

Product Series Code	GW	Brand	GOTREND
File Version	GW09805640PT-12C12RN7-AE-V1R2	Editor	Teddy
Established Date	2019.07.12	Description	Wireless Charging Coils
Latest Edit Date	2020.03.18	Pages	Page : 2

Features & Application :

- * Wireless charging coil : Complies with Qi MP-A13 specifications
- * High permeability shielding for wireless charging coils
- * Blocks charging flux from sensitive components or batteries
- * High saturation powered iron - not affected by permanent locating magnets
- * Durable construction
- * Compliant to RoHS Directive 2002 / 95 / CE
- * Qualified AEC - Q200
- * Automotive and other high temperature , high reliability application.



Product Structure :

SMD	DIP	Shield	Unshield		
2005 RoHS Compliant - SGS Certified Result					
Pb	Cd	Hg	Cr+6	PBB	PBDE
<1000ppm	ND	ND	ND	ND	ND

Part No Example:

GW 09805640 P T - 12 C12 R N 7 - AE

1 2 3 4 5 6 7 8 9 10

- Product Code : GW
- Size Code : 09805640 = 98.0 x 56.5 x 4.0 mm
- P = Pb Free < 1000ppm
- [T] : Transmitter coil
- Wire Size : 12 = 1.2 mm
- Coil Count and Turns : C12 = 3 Coils by 12.0 Turns
- Wire Color : R = Copper Red
- [N] : Hard magnetic material
- [7] : For customer special design.
- [AE] : Reliability comply with AEC-Q200 standard type.

Test Equipment :

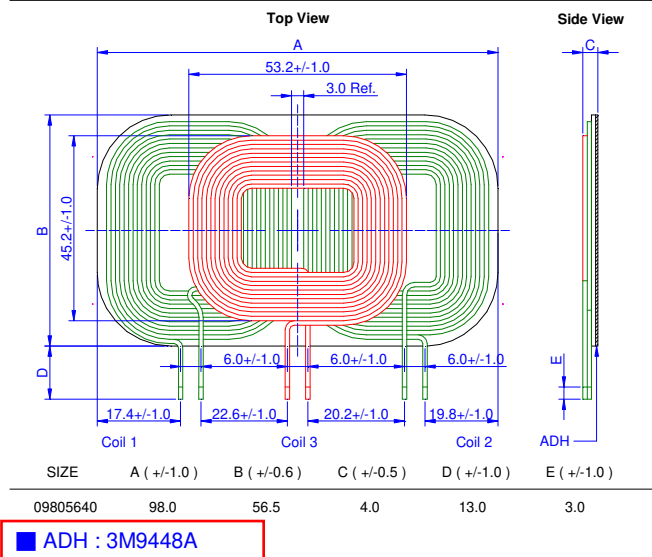
- * HIKOI 3532-50 > L , Q
- * TONGHUI TH2512B > DCR

Standard Atmospheric Conditions :
 Ambient Temp : 20 +/- 15°C
 Relative Humidity : 65 +/- 20%
 If there may be any doubt on the result,
 measurement shall be made within the following limits :
 Ambient Temp : 25 +/- 5°C
 Relative Humidity : 75 +/- 10%

Operating & Storage Condition :

Operating Temp : -40 ~ +125°C
 Storage Temp : -40 ~ +125°C
 Storage Life Time : 12 Month @25°C , RH 40~65%

DIMENSION : [mm]



Attention & Caution :

- Please avoid following matters:
- * Splashing water or salt water
 - * Toxic Gas (Hydrogen sulfide, Sulfurous acid, Chlorine, Ammonia)
 - * Vibrations or shocks which exceed the specified condition
 - * Dew condenses
 - * Please be careful for the stress to this product by board flexure or something after the mounting.

Electrical Characteristics :

GOTREND PN	Inductance (uH) Coil 1, 2	Inductance (uH) Coil 3	Q Coil 1, 2	Q Coil 3	DCR (m Ohm) Coil 1, 2, 3
GW09805640PT-12C12RN7-AE	12.5+/-10%	11.5+/-10%	100 Min. / 125 Typ.	92 Min. / 115 Typ.	60.0 +/- 20%

* Inductance Test Condition@125KHz , 1.0Vrms, 25°C Ambient

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Reliability :

NO	ITEM	TEST CONDITIONS	Specification
1	External Visual MIL-STD-883 Method 2009	Inspect device construction and workmanship. Electrical test not required.	There is no change for appearance (electrode did not fall off , loose , no breakage , ferrite core did not break , damage)
2	Physical Dimension JESD22 Method JB-100	Verify physical dimensions to the device specification.	For Spec.
3	Thermal Shock MIL-STD-202 Method 107	Temperature : $-40 \pm 2^{\circ}\text{C} \sim +125 \pm 2^{\circ}\text{C}$ Max transfer time : 20 s. Dwell time : 15 minutes. Air - Air	There is no change for appearance (electrode did not fall off , loose , no breakage , ferrite core did not break , damage) Inductor value / resistance change rate $\pm 10\%$.
4	Humidity Resistance MIL-STD-202 Method 103	Humidity : 85% RH Temperature : 85°C Test time : 1000 Hours	There is no change for appearance (electrode did not fall off , loose , no breakage , ferrite core did not break , damage) Inductor value / resistance change rate $\pm 10\%$.
5	High Temperature MIL-STD-202 Method 108	Temperature: $125 \pm 2^{\circ}\text{C}$ Test time: 1000 Hours	There is no change for appearance (electrode did not fall off , loose , no breakage , ferrite core did not break , damage) Inductor value / resistance change rate $\pm 10\%$.
6	Temperature and Humidity Cycle JESD22 Method JA-104	Temperature : $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$ Cycles : 1000	There is no change for appearance (electrode did not fall off , loose , no breakage , ferrite core did not break , damage) Inductor value / resistance change rate $\pm 10\%$.
7	Operational Life MIL-PRF-27	Temperature : 125°C Load : Allowed DC current Test time: 1000 Hours	No short circuit , open circuit.
8	Vibration MIL-STD-202 Method 204	5 g' s for 20 minutes , 12 cycles each of 3 orientations. Test from 10Hz ~ 2000Hz	No bad phenomenon.
9	Mechanical Shock MIL-STD-202 Method 213	Figure 1 of Method 213 SMD : Condition C.	No bad phenomenon.
10	Resistance to Soldering Head MIL-STD-202 Method 210	Condition B No pre-heat of samples. Temperature 250 up / 5 s. Temperature 183 up / 90 ~ 120 s.	Tin solder have to cover over 90% area.
11	Solderability J-STD-002	a. Method B , 4 Hours @ 155°C dry heat @ 235°C b. Method B @ 215°C category 3 c. Method D @ 260°C category 3	No change and transform form the appearance.

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Package Information:

BOX Package: mm

Foam Box : 320 x 320 x 45 / 60 Pcs

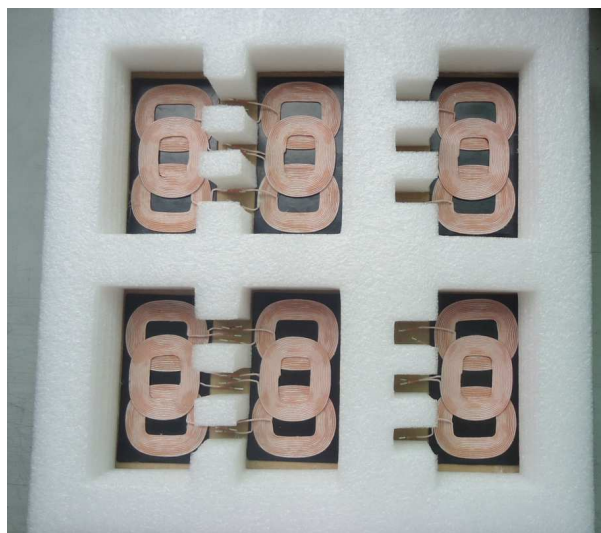


Photo content is for reference only.

Large Box : 350 x 350 x 220 / 240 Pcs



Photo content is for reference only.