SMT Power Inductors

Power Beads - PGL6380.XXXHLT Series





- Current Rating: Over 117A peak
- @ Inductance Range: 100nh to 200nH
- @ Height: 11.15mm Max
- *Footprint:* 12.0mm x 6.0mm Max

Electrical Specifications @ 25°C — Operating Temperature – 40°C to +125°C												
Part Number	Inductance ¹ @ 0A _{DC} (nH +/- 15%)	Inductance ² @ I sat (nH MIN)	Irated ³ (A)	DCR (1-4) mohm (+/- 10%)	DCR (2-3) MAX (+/- 10%)	Saturation Current ⁵ (A TYP)		Heating Current (1-4) A TYP	Heating Current (2–3)	HiPot (1-2)		
						25°C	100°C	(I-4 <i>)</i> A I IP	A TYP	(Vdc)		
PGL6380.101HLT	100	70	77	0.125	0.37	117	100	77	45	100Vdc		
PGL6380.121HLT	120	84	77			102	87					
PGL6380.151HLT	150	105	77			85	75					
PGL6380.171HLT	170	119	70			70	60					
PGL6380.201HLT	200	140	59			59	50					

NOTES:

- 1. Inductance measured at 100kHz, 1.0mVrms.
- 2. Inductance at Irated is the value of the inductance at 25°C at the listed rated current.
- 3. Rated Current is the DC current which causes the part temperature to increase by approximately 40C. It is a calculated value and will vary within application based on ambient temperature, air flow, surrounding component temperature and heat sinking. Part temperature should not exceed 125C under worst case operating conditions. Part temperature should be verified in the end application.
- 4. The nominal DCR is measured at point 2, as shown below on the mechanical drawing.
- 5. The saturation current is the typical current which causes the inductance to drop by 20% at the stated ambient temperatures (25°C, 100°C). This current is determined by placing the component in the specified ambient environment and applying a short duration pulse current (to eliminate self-heating effects) to the component.
- 6. In high volt*time applications, additional heating in the component 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 determine the approximate total losses (or

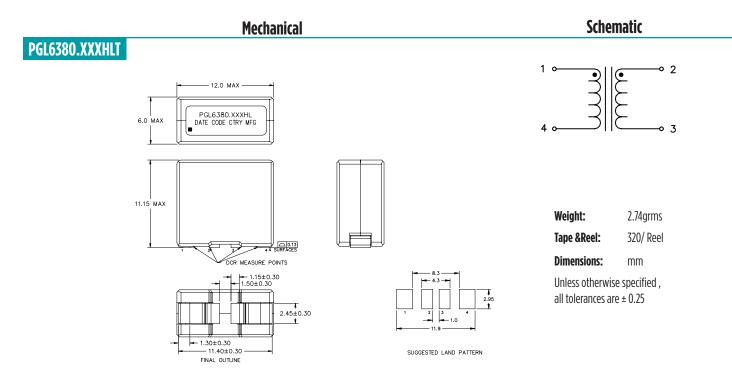
temperature rise) for a given application, the coreloss and temperature rise curves can be used.In high volt*time applications, additional heating in the component can occur due to core losses in the inductor which may neccessitate derating the current in order to limit the temperature rise of the component.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

- Parts with the HLT suffix are sold in tape and reel packaging. Pulse complies to industry standard tape and reel specification EIA-481. The tape and reel for this product has a width (W=24mm), pitch (Po=12mm) and depth (Ko=12.2mm). Samples of these parts can be ordered by removing the HLT suffix and replacing with HL.
- 8. The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.
- 9. Sample Value only. Guaranteed by Design and not tested in production
- 10. HiPot: (1-4) to (2-3), 100Vdc, 1.0mA, 2sec

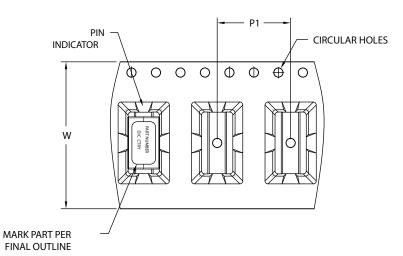
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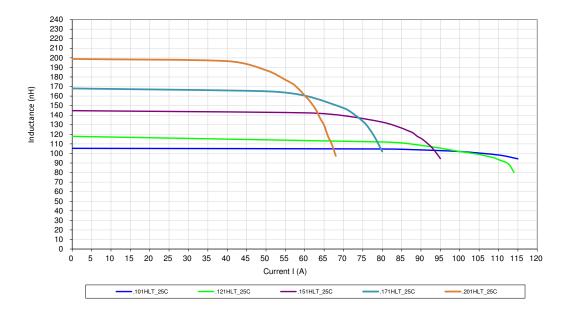


TAPE & REEL INFO



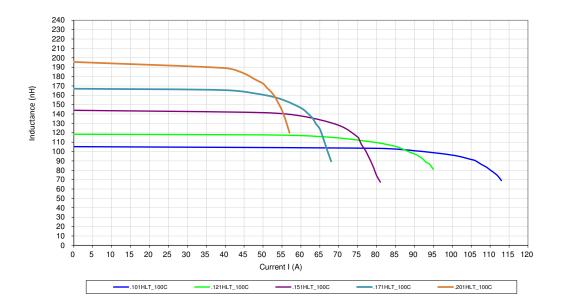
SURFACE MOUNTING TYPE, REEL/TAPE LIST									
TVDF	RE	QTY							
TYPE	W ± 0.30	P0 ± 0.1	KO	PCS/REEL					
PGL6380.XXXHLT	24.0	12.0	12.2	320					

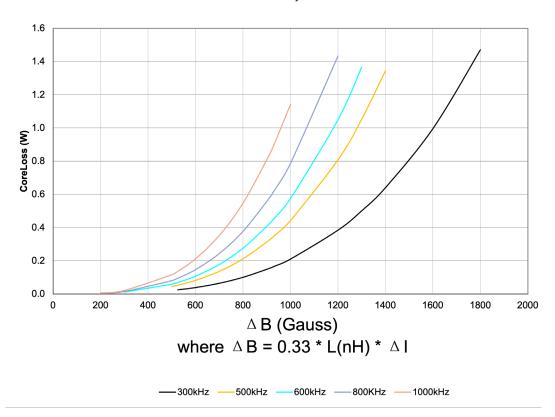




PGL6380.XXXHLT, L vs I, Curve 25°C

PGL6380.XXXHLT, L vs I, Curve 100°C





PGL6380.XXXHLT, Core Loss

For More Information:

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