PRODUCT SPECIFICATION

DOCUMENT NO. ENS000139520				
DESCRIPTION	**DRAWN BY**	**DESIGNED BY**	**CHECKED BY**	**APPROVED BY**
AIP0630GX Series	Irene	Peter	Logan	Phil

Molding Type Power Choke

Scope

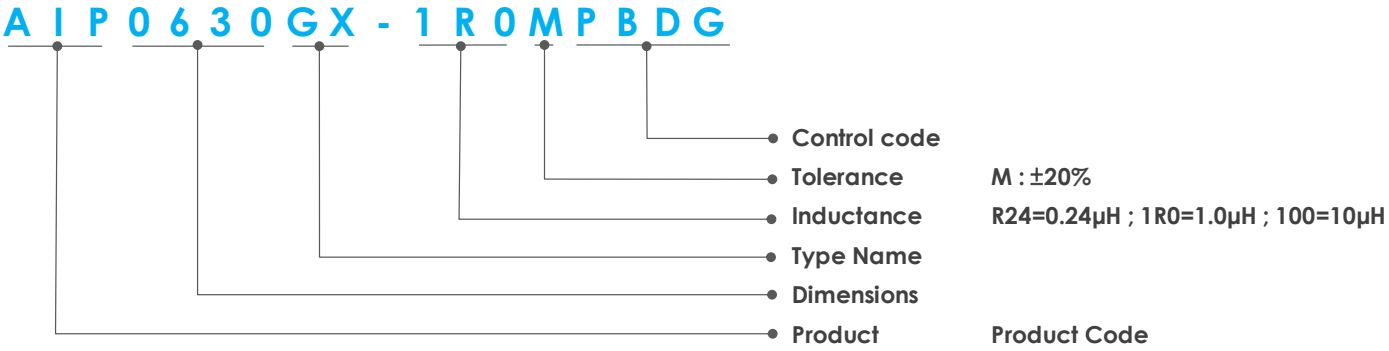
Features

- Thickness max. 3mm.
- Flux shielded structure, low radiation.
- High saturation current realized by coil design and alloy powder.
- Low power loss and temperature rising realized by low DC Resistance.
- Low AC loss realized by powder, binder and structure design.
- 100% Pb free meet RoHS standard.

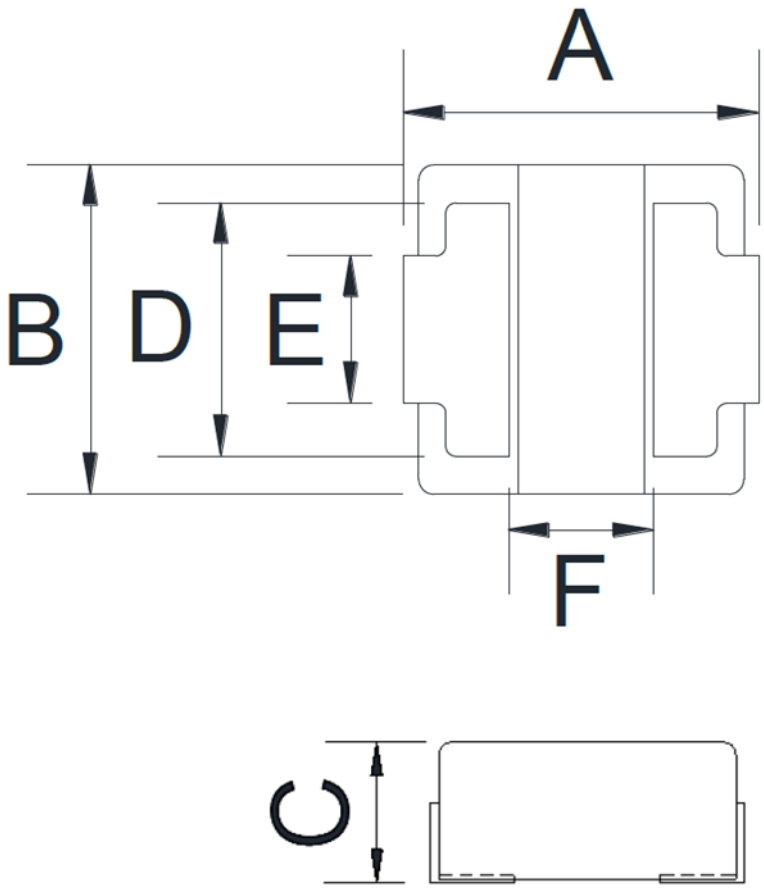
Applications

- 5G
- ADAS / Infotainment
- Server / Industry / VGA
- Desktop / NB / MB
- DC to DC converter in low profile high current system such as CPU, VRM, V-core, VGA card…etc.

Explanation of Part Number

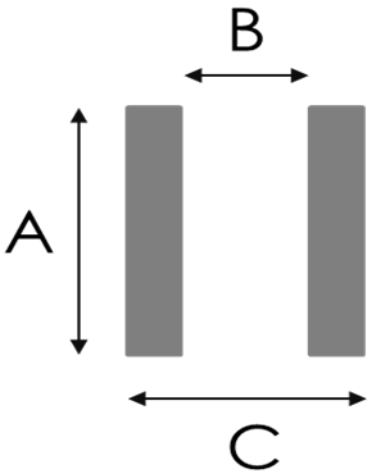


Dimensions



Code	Dimensions[mm]
A	7.2 ± 0.4
B	6.5 ± 0.4
C	3.0 max
D	5.0 ± 0.3
E	3.0 ± 0.3
F	3.6 max

Recommended land pattern

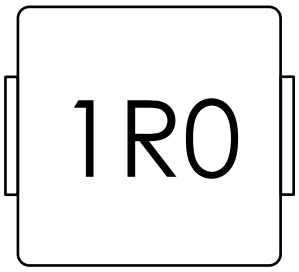


Code	Dimensions[mm]
A	5.5
B	2.6
C	5.5

Marking

The inductor is marked with a 3-digit code (using ink for marking).

Example: R24 means 0.24μH
1R0 means 1.0μH
100 means 10μH



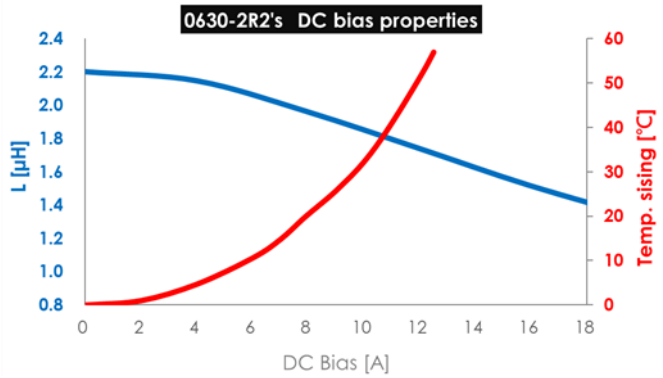
Specifications

0630 Series PN	Li [μH]	Rdc [mΩ]		Isat [A]		Irms [A]		SRF [MHz]
	Initial Value	DC resistance		Li drop 30%		Temp. rising 40°C		Resonance
	+/-20%	typ.	max.	typ.	max.	typ.	max.	typ.
AIP0630GX-2R2MPBDG	2.2	117	13.1	15.9	14.3	10.4	9.9	32

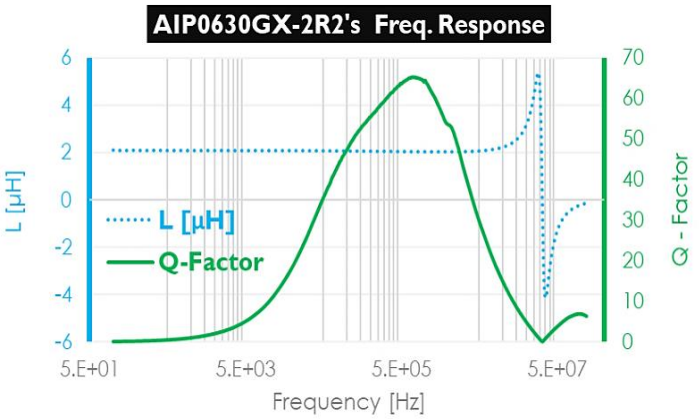
Notes

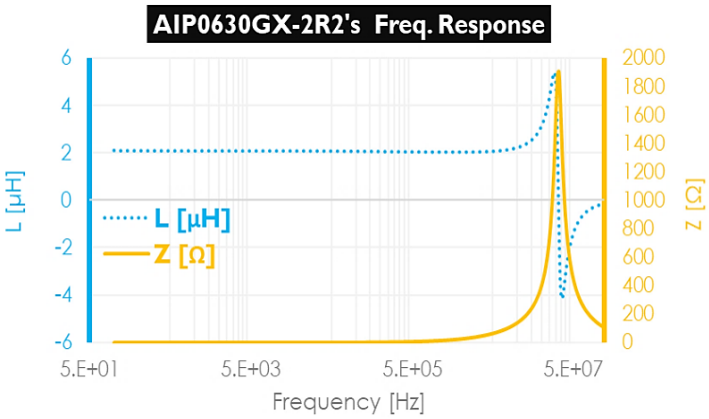
1. Test environment of all data is referenced to 25°C ambient.
2. Test conditions: 1MHz, 1Vrms.
3. Isat : DC current (A) that will cause L to drop approximately 30%.
4. Irms : DC current (A) that will cause an approximate ΔT of 40°C(reference ambient temperature is 25°C).
5. Operating temperature range – 40°C to +125°C.
6. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. PCB land pattern, trace size - thick, circuit design and proximity to other components are all the factors will affect the temperature performance of the device. Therefore should be approved in application conditions and end product.
7. Rdc Measured with DC resistance meters RM3543(HIOKI) or equivalent.

Bias Properties

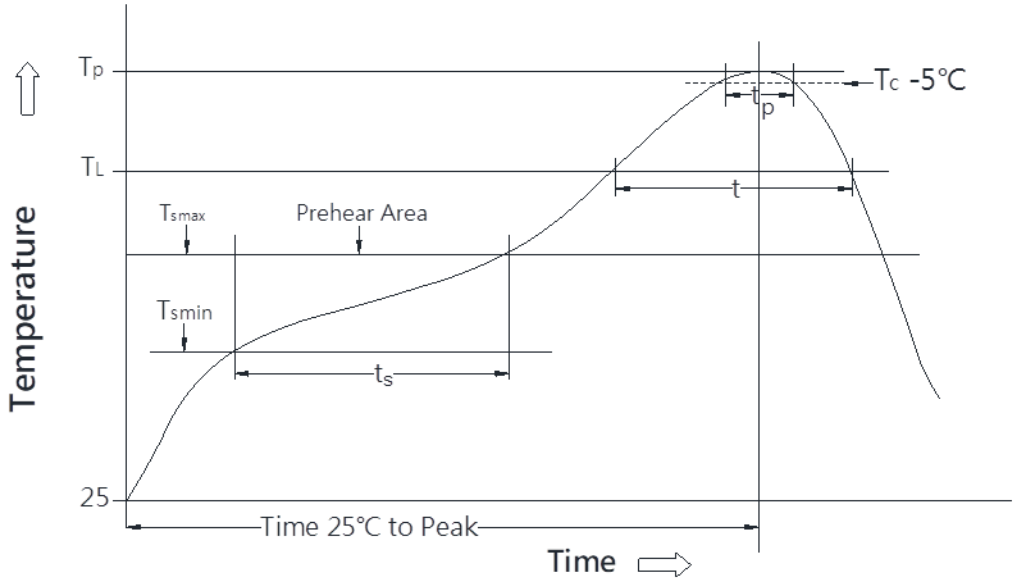


Frequency Response





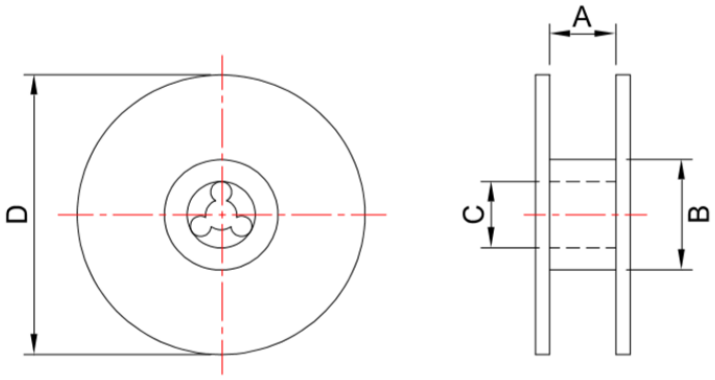
Recommendable Reflow Soldering



Profile Feature	Pb-Free Assembly
Preheat - Temperature Min(T_{smin}) - Temperature Max(T_{smax}) - Time (t_s) from (T_{smin} to T_{smax})	150°C 200°C 60-120 seconds
Ramp-up rate (T_L to T_P)	1°C / second max.
Liquidous temperature(T_L) Time (t) maintained above T_L	217°C 60-120 seconds
Peak package body temperature(T_P)	250°C
Time within 5°C of actual peak temperature(t_p)	10-20 seconds
Ramp-down rate (T_P to T_L)	6°C / second max.
Time 25°C to peak temperature	6 minutes max.
Number of Reflow cycles allowed	2 cycles max.

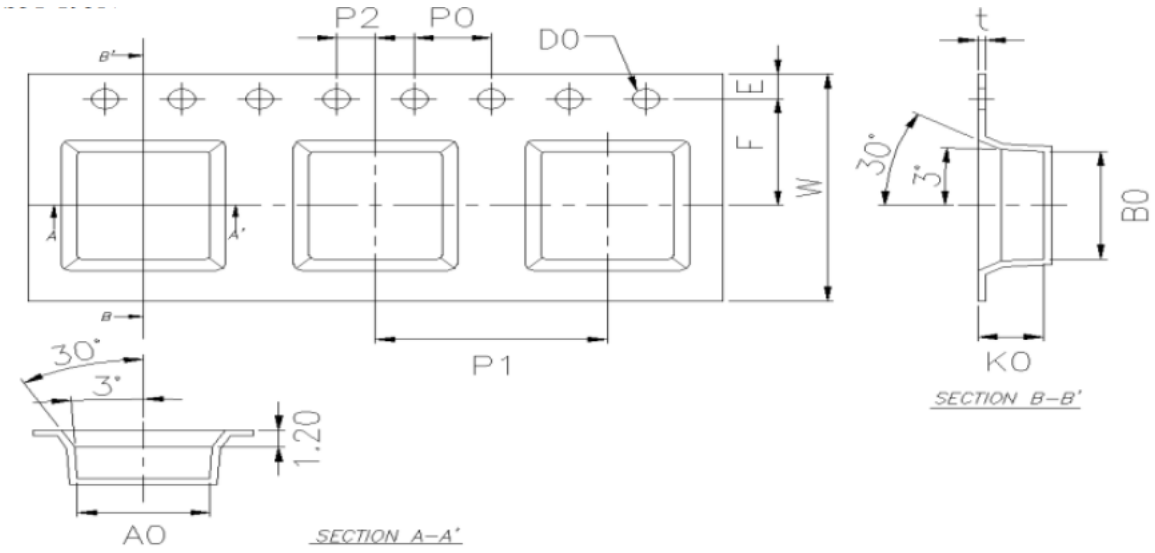
Tape & Reel

► Reel dimensions (unit : mm)



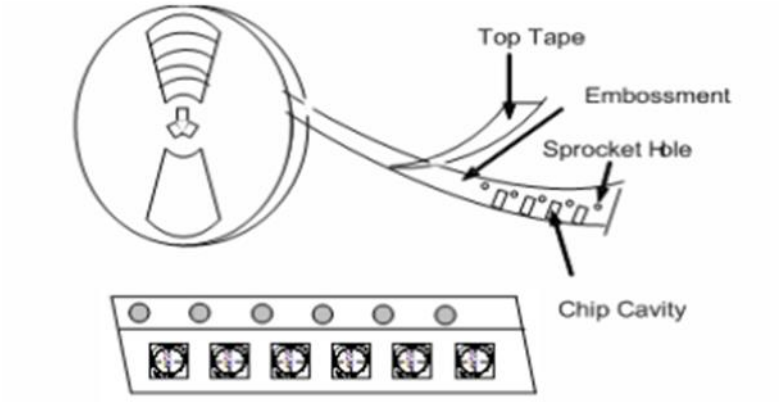
Type	A	B	C	D
13'x16	16.3±0.2	100±0.2	13+0.3/-0.1	330±1.0

► Tape dimensions (unit : mm)



Type	W	P1	P0	P2	D0	D1	t	A0	B0	K0	E	F
AIP0630GX	16 ±0.3	12 ±0.1	4 ±0.1	2 ±0.1	1.5 +0.1	NIL	0.4 ±0.05	6.9 ±0.1	7.6 ±0.1	3.4 ±0.1	1.75 ±0.1	7.5 ±0.1

► Taping Drawings



► Taping Package Storage Condition

Storage Temperature: 5 to 40°C

Relative Humidity: < 65%RH

Storage Time: 12 months max

► Label Marking

The label specified as follows shall be put on the side of reel.

(1) Part No.

(2) Quantity.

(3) Lot No.

* Part No. And Quantity shall be marked on outer packaging.

► Quantity of products in the package

Type	Reel	Inner Box	Outer Box
AIP0630GX	1000	2000	10000