



Product Series Code	GTVS	Brand	GOTREND
File Version	GTVS SERIES-V1R0	Editor	Teddy
Established Date	2013.11.27	Description	SMD Power Inductor
Latest Edit Date	2013.11.27	Pages	Page : 2

Features & Application :

- * SMD Powre Choke for High Current Capacity
- * Fit for power line & signal line circuit
- * To help you go pass the CE/FCC standard.
- * PC / IPC / Handheld Device / LowProfile Device / LCD...

Part No Example :

GTVS 070705 P [] - R10 M

1 2 3 4 5 6

1. GOTREND Series : GTVS
2. Dimension Code : 7.00 x 7.00 x 4.96 mm
3. P = Pb free < 1000 ppm
4. [] Material Code - L : Low DCR
5. L - Value Ex : R10 = 0.10 uH ; 72N = 0.72 uH
6. Tolerance : M = 20%

Test Equipment :

- * HP4192A , HP4286A - L , Isat , I rms
- * HIOKI 3540 - 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%

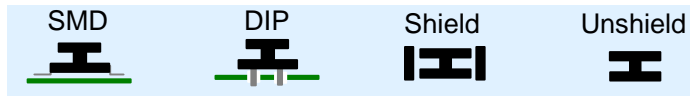
Operating & Storage Condition :

OPERATING TEMP : -40 ~ +125°C
 STORAGE TEMP : -40 ~ +125°C
 STORAGE LIFE TIME : 12 MONTH @25°C , RH 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.

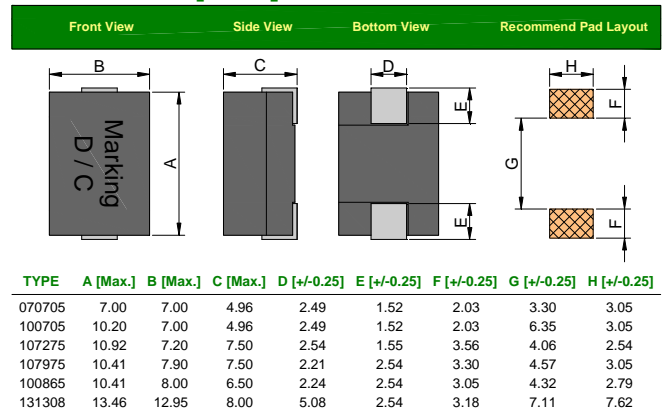
Product Structure :



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

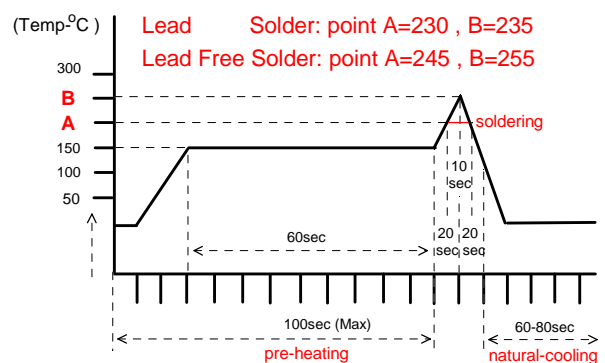
DIMENSION : [mm]



SCHEMATIC :



Recomand Reflow Curve (TIME:Second)





Product Series Code	GTVS	Brand	GOTREND
File Version	GTVS SERIES-V1R0	Editor	Teddy
Established Date	2013.11.27	Description	SMD Power Inductor
Latest Edit Date	2013.11.27	Pages	Page : 3

Electrical Characteristics :

Part NO.	Inductance (uH)	Tolerance	Test Freq. (Hz)	DCR (m Ohm)	Irms (A) Max.	Isat (A) Max.
GTVS070705P-72NM	0.072	+/-20%	1M / 0.25V	0.46 +/- 6.5%	31	58
GTVS070705P-R10M	0.105	+/-20%	1M / 0.25V	0.46 +/- 6.5%	31	46
GTVS070705P-R15M	0.150	+/-20%	1M / 0.25V	0.46 +/- 6.5%	24	30
GTVS100705P-85NM	0.085	+/-20%	1M / 0.25V	0.39 +/- 7.7%	31	70
GTVS100705P-R10M	0.100	+/-20%	1M / 0.25V	0.39 +/- 7.7%	31	70
GTVS100705P-R12M	0.120	+/-20%	1M / 0.25V	0.39 +/- 7.7%	31	52
GTVS100705P-R15M	0.155	+/-20%	1M / 0.25V	0.39 +/- 7.7%	31	40
GTVS100705P-R22M	0.220	+/-20%	1M / 0.25V	0.39 +/- 7.7%	25	33
GTVS107275P-70NM	0.070	+/-20%	100K / 1.0V	0.29 +/- 10%	48	138
GTVS107275P-R12M	0.120	+/-20%	100K / 1.0V	0.29 +/- 10%	48	87
GTVS107275P-R15M	0.150	+/-20%	100K / 1.0V	0.29 +/- 10%	48	70
GTVS107275P-R18M	0.180	+/-20%	100K / 1.0V	0.29 +/- 10%	48	60
GTVS107275P-R22M	0.220	+/-20%	100K / 1.0V	0.29 +/- 10%	48	47
GTVS107275P-R30M	0.300	+/-20%	100K / 1.0V	0.29 +/- 10%	48	34
GTVS107275P-R40M	0.400	+/-20%	100K / 1.0V	0.29 +/- 10%	48	23
GTVS107275P-R51M	0.510	+/-20%	100K / 1.0V	0.29 +/- 10%	48	17
GTVS107975P-R12M	0.120	+/-20%	1M / 0.25V	0.29 +/- 7%	41	94
GTVS107975P-R15M	0.150	+/-20%	1M / 0.25V	0.29 +/- 7%	41	72
GTVS107975P-R18M	0.180	+/-20%	1M / 0.25V	0.29 +/- 7%	41	62
GTVS107975P-R21M	0.210	+/-20%	1M / 0.25V	0.29 +/- 7%	41	48
GTVS107975P-R23M	0.230	+/-20%	1M / 0.25V	0.29 +/- 7%	37	43
GTVS107975P-R27M	0.270	+/-20%	1M / 0.25V	0.29 +/- 7%	31	37
GTVS107975P-R30M	0.300	+/-20%	1M / 0.25V	0.29 +/- 7%	27	32
GTVS100865P-R12M	0.120	+/-20%	1M / 0.25V	0.48 +/- 8%	40	74
GTVS100865P-R14M	0.140	+/-20%	1M / 0.25V	0.48 +/- 8%	40	66
GTVS100865P-R18M	0.180	+/-20%	1M / 0.25V	0.48 +/- 8%	40	52
GTVS100865P-R22M	0.220	+/-20%	1M / 0.25V	0.48 +/- 8%	40	50
GTVS100865P-R31M	0.310	+/-20%	1M / 0.25V	0.48 +/- 8%	30	30
GTVS131308P-R21M	0.210	+/-20%	1M / 0.25V	0.53 +/- 11.3%	45	71
GTVS131308P-R26M	0.260	+/-20%	1M / 0.25V	0.53 +/- 11.3%	45	60
GTVS131308P-R32M	0.320	+/-20%	1M / 0.25V	0.53 +/- 11.3%	41	50
GTVS131308P-R44M	0.440	+/-20%	1M / 0.25V	0.53 +/- 11.3%	30	35
GTVS131308PL-R15M	0.150	+/-20%	1M / 0.25V	0.32 +/- 9.4%	50	80
GTVS131308PL-R21M	0.210	+/-20%	1M / 0.25V	0.32 +/- 9.4%	45	71
GTVS131308PL-R26M	0.260	+/-20%	1M / 0.25V	0.32 +/- 9.4%	45	60
GTVS131308PL-R32M	0.320	+/-20%	1M / 0.25V	0.32 +/- 9.4%	41	50
GTVS131308PL-R44M	0.440	+/-20%	1M / 0.25V	0.32 +/- 9.4%	30	35

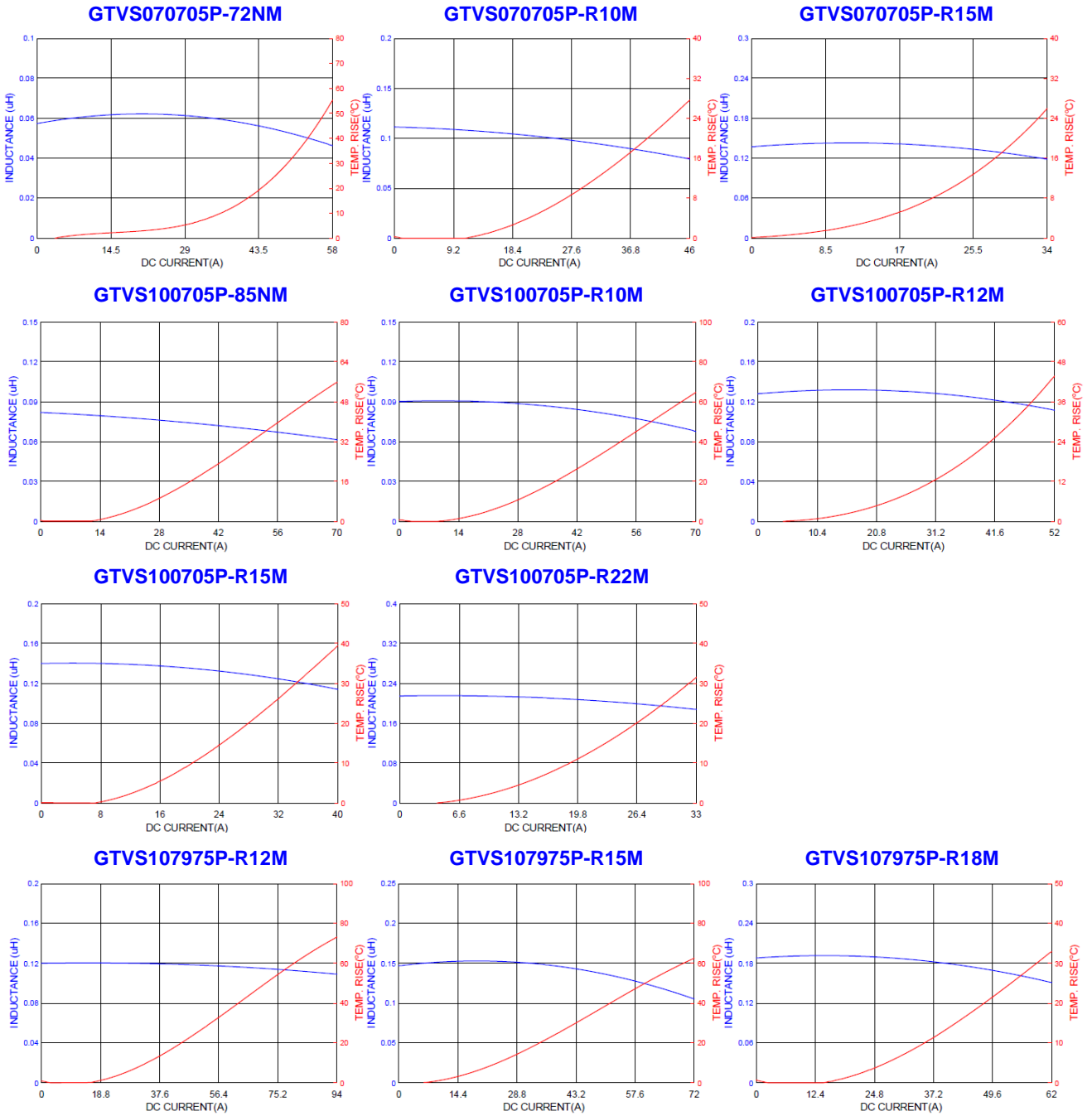
Note : 1. All test data is referenced to 25 deg.C ambient.

2. I_{rms} (A) current will cause coil temperature rise approximately up 40 deg.C without core loss (Keep 1.0 min.),
I_{rms} (A) current will cause coil temperature rise approximately up 50 deg.C without core loss (Keep 1.0 min.).
> **GTVS107275P SERIES**
3. I_{sat} (A) current will cause L0 to drop approximately 20% (Keep quickly).
I_{sat} (A) current will cause L0 to drop approximately 30% (Keep quickly). > **GTVS107275P SERIES**
4. The part temperature (ambient + temp rise) should not exceed 125 deg.C under worst case operating conditions.



Product Series Code	GTVS	Brand	GOTREND
File Version	GTVS SERIES-V1R0	Editor	Teddy
Established Date	2013.11.27	Description	SMD Power Inductor
Latest Edit Date	2013.11.27	Pages	Page : 4

Typical Performance Curves :

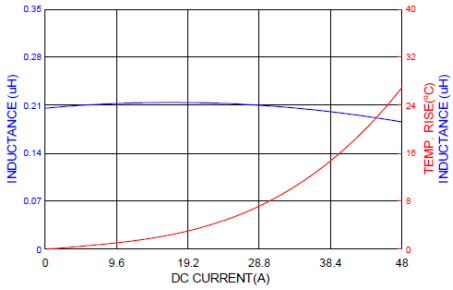




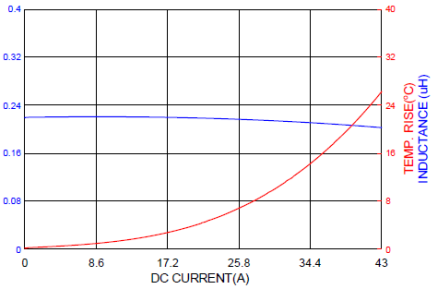
Product Series Code	GTVS	Brand	GOTREND
File Version	GTVS SERIES-V1R0	Editor	Teddy
Established Date	2013.11.27	Description	SMD Power Inductor
Latest Edit Date	2013.11.27	Pages	Page : 5

Typical Performance Curves :

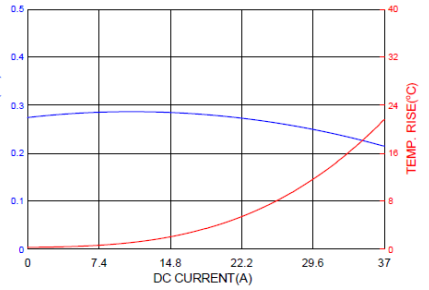
GTVS107975P-R21M



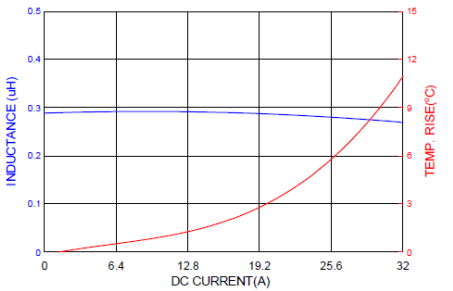
GTVS107975P-R23M



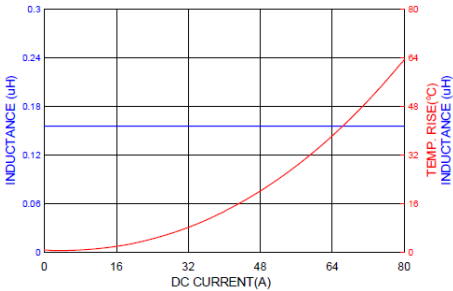
GTVS107975P-R27M



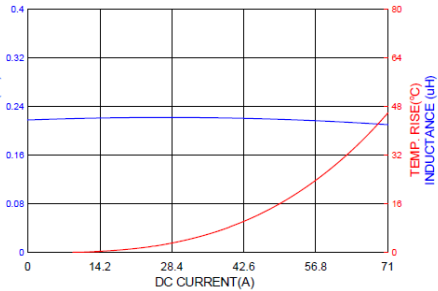
GTVS107975P-R30M



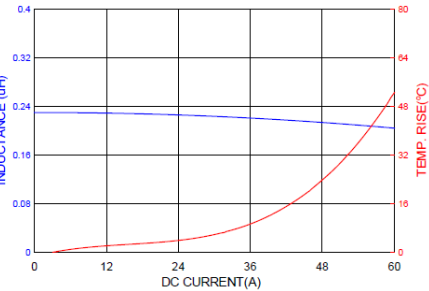
GTVS131308PL-R15M



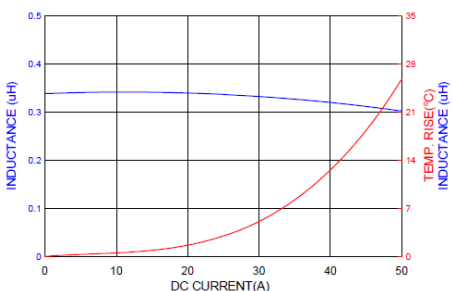
GTVS131308PL-R21M



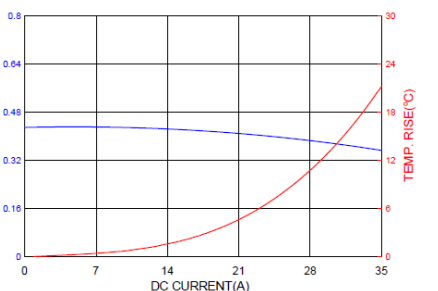
GTVS131308PL-R26M



GTVS131308PL-R32M



GTVS131308PL-R44M





Product Series Code	GTVS	Brand	GOTREND
File Version	GTVS SERIES-V1R0	Editor	Teddy
Established Date	2013.11.27	Description	SMD Power Inductor
Latest Edit Date	2013.11.27	Pages	Page : 6

Reliability :

NO	ITEM	TEST CONDITIONS	Sample Qty / pcs	Spec	Result																
1	Dimension 本體相關呎吋	Actual Size ...	10	Meet Spec	ok																
2	Thermal Shock (Temperature Cycle) 溫度循環試驗	Temperature:-40 ° C/ +125 ° C kept stabilized for 30 minutes each Cycle: 100 Cycles(power off)	10	Elec. no variation Appearance no deformation	ok																
3	Humidity Resistance 耐濕試驗	Humidity: 90%~ 95% RH Temperature: 40± 2 ° C Test Time: 120± 2 Hours	10	Elec. no variation Appearance no deformation	ok																
4	High Temperature 耐熱試驗	Temperature: 125± 2 ° C Humidity: 20% Testing Time: 120± 2 Hours	10	Elec. no variation Appearance no deformation	ok																
5	Low Temperature 耐寒試驗	Temperature: -40 ± 2 ° C Time: 120± 2 Hours	10	Elec. no variation Appearance no deformation	ok																
6	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± 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	10	Elec. no variation Appearance no deformation	ok
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																		
7	Vibration 振動性試驗	Frequency: 10Hz~55Hz Amplitude: 1.5mm Direction: X,Y,Z Time: 2 Hours each	10	Elec. no variation Appearance no deformation	ok																
8	Dipping Verification 吃錫性試驗	Temp Control Solder @ Temp 230± 5 ° C / 3 Sec 吃錫面積必須 > 75%	10	Elec. no variation Appearance no deformation	ok																
9	IR Reflow Soldering 焊錫性試驗	Go through real SMT IR-Reflow.... Solder Temp.: 230± 5 ° C Time: 90 Sec. Cycles: x 1	10	Elec. no variation Appearance no deformation	ok																
10	Soldering Heat Resistance 耐熱 焊性試驗	Preheat:120 ~ 150 ° C (6 sec) Solder:H63A(eutectic solder) Solder Temp.: 260 ± 5 ° C Flux: Rosin Dip time: 10± 1 seconds	10	Elec. no variation Appearance no deformation	ok																
11	Bending Strength 折斷力試驗		10	Elec. no variation Appearance no deformation Endure 2kg.	ok																
11	Flexure Strength 彎曲試驗		10	Elec. no variation Appearance no deformation	ok																
12	Terminal Strength 推/ 拉力試驗		10	After solder between copper plate and terminals of coil, push in two directions Of X,Y with 2.0kg must no crack	ok																
13	High-Voltage 高壓電擊試驗	100 V DC between core & winding	10	Elec. no variation Appearance no deformation	ok																
14	ORT:on going reliability test 負載電氣試驗	Elec loading & spec test... base on Spec for approval	10	Elec. no variation Appearance no deformation	ok																