	Product Series Code	GTHW	Brand	GOTREND
	File Version	GTHW3225P-502T-V1R0	Editor	Teddy
	Established Date	2016.09.22	Description	Common Mode Filter
	Latest Edit Date	2016.09.22	Pages	Page : 2

Features & Application:

- * Non-dissolution of the abutment amounts in circuit board mounting.
- * The products contain no lead and also support lead-free soldering.
- * This product conforms to the standards that are slated to be introduced under the RoHS Directive.
- * CAN-BUS / Flex Ray system , facsimiles , modems , ISDN

Part No Example:

GTHW 3225 P - 502 T - S1

1 2 3 4 5 6

1. GTHW : GOTRED Series Code
2. 3225 : Length 3.2 mm X Width 2.5 mm
3. P : Pb free < 1000ppm
4. 502 : Impedance [Ohm] @ 100MHz = 5000 Ohm
5. T : Tolerance T = Typical
6. S1 : For customer special design

Test Equipment :

* HP4291A-Z, HP4284A, HP42841A- L,Z, IDC, 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~+85°C

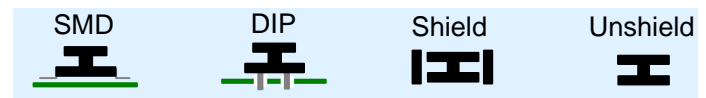
STORAGE LIFE TIME: 12 MONTH @ 25°C , RH 65%

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.

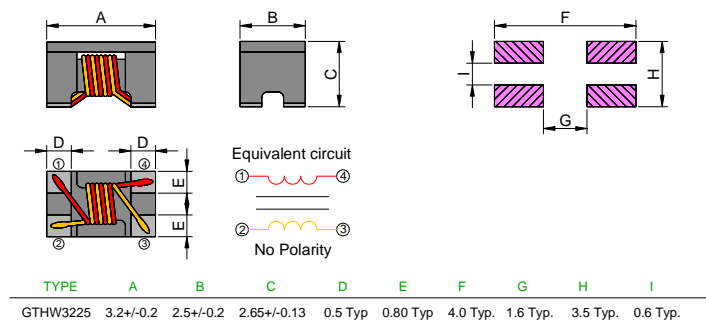
Product Structure



2005 RoHS Compliant - SGS Certified Result

鉛 Pb	鎘 Cd	汞 Hg	六價鉻 Cr+6	溴化聯苯 PBB	溴化聯苯 醌PBDE
<1000ppm	ND	ND	ND	ND	ND

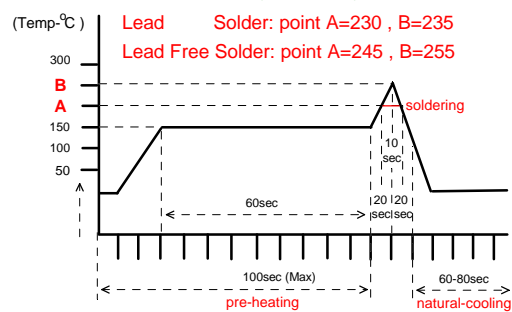
DIMENSION : [mm]



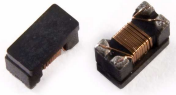
Size Code & Package Quantity:

JIS CODE	EIA CODE	PCS / REEL	REEL / BOX
3225	1210	2000	5

Recomand Reflow Curve (TIME:Second)

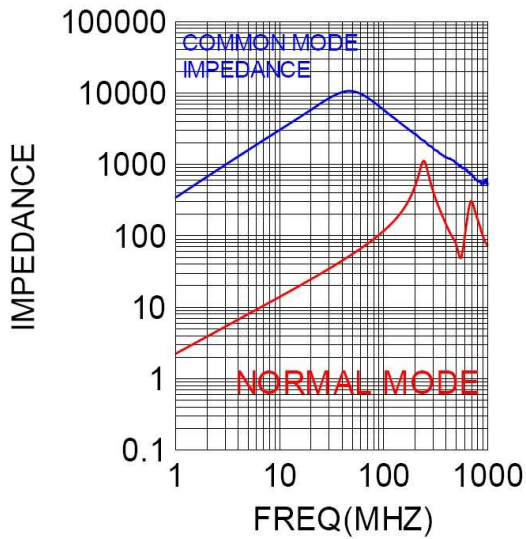


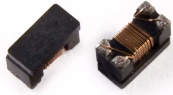
Notice: Iron Soldering: 3 Seconds Max. @ 260°C

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Part No.	Common Mode Impedance (Ohm)@10MHz	Common Mode Impedance (Ohm)@10MHz	Common Mode Inductance (uH)@100KHz	DCR (Ohm)	Rated Current (mA)	Insulation Resistance (M Ohm)	Rated Voltage V(DC)
GTHW3225P-502T-S1	1000 Min.	2600 Typ.	51 +50/-30%	1.0 Max.	600 Max.	10.0 Min.	50

* Rated Current : which the temperature rise is $\Delta 40$, whichever 20°C





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Reliability Test Result :																			
NO	ITEM	TEST CONDITIONS	REMARKS																
1	Thermal Shock (Temperature Cycle) 溫度循環試驗	Temperature: -40 ° C / +85 ° C kept stabilized for 30 minutes each Cycle: 100 Cycles	Inductance value shall be within $\pm 10\%$ of the initial value. Q-factor shall be within $\pm 30\%$ of the initial value. Impedance shall be within $\pm 20\%$ of the initial value. DCR value shall be within $\pm 20\%$ of the initial value.																
2	Humidity Resistance 耐濕試驗	Humidity: 90%~95% RH Temperature: 40 \pm 2 ° C Test Time: 1000 \pm 12 Hours	■NO.1~4 Measurement: After placing for 24 hours (min.) ■NO.2~3 Applied current(spec): Rated current(maximum value) ■NO.5 Cycle: 5 cycles																
3	High Temperature 耐熱試驗	Temperature: 85 \pm 2 ° C Humidity: 20% Testing Time: 1000 \pm 12 Hours																	
4	Low Temperature 耐寒試驗	Temperature: -40 \pm 2 ° C Time: 1000 \pm 12 Hours																	
5	Temperature and Humidity Cycle 溫/濕度循環試驗	<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\pm 2 ° C</td> <td>95~100%RH</td> <td>3.0Hr</td> </tr> <tr> <td>2</td> <td>55\pm 2 ° C</td> <td>95~96%RH</td> <td>9.5Hr</td> </tr> <tr> <td>3</td> <td>25\pm 2 ° C</td> <td>95~100%RH</td> <td>9.5Hr</td> </tr> </tbody> </table>		Step	Temp	Humidity	Time	1	25 \pm 2 ° C	95~100%RH	3.0Hr	2	55 \pm 2 ° C	95~96%RH	9.5Hr	3	25 \pm 2 ° C	95~100%RH	9.5Hr
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2	55 \pm 2 ° C	95~96%RH	9.5Hr																
3	25 \pm 2 ° C	95~100%RH	9.5Hr																
6	Vibration 振動性試驗	Frequency: 10Hz~55Hz Amplitude: 1.5mm Direction: X,Y,Z Time: 2 Hours each																	
7	IR Reflow Soldering 焊錫性試驗	Solder: H63A(eutectic solder) Solder Temp.: 230 \pm 5 ° C Time: 6 minutes Cycles: x 1	Impedance(inductance) shall be within $\pm 20\%$ of the initial value. DCR value shall be within $\pm 20\%$ of the initial value.																
8	Soldering Heat Resistance 耐熱 焊性試驗	Preheat: 120 ~ 150 ° C (60 sec) Solder:H63A(eutectic solder) Solder Temp.: 260 \pm 5 ° C Flux: Rosin Dip time: 10 \pm 1 seconds	The chip must have no cracks. More than 75% of the terminal electrode must be covered with solder.																
9	Bending Strength 折斷力試驗		The terminal electrode and the ferrite must not be damaged by the forces applied on the test conditions. 3225 : $\geq 0.8\text{kg}$																
10	Flexure Strength 彎曲試驗		No mechanical damage shall be noticed even when the board is bent 2 mm																
11	Terminal Strength 拉力試驗		The terminal electrode and the ferrite must not be damaged by the forces applied on the test conditions. 3225: $\geq 0.8\text{ kg}$																