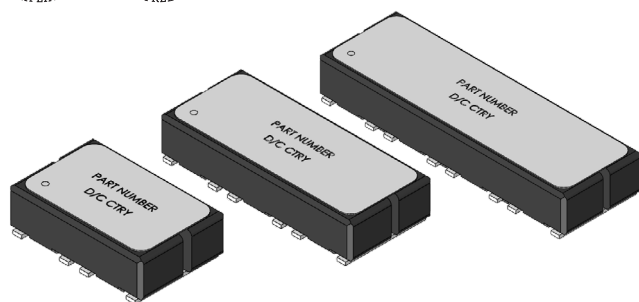


# Power Beads - PGL727XHLT Series

## Coupled Inductor

**YAGEO**  
PULSE GROUP



### Features and Benefits:

- ⊗ High current multi-phase coupled inductor
- ⊗ Low profile with 4 mm max height
- ⊗ Operating frequency up to 3.0 MHz
- ⊗ Ferrite core material
- ⊗ For use with ADI/Maxim Integrated Products Multi - Phase Controllers

### Electrical Specifications @ 25°C - Operating Temperature -40°C to +125°C

| Part Number | OCL<br>@ 0 Ade (nH±20%) |                |                |                | OCL<br>@ Isat1 &2<br>(nH MIN) | Isat1<br>@ 25°C (A) | *Isat2<br>@ 105°C<br>(A TYP) | DCR<br>(mΩ)<br>Max. | SCL<br>@ 0 Adc<br>(nH) | SCL<br>@ Isat 3<br>(nH MIN) | Isat3<br>@ 105°C<br>(A) |
|-------------|-------------------------|----------------|----------------|----------------|-------------------------------|---------------------|------------------------------|---------------------|------------------------|-----------------------------|-------------------------|
|             | PHASE 1<br>1-2          | PHASE 2<br>3-4 | PHASE 3<br>5-6 | PHASE 4<br>7-8 |                               |                     |                              |                     |                        |                             |                         |
| PGL7272HLT  | 110                     | 110            | \              | \              | 70                            | 23                  | 20                           | 0.20                | 25±20%                 | 16                          | *73                     |
| PGL7273HLT  | 110                     | 120            | 110            | \              | 70                            | 23                  | 20                           | 0.20                | 25±20%                 | 16                          | *73                     |
| PGL7274HLT  | 110                     | 120            | 120            | 110            | 70                            | 23                  | 20                           | 0.20                | 25±20%                 | 16                          | *73                     |

#### Notes:

- Open circuit inductance (OCL) test parameters: 1MHz, 0.1V, 0Adc.
- Isat1 & Isat2 for OCL, Isat3 for SCL are the DC current which cause the inductance drops by 20% TYP.
- Short circuit inductance (SCL):
  - PGL7272HLT: Measure (1-4) with shorted (2,3), and divide by 2.
  - PGL7273HLT: Measure (1-6) with shorted (2,3), (4,5), and divide by 3.
  - PGL7274HLT: Measure (1-8) with shorted (2,3), (4,5), (6,7) and divide by 4.
- The items on indicated \* are guaranteed by design and verified by design stage. Will not test for production.
- DCR: Tested from point 1/2, 3/4, 5/6, 7/8 from specific points
- The heating current, or rms current, per phase is calculated to produce a 45°C rise above the ambient temperature.
- In high volt\*time applications, additional heating in the component can occur due to core losses in the inductor which may necessitate derating the current in order to limit the temperature rise of the component. To determine the approximate total losses (or temperature rise) for a given application, the coreloss and temperature rise curves can be used.
- The temperature of the component (ambient plus temperature rise) must be within the stated operating range.
- Optional tape and reel packaging can be ordered by adding a T suffix to the part number (ie: PGL7272HLT becomes PGL7272HLT.T). Pulse complies to the industry standard tape and reel specification EIA481.



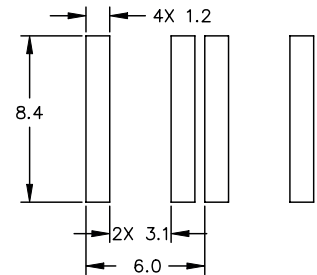
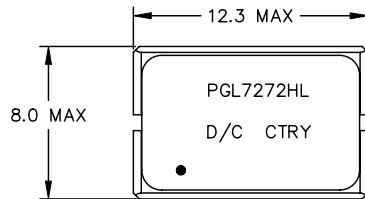
Singel 3 | B-2550 Kontich | Belgium | Tel.+32(0)3 458 30 33  
info@alcom.be | www.alcom.be  
Rivium 1e straat 52 | 2909 LE Capelle aan den IJssel | The Netherlands  
Tel.+31(0)10 288 25 00 | info@alcom.nl | www.alcom.nl

# Power Beads - PGL727XHLT Series Coupled Inductor

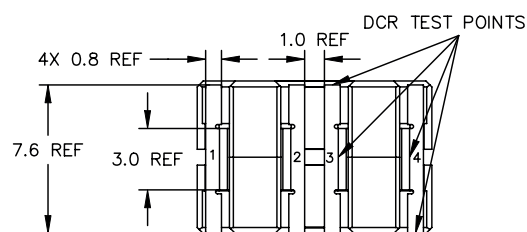
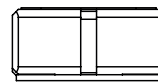
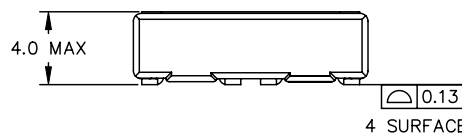
## MECHANICALS

## SCHEMATIC

### PGL7272HLT



SUGGESTED LAND PATTERN



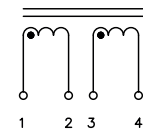
**Weight:** 1.48g

**Dimensions:** mm

Unless stated otherwise  
the tolerance on the  
listed dimensions are:

X  $\pm 0.25$

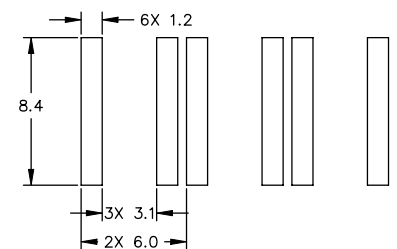
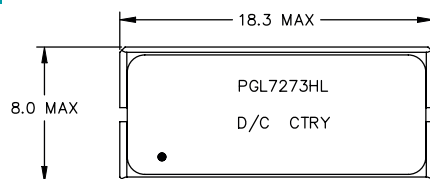
XX  $\pm 0.13$



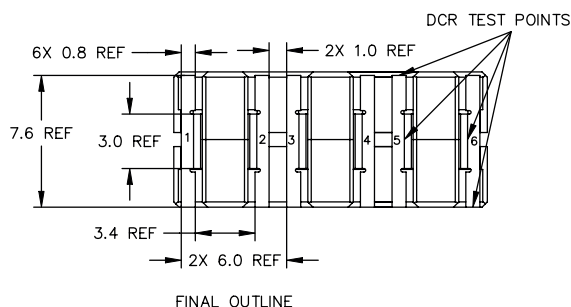
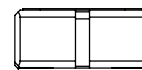
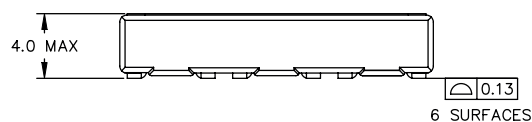
## MECHANICALS

## SCHEMATIC

### PGL7273HLT



SUGGESTED LAND PATTERN



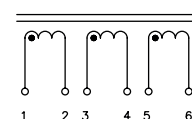
**Weight:** 2.2g

**Dimensions:** mm

Unless stated otherwise  
the tolerance on the  
listed dimensions are:

X  $\pm 0.25$

XX  $\pm 0.13$

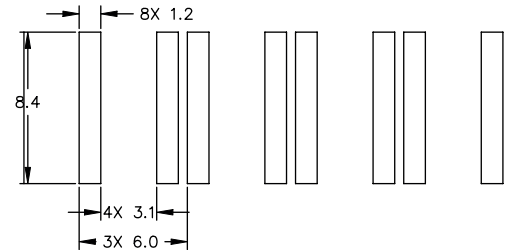
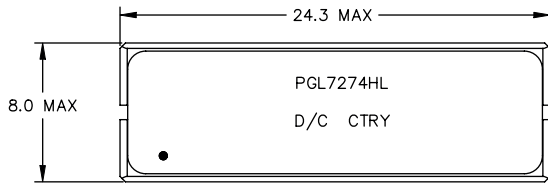


# Power Beads - PGL727XHLT Series Coupled Inductor

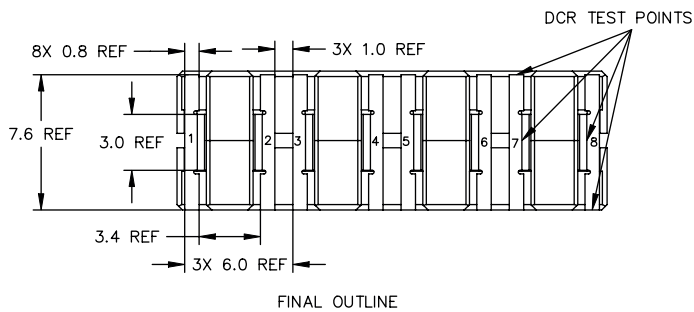
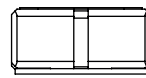
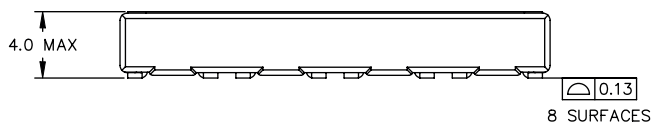
## MECHANICALS

## SCHEMATIC

### PGL7274HLT



SUGGESTED LAND PATTERN



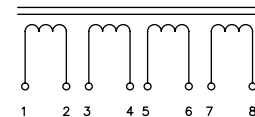
**Weight:** 3.0g

**Dimensions:** mm

Unless stated otherwise  
the tolerance on the  
listed dimensions are:

X  $\pm 0.25$

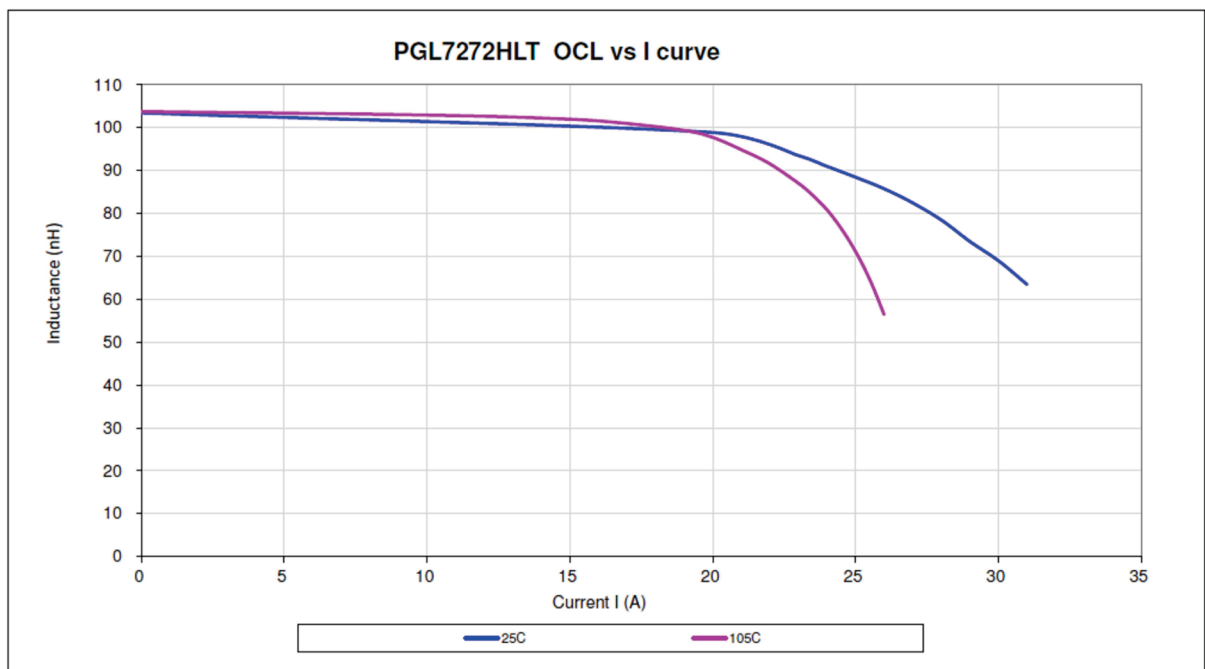
XX  $\pm 0.13$



SCHEMATIC

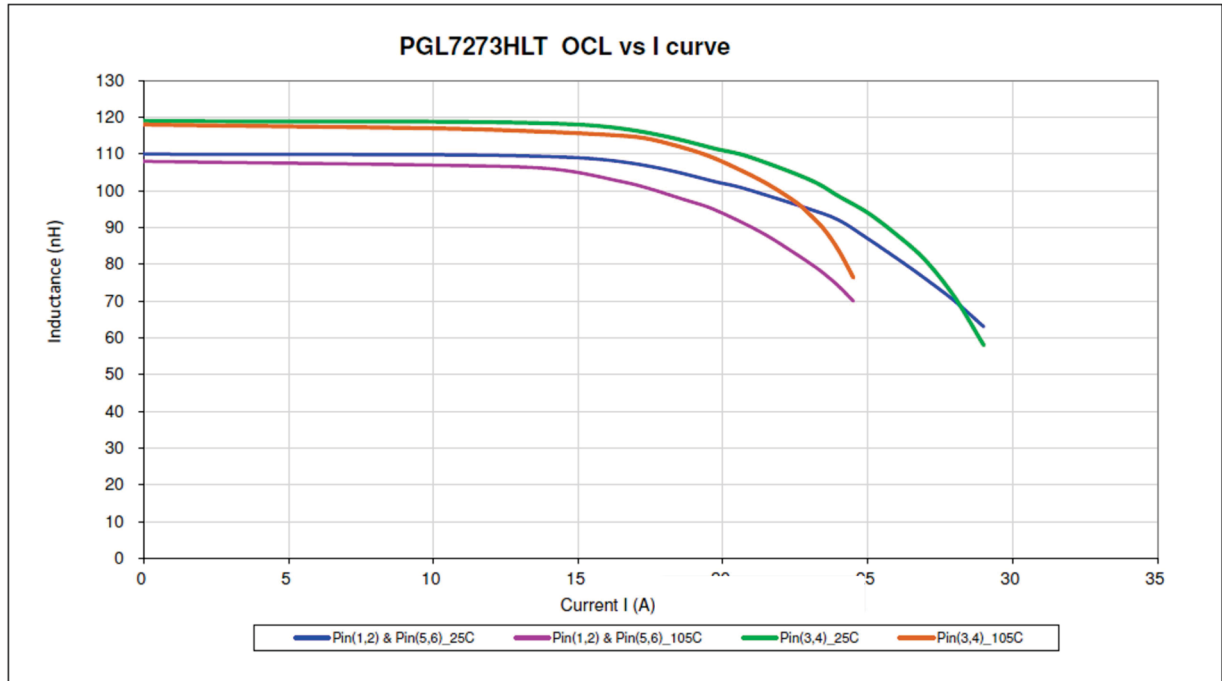
## OCL vs I curve

### PGL7272HLT



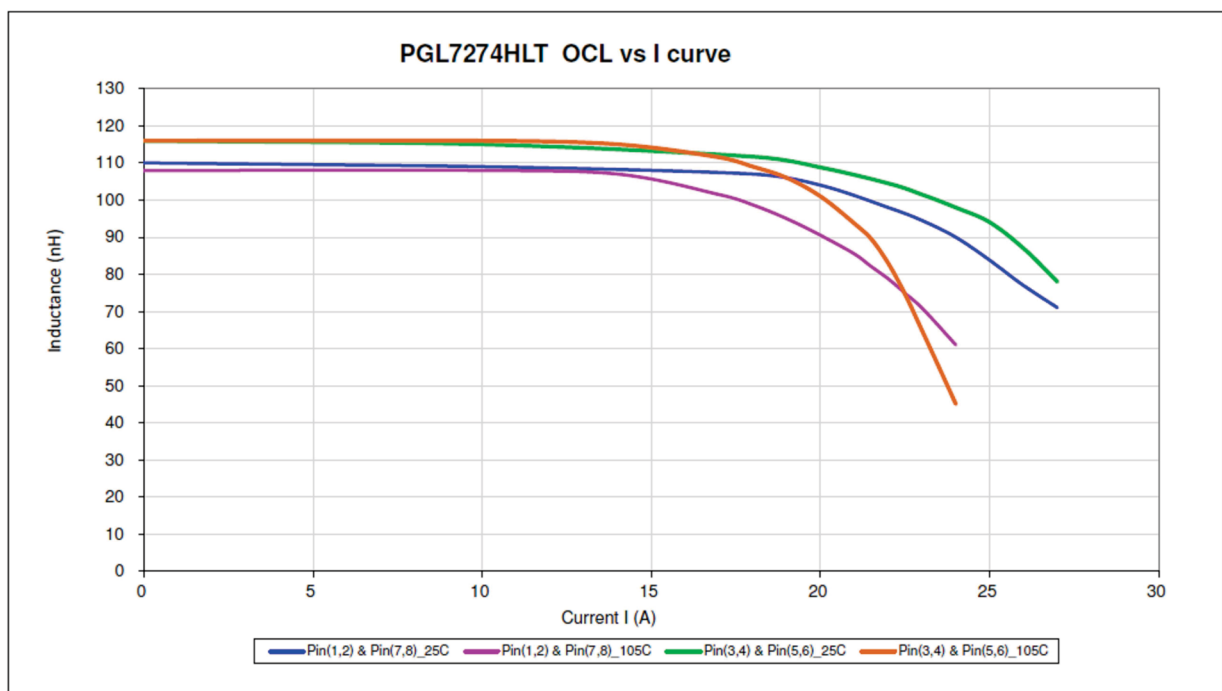
## OCL vs I curve

PGL7273HLT



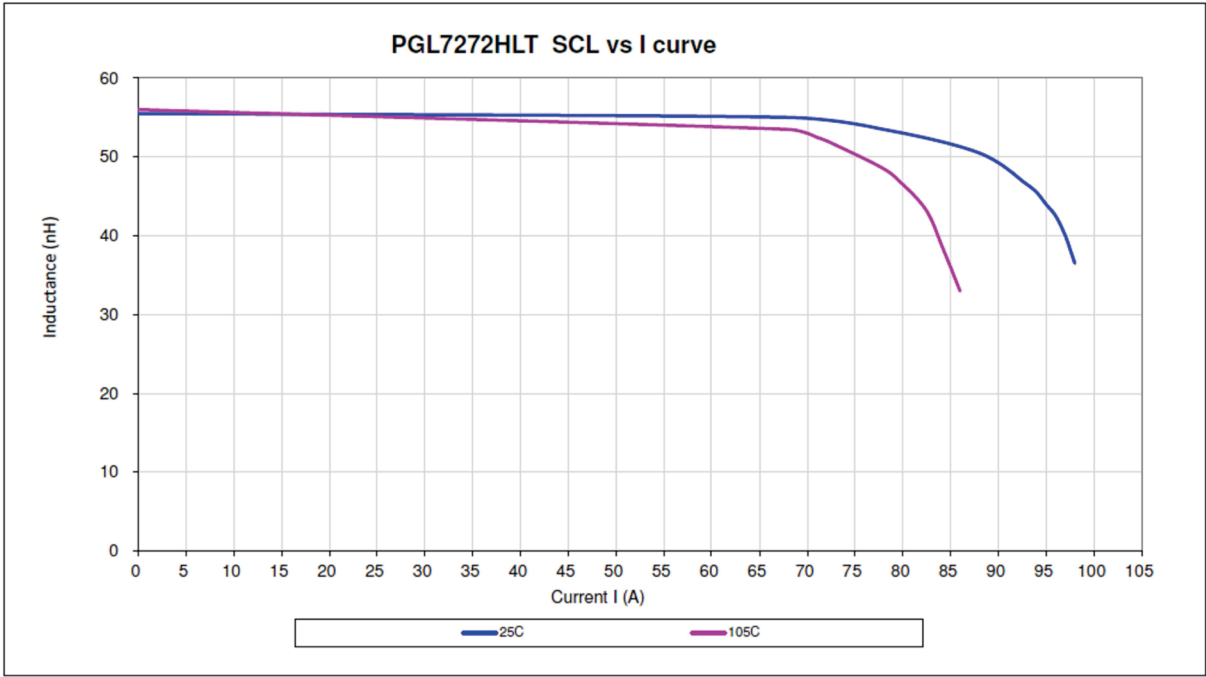
## OCL vs I curve

PGL7274HLT



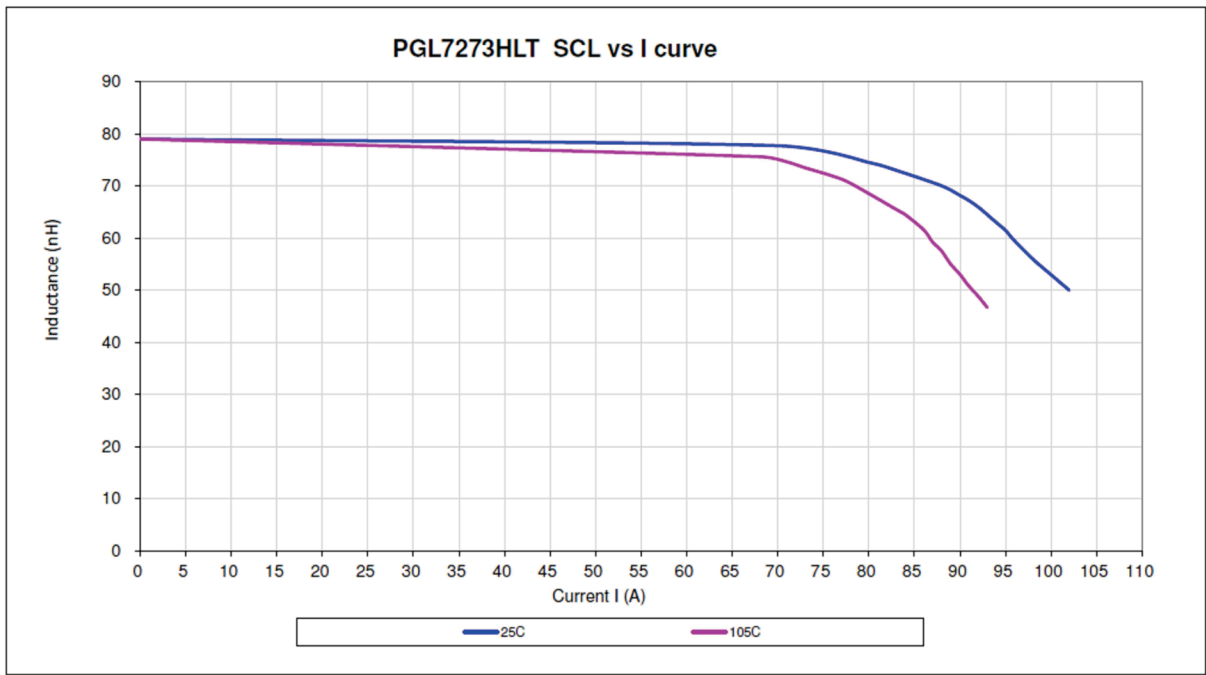
SCL vs I curve

PGL7272HLT



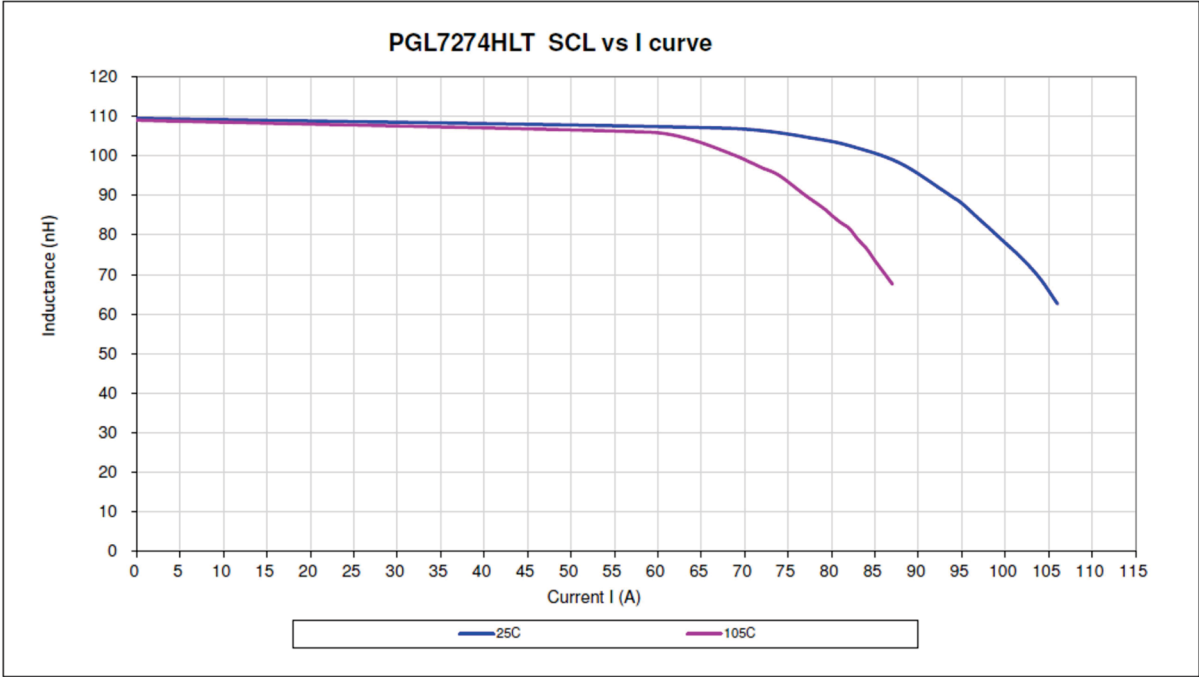
SCL vs I curve

PGL7273HLT



SCL vs I curve

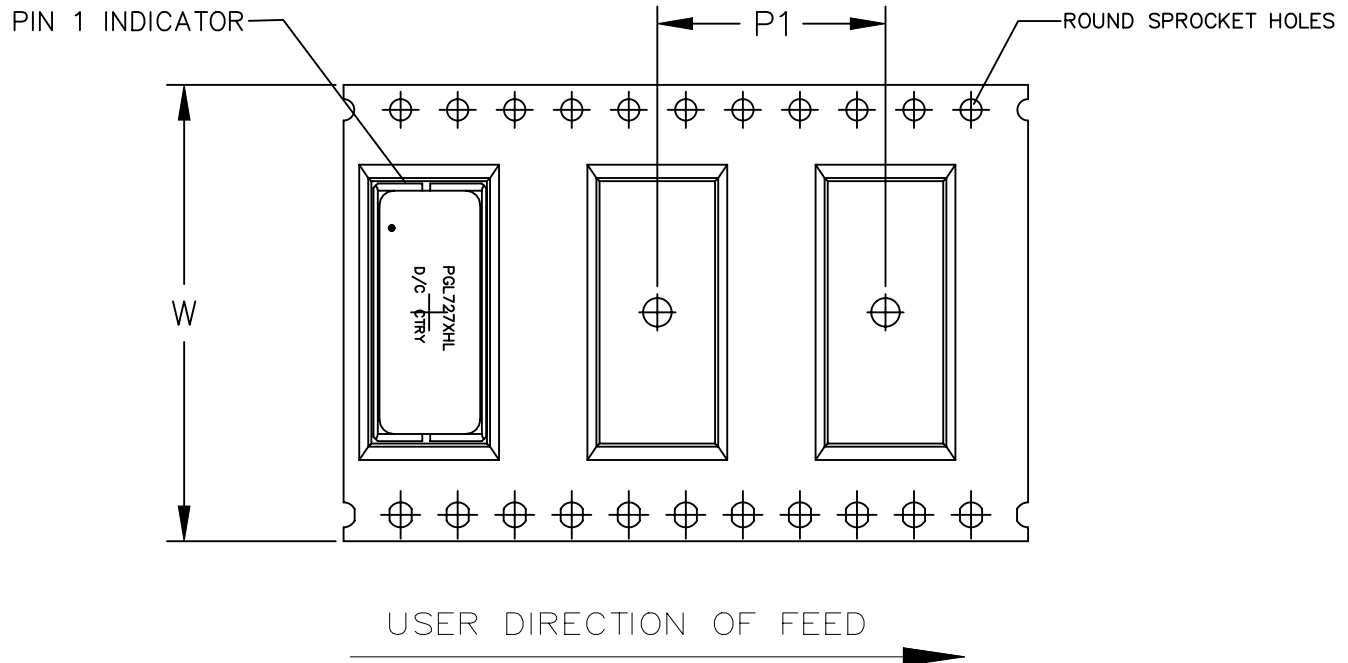
PGL7274HLT



# Power Beads - PGL727XHLT Series Coupled Inductor

## TAPE AND REEL PACKING DETAILS

PGL727XHLT



### SURFACE MOUNTING TYPE, REEL/TAPE LIST

| PART NUMBER | REEL SIZE (mm) | TAPE SIZE (mm) |    |                | QTY      |
|-------------|----------------|----------------|----|----------------|----------|
|             | A              | P <sub>1</sub> | W  | K <sub>0</sub> | PCS/REEL |
| PGL7272HLT  | Ø330           | 16             | 24 | 4.0            | 900      |
| PGL7273HLT  | Ø330           | 16             | 32 | 4.1            | 900      |
| PGL7274HLT  | Ø330           | 16             | 44 | 4.1            | 900      |



Singel 3 | B-2550 Kontich | Belgium | Tel.+32(0)3 458 30 33  
info@alcom.be | www.alcom.be  
Rivium 1e straat 52 | 2909 LE Capelle aan den IJssel | The Netherlands  
Tel.+31(0)10 288 25 00 | info@alcom.nl | www.alcom.nl

### For More Information:

Americas - [prodinfo\\_power\\_americas@yageo.com](mailto:prodinfo_power_americas@yageo.com) | Europe - [prodinfo\\_power\\_emea@yageo.com](mailto:prodinfo_power_emea@yageo.com) | Asia - [prodinfo\\_power\\_asia@yageo.com](mailto:prodinfo_power_asia@yageo.com)

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2023. Pulse Electronics, Inc. All rights reserved.

YAGEO Corporation and its affiliates do not recommend the use of commercial or automotive grade products for high reliability applications or manned space flight.