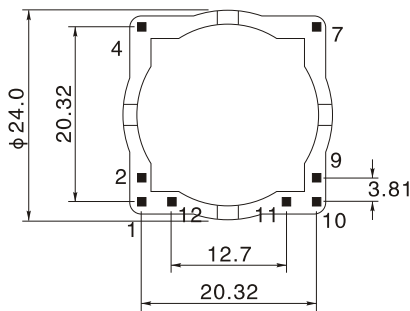
For narrowband PLC systems where the operating frequency may be up to 500 kHz isolation transformers based on amorphous or nanocrystalline offer excellent transmission characteristics, high robustness against EMC interferences and safe galvanic insulation.

STANDARD SPECIFICATION:

Part Number	Turns ratio	Sec. current (mA)Max	Sec. Inductance (mH)Min	Sec. Leakage inductance (Short Pri.) (uH)	Capacitance Pri to Sec (pF)Typ.	Sec. DCR (Ω)Typ.	Insulation voltage Pri. to Sec. (V)	Hi-Pot (kV)
T4614-010	1:1.2	250	0.44	0.9	60	0.02	450	5.1

PHYSICAL CHARACTERISTICS

TECHNICAL INFORMATION:



Notes:

Electrical specification at 25°C

Testing: LCR Bridge measured @ 1KHz 0.1V HP 4284A

(Equivalent acceptable)

RDC: QuadTech 1880 Milliohm meter

Operating temperature rang: -40°C to +125°C

Storage temperature rang: -40°C to +125°C

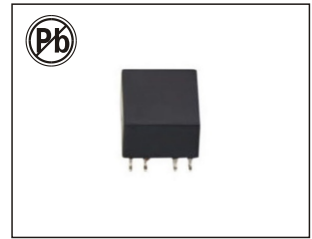
Note: All specifications subject to change without notice.

ISOLATION TRANSFORMERS FOR NARROWBAND PLC SYSTEMS

T5032 Series

FEATURES:

- Excellent transmission characteristics
- High mains current capability, low THD
- Matching with all leading IC (modulation methods FSK, DCSK and OFDM)
- Compliant with all PLC standards (HomePlug, CENELEC ...)
- Compact designs in THT and SMT housings
- Insulation according to IEC 60950, UL 1950 and IEC 61558



DESCRIPTION:

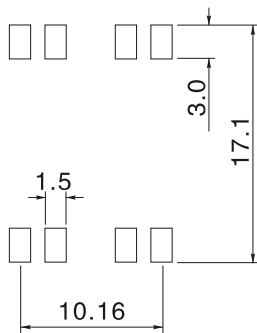
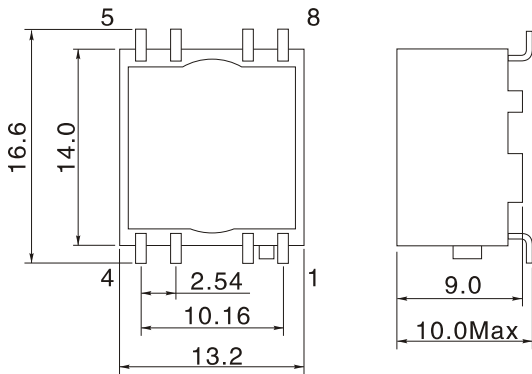
For narrowband PLC systems where the operating frequency may be up to 500 kHz isolation transformers based on amorphous or nanocrystalline offer excellent transmission characteristics, high robustness against EMC interferences and safe galvanic insulation.

STANDARD SPECIFICATION:

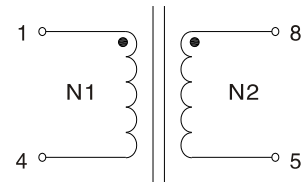
Part Number	Turns ratio	Sec. current (mA)Max	Sec. Inductance (mH)Min	Sec. Leakage inductance (Short Pri.) (uH)	Capacitance Pri to Sec (pF)Typ.	Sec. DCR (Ω)Typ.	Insulation voltage Pri. to Sec. (V)	Hi-Pot (kV)
T5032-104	1:1	90	0.5	6.6	15	0.09	100	1.0
T5032-111	2:1	130	0.3	5.8	7	0.17	300	3.0
T5032-102	1:1:2	100	0.7	1	30	0.23	450	5.1
T5032-114	1:1.15:1.62	120	0.54	1	30	0.22	450	5.1

PHYSICAL CHARACTERISTICS

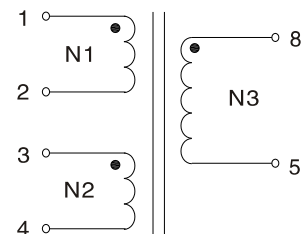
TECHNICAL INFORMATION:



Winding 1



Winding 2



Notes:

- Electrical specification at 25°C
- Testing: LCR Bridge measured @ 1KHz 0.1V HP 4284A (Equivalent acceptable)
- RDC: QuadTech 1880 Milliohm meter
- Operating temperature rang: -40°C to +125°C
- Storage temperature rang: -40°C to +125°C

Note: All specifications subject to change without notice.