



Product Series : GTX	Brand : GOTREND (Made in China)
File Version : GTX-EP10P-SERIES-V0R9	Editor : Jerry Chen
Established Date : 2023.03.06	Description : Current Sense Transformer
Latest Edit Date : 2023.03.06	Product Type : <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Customize

REMINDERS

- ◆ Product information in this catalog is subject to change without notice, and is for reference only. Therefore, please contact GOTREND Technology to check for the latest information before practical application or usage of the products.
- ◆ This catalog contains only typical specifications, please contact GOTREND Technology for further details if you can not find special components or information you need in this catalogue. Please also approve our product specifications or transact the approval sheet for product specifications before ordering.
- ◆ This catalogue only applies to products purchased through GOTREND Technology or its official agencies. This catalogue does not apply to products that are purchased through other third parties.
- ◆ Please read Attention and CAUTION note (for storage, operating, rating, soldering, mounting and handling) in this catalog to ensure product proper usage.
- ◆ GOTREND Technology is not responsible for issues that occur related to the intellectual property rights or other rights of our company or a third party when you use a product listed in this catalog. GOTREND Technology do not grant license of these rights.
- ◆ Information and data provided in the brochure can and do vary in different applications, and actual performance may vary over time.
- ◆ "Delivery Specification" illustrating precautions for the specifications and safety of each product listed in this catalog is available and we strongly recommend to provide these delivery specifications with customers that use these products.
- ◆ For exporting of product in this catalog, please take note it may be a restricted item according to the "Foreign Exchange and Foreign Trade Control Law". In such cases, it is necessary to acquire export permission in accordance to this law.
- ◆ Any reproduction or extraction of the contents in this catalog is prohibited without prior permission from GOTREND Technology.
- ◆ Products listed in this catalog are intended for general electronic device usage under normal operation and use condition including telecommunication equipment, home appliances, sports equipment AV equipment, industrial machine, office equipment etc. Please take note that our products are not designed, intended or authorized for use in below mentioned applications unless explicitly agreed in writing between the parties to avoid product failure that could result in situation where personal injury or death could occur.
 - (1) Aerospace/Aviation equipment
 - (2) Atomic energy-related equipment
 - (3) Disaster prevention/crime prevention equipment
 - (4) Electric heating apparatus, burning equipment
 - (5) Medical equipment
 - (6) Military equipment
 - (7) Power-generation control equipment
 - (8) Public information-processing equipment
 - (9) Safety equipment
 - (10) Seabed equipment
 - (11) Transportation control equipment
 - (12) Transportation equipment (cars, electric trains, ships, etc.)
 - (13) Other applications that are not considered general-purpose applications
- ◆ Our manufacturing sites fully compliance with requirement regarding the quality management system in the automotive industry under the IATF 16949 standard. GOTREND Technology respect individual agreements with reference to customer requirements and customer specific requirements (CSR). We will like to emphasize that only requirements mutually agreed upon will in implemented in our Quality Management System taking into consideration that IATF 16949 may appear to support the acceptance of unilateral requirements. We will only legally bind to this individually agreed upon agreement under the IATF 16949 standard.
- ◆ The product itself is a powder metallurgy product, so the structure is relatively fragile, and it should not be used for products that are easy to fall. In addition, when this product is assembled, it should avoid collision with the tool or mechanism shell. 
- ◆ It is not recommended to use hot air gun for disassembling of this product. When using of hot air gun to repair other parts, please also take note that long time or high temperature exposure of this product will also damage the inductance device. If you need to use the hot air gun to disassemble the product, it is recommended to adjust the hot air gun temperature to 380 ° C ± 5 ° C . The blower head of the hot air gun should be perpendicular and at least 1cm away from the product. After heating the product to the tin material melting point, use tweezers to remove the product from the PCB. 

Product Series : GTX	Brand : GOTREND (Made in China)
File Version : GTX-EP10P-SERIES-V0R9	Editor : Jerry Chen
Established Date : 2023.03.06	Description : Current Sense Transformer
Latest Edit Date : 2023.03.06	Product Type : <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Customize

Features & Application :

- * Design the effective , by following customer needs.
- * Frequency range 50 ~ 250 kHz
- * Hi-pot : between windings 2400 Vac
- * Sensed current up to 30 A
- * Clearance distance Np/Ns 6.2 mm ref.
- * Clearance distance Np/(Ns/Core) 4.0 mm ref.
- * Application : Current detection 、 Metering 、 current sensing

(Picture for reference only)

Part No. Example :

GTX	-	EP10	P	50	-	172	Y
-----		-----	---	---	---	---	---
1		2	3	4		5	6
1	:	GOTREND Series code : GTX					
2	:	Core Structure & Size Code : EP10					
3	:	Pb free Code : P = Pb free < 1000 ppm					
4	:	Ratio Turns : 50 = 1 : 50					
5	:	Inductance Value : 172 = 1.7mH					
6	:	Tolerance Code : Y = Min.					


Basic Information :

Made in China
Pin Foot SMD
Shielding Semi-Shielding
J-STD-020 MSL Level 1
RoHS Compliant
REACH Compliant
Halogen Free

Operating & Storage Condition :

- * Operating Temp -40 ~ +155 ° C (Including self - temperature rise)
- * Storage Temp 1. -10 ~ +45 ° C , 50 ~ 60% RH (Product with taping)
2. -20 ~ +60 ° C (On board)
- * Storage Life Time 6 Month (Less than 40 ° C and 60% RH)

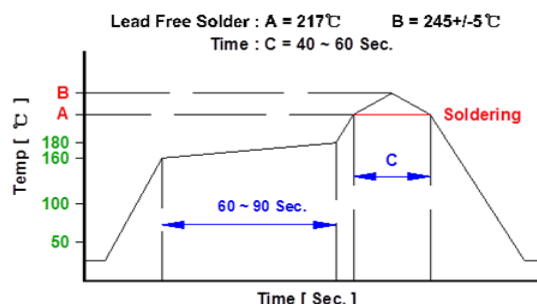
Attention & Caution :

- * Keep out of Splashing water or salt water
- * Avoid Toxic Gas (Hydrogen sulfide, Sulfurous acid, Chlorine, Ammonia)
-  Vibrations or shocks which exceed the specified condition
- Dew condense
- Layout near the edge of PCB
- Over flexure after SMT mounting & PCBA
- * Pin foot or SMD pad solderability: Pb free type is best within 6 months after delivery
- * Humidity sensitive , IPC/JEDEC J-STD-020 MSL if over Level 1, recommend bake 30mins@150 degree before PCBA
- * Caution for human life relative applications : PLS contact & consult with GOTREND team in design stage.

Test Condition :

- * Equipment WK3260B , WK3265B - L , Q , DCR , IDC
KEISIGHT E5061B Network analyzer - SRF
TH9301A HI-POT TEST - AC , DC
TH2511 - DCR
- * Standard Atmosphere Conditions:
Ambient Temperature 20 ± 15 ° C
Humidity RH 65 ± 20%
- * If there may be any doubt on the test result ,
Measurement shall be made within the following limits:
Ambient Temperature 25 ± 5 ° C
Humidity RH 75 ± 10%

Recommend IR Reflow Curve : GTX-IR-FILE001

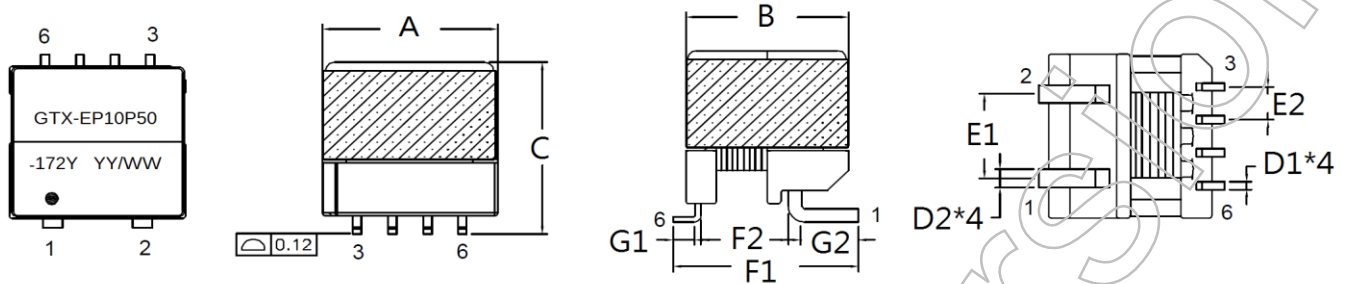


Notice : Iron Soldering , Solder < 30 Watt ,
Direct touch the terminal x 3 Sec. Max. @ 350°C

Product Series : GTX	Brand : GOTREND (Made in China)
File Version : GTX-EP10P-SERIES-V0R9	Editor : Jerry Chen
Established Date : 2023.03.06	Description : Current Sense Transformer
Latest Edit Date : 2023.03.06	Product Type : <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Customize

GTX-EP10P-SERIES

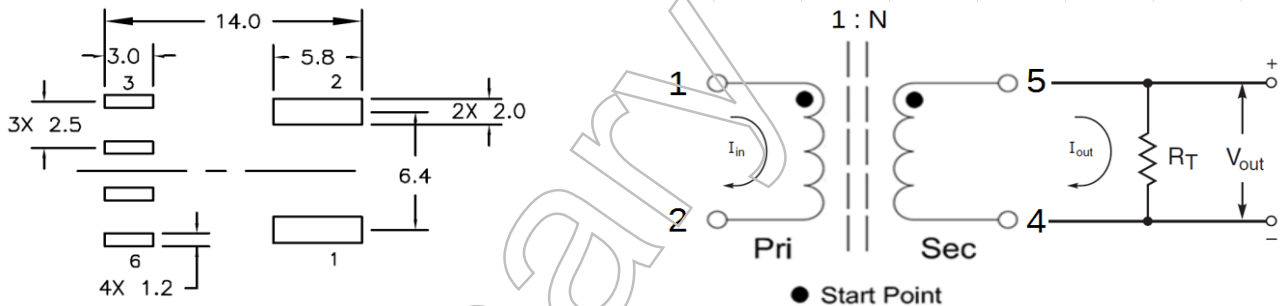
Dimension : [mm]



Dimension		Unit : mm					
A (Max.)	B (Max.)	C (Max.)	D1 (+/-0.1)	D2 (+/-0.1)	E1 (+/-0.3)	E2 (+/-0.3)	F1 (+/-0.4)
12.8	12.2	14.4	0.6	1.4	6.4	2.5	13.2
F2 (Ref.)	G1 (Ref.)	G2 (Ref.)					
6.2	1.85	3.85					

Recommend Pad Layout :

Schematic :



Electrical Characteristics :

Part Number	L(N1) Min. (20KHz,0.01V)	DCR(mΩ) Max.		Turns ratio Pri:Sec:Aux	Primary current IDC (A) Max.	Terminating Resistance (Ω)	Vsense Voltage-time V * μs
		Pri.	Sec.				
GTX-EP10P50-172Y	1.7 mH	0.5	650	1:50	30A	1.6	117
GTX-EP10P70-302Y	3.0 mH	0.5	1380	1:70	30A	2.3	164
GTX-EP10P100-702Y	7.0 mH	0.5	2790	1:100	30A	3.3	235
GTX-EP10P125-113Y	11.0 mH	0.5	4000	1:125	30A	4.1	294
GTX-EP10P150-153Y	15.0 mH	0.5	6000	1:150	30A	5.0	353
GTX-EP10P180-253Y	25.0 mH	0.5	7400	1:180	30A	6.0	423
GTX-EP10P200-323Y	32.0 mH	0.5	9000	1:200	30A	6.6	470

NOTE :

* HI-POT TEST (Pri - Sec) 2400 VAc 5.0mA / 60S

* Frequency range 50 ~ 250 kHz

* IDC Base on temp. Rise up 40°C Typ.

* Vsense,max Maximum output voltage of the measurement signal

* RT Resistance of burden resistor

Product Series :	GTX	Brand :	GOTREND (Made in China)
File Version :	GTX-EP10P-SERIES-V0R9	Editor :	Jerry Chen
Established Date :	2023.03.06	Description :	Current Sense Transformer
Latest Edit Date :	2023.03.06	Product Type :	<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Customize

Care note :

Care note for Use :

(1) Model :

When this product was used in a similar or as new product to the original one, sometimes it might be unable to satisfy the specifications due to difference in condition of usage.

(2) Drop :

If this product suffered mechanical stress such as drop, characteristics may become poor (due to damage on coil / bobbin / ferrite ... etc.)

Never use such stressed product.

Care note for Safety :

(1) Provision to Abnormal Condition :

This product itself does not have any protective function in abnormal condition such as overload, short-circuit and open-circuit conditions, etc.

Therefore, it shall be confirmed from the end product that there is no risk of smoking, fire, dielectric withstand voltage insulation resistance, etc. in abnormal conditions to provide protective devices and /or protection circuit in the end product.

(2) Temperature Rise :

Temperature rise on this product depends on the installation condition on end products.

It shall be confirmed on the actual end product that temperature rise of this product is within the specified temperature class limit.

(3) Dielectric Strength :

Dielectric withstanding test with higher voltage than specific value will damage insulating material and shorten its life.

(4) Water :

This product must not be used in wet condition resulted from water, coffee or any liquid contact because insulation strength becomes very low under such condition.

(5) Potting :

If this product is potted in some compound, coating material of magnet wire might be occasionally damaged. Please ask us if you intend to pot this product.

(6) Detergent :

Please consult our company immediately once under such circumstances because product reliability confirmation etc. is needed when this product come in contact with these chemicals.

Product Series : GTX	Brand : GOTREND (Made in China)
File Version : GTX-EP10P-SERIES-V0R9	Editor : Jerry Chen
Established Date : 2023.03.06	Description : Current Sense Transformer
Latest Edit Date : 2023.03.06	Product Type : <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Customize

Reliability :

SN	Test Item	Test Condition	Specification																
1	Thermal Shock (Temperature Cycle)	Temperature : -40 ° C ~ +155° C kept stabilized for 30 minutes each Cycle : 100 Cycles.	There must be no deformation or change in dimension. Inductance must not change more than the stated tolerance.																
2	Humidity Resistance	Humidity : 90%~ 95% RH Temperature : 40 ± 2 ° C Test Time : 500 ± 12 Hours	There must be no case deformation or change in dimensions. Inductance must as specification stated.																
3	HighTemperature	Temperature : 155 ± 2 ° C Humidity : 20% Test Time : 500 ± 12 Hours	There must be no case deformation or change in dimensions. Inductance must as specification stated.																
4	Low Temperature	Temperature : -40 ± 2 ° C Test Time : 500 ± 12 Hours	There must be no case deformation or change in dimensions. Inductance must as specification stated.																
5	Temperature and Humidity Cycle	<table border="1"> <thead> <tr> <th>Step</th> <th>Temp</th> <th>Humidity</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>25 ± 2 ° C</td> <td>95 ~ 100% RH</td> <td>3.0Hr</td> </tr> <tr> <td>2</td> <td>55 ± 2 ° C</td> <td>95 ~ 96% RH</td> <td>9.5Hr</td> </tr> <tr> <td>3</td> <td>25 ± 2 ° C</td> <td>95 ~ 100% RH</td> <td>9.5Hr</td> </tr> </tbody> </table>	Step	Temp	Humidity	Time	1	25 ± 2 ° C	95 ~ 100% RH	3.0Hr	2	55 ± 2 ° C	95 ~ 96% RH	9.5Hr	3	25 ± 2 ° C	95 ~ 100% RH	9.5Hr	There must be no case deformation or change in dimensions. Inductance must as specification stated.
		Step	Temp	Humidity	Time														
		1	25 ± 2 ° C	95 ~ 100% RH	3.0Hr														
2	55 ± 2 ° C	95 ~ 96% RH	9.5Hr																
3	25 ± 2 ° C	95 ~ 100% RH	9.5Hr																
6	Vibration	Frequency : 10Hz ~ 50Hz Amplitude : 1.5 mm Direction : X , Y , Z Time : 2 Hours each	Solder inductors on the test PCB.After vibration, there must be no deformation or change in dimension. Inductance must not change more than the stated tolerance.																
7	Soldering Heat Resistance	Preheat : 120 ~ 150 ° C (60 sec) Solder : H63A (eutectic solder) Solder Temp. : 260 ± 5 ° C Flux : Rosin Dip time : 10 ± 1 second	The chip must have no cracks.More than 75% of the terminal electrode must be covered with solder. For 96.5 Sn / 3.5 Ag Solder Past: > 217 oC / 90 Seconds. For 63.0 Sn / 37 Pb Solder Past: > 183 oC / 120 Seconds.																

Packaging Information :

Box Package (cm) :

