SMT Power Inductor

PSiP Power Bead - PGL6477.XXXHL Series







- Ø Designed for PSiP Power Supply
- Current Rating 22A
- Inductance Range: 105nH to 215nH
- e Height: 5.4mm Max
- Footprint: 6.45mm x 6.45mm Max

| Electrical Specifications @ 25°C – Operating Temperature –40°C to +125°C | | | | | | | | | |
|--|-----------------------------------|------------------------------------|---------------------|--------------|--|--------|--------|---|----------|
| Part Number | Inductance ¹ @OA DC | Inductance ² @Irated | Irated ³ | DCR⁴ (mΩ) | Saturation Current ⁵ (A TYP) | | | Heating Current ⁶ (A TYP) | Height |
| | nH±15% | (nH TYP) | (A) | | @25°C | @100°C | @125°C | TYP. | (11111) |
| PGL6477.101HLT | 105 | 105 | 22 | 0.4±12% | 50 | 39.5 | 37 | 22 | 5.2±0.2 |
| PGL6477.121HLT | 117 | 116 | 22 | | 43 | 34 | 33 | | 5.2±0.2 |
| PGL6477.141HLT | 140 | 138 | 22 | | 36 | 28.5 | 27 | | 5.2±0.2 |
| PGL6477.161HLT | 160 | 158 | 22 | | 31 | 24.5 | 23 | | 5.15±0.2 |
| PGL6477.181HLT | 184 | 177 | 20 | | 27 | 21 | 20 | | 5.15±0.2 |
| PGL6477.201HLT | 200 | 185 | 19 | | 25 | 19 | 18 | | 5.15±0.2 |
| PGL6477.221HLT | 215 | 205 | 17.5 | | 23 | 17.5 | 16 | | 5.15±0.2 |

Notes

1. Inductance measured at 100KHz, 0.1V

Inductance at lrated is the value of the inductance at @25°C at the listed rater current
The rated as listed is either the saturation current (25°C or 100°C) or the heating current depending on which value is lower.

4. The nominal DCR is measured from point (1) to point (2)

5. The saturation current is the current is the current which causes the inductance to drop by approximately 20% at the stated ambient temperatures (25°C, 100°C, 125°C). This current is determined by placing the component in the specified ambient environemnt and applying a short duration Pulse current (to eliminate self-healing effects) to the component.

6. The heating current is the DC current ehich causes the part temperature to increase by approximately 40°C when used in a typical application.

7. In high volt*time applications, additional heating in the compnenet can occur due to core losses in the inductor which may neccessitate derating the current in order to limit the temperature rise of the component. To detemine the approximate total lossed (or temperature rise) for a given application, the coreloss and temperature rise curves can be used.

8. Parts with the HLT suffix are sold in tape and reel packgingg. Pulsecomplies to industry standard tape and reel specification EIA-481. The tape and reel for this product has a width (W=16), pitch (P0=12mm) and depth (Ko=5.6mm). Samples of these parts can be ordered by removing the HLT suffix and replacing with HL.

9. The temperature of the component (ambient plus temoperature rise) must be within the stated operating temperature range.

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Typical Performance Curves





P929.Pre (08/22)



PGL6477.XXXHL L vs I curve 100°C



PGL6477.XXXHL L vs I curve 125°C



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Core Loss

PGL6477.XXXHL Core Loss 1.0 800 KHz 500 KHz 700 KHz 600 KHz . 0.8 400 KHz CoreLoss (W) , 300 KHz 0.6 0.4 200 KHz 0.2 100 KHz 0.0 0 400 800 1200 1600 2000 2400 2800 3200 3600 4000 4400 ΔB (Gauss)



Temp Rise vs Power Dissipation

PGL6477.XXXHLT Temp Rise





For More Information:

Americas - prodinfo_power_americas@yageo.com | Europe - prodinfo_power_emea@yageo.com | Asia - prodinfo_power_asia@yageo.com

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Mouser Electronics

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