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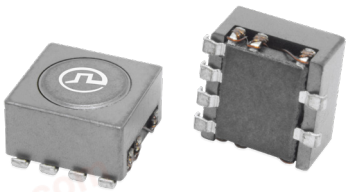
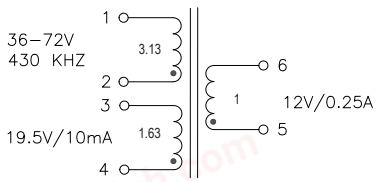
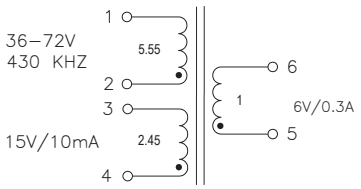
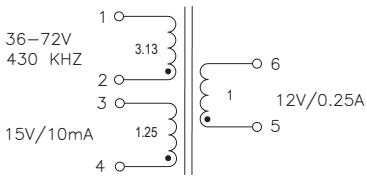
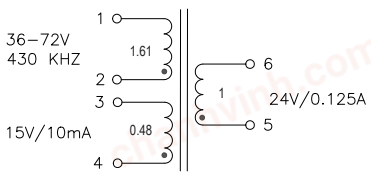
High Frequency Wire Wound Transformers

MiniFlyback Platform - SMT - PH9585.XXXNL

Pulse
a YAGEO company



- ***Power Range:*** *Up to 3 W*
- ***Height:*** *3.6 mm Max*
- ***Footprint:*** *6.4 mm x 6.2 mm Max*
- ***Topology:*** *Flyback*

Electrical Specifications @ 25°C - Operating Temperature -40°C to +125°C[1]				Schematic
PH9585.001NL	INDUCTANCE	1-2	95 ±25% µH	
	Ldc	1-2	65 uH MIN. AT 0.27ADC	
	LK.INDUCTANCE	1-2 WITH 3, 4, 5, 6 SHORTED	1.7 µH MAX	
	DCR	1-2	1.63 Ω MAX	
		3-4	0.80 Ω MAX	
		5-6	0.63 Ω MAX	
	HIPOT	1,2,3,4 TO 5,6	2250 VDC, 5S, 0.5mA MAX	
		1,2 TO 3,4	500 VDC, 5S, 0.5mA MAX	
PH9585.002NL	INDUCTANCE	1-2	95 ±25% µH	
	Ldc	1-2	65 uH MIN. AT 0.27ADC	
	LK.INDUCTANCE	1-2 WITH 3, 4, 5, 6 SHORTED	2.5 µH MAX	
	DCR	1-2	1.63 Ω MAX	
		3-4	0.58 Ω MAX	
		5-6	0.35 Ω MAX	
	HIPOT	1,2,3,4 TO 5,6	2250 VDC, 5S, 0.5mA MAX	
		1,2 TO 3,4	500 VDC, 5S, 0.5mA MAX	
PH9585.003NL	INDUCTANCE	1-2	95 ±25% µH	
	Ldc	1-2	65 uH MIN. AT 0.27ADC	
	LK.INDUCTANCE	1-2 WITH 3, 4, 5, 6 SHORTED	1.8 µH MAX	
	DCR	1-2	1.63 Ω MAX	
		3-4	0.60 Ω MAX	
		5-6	0.63 Ω MAX	
	HIPOT	1,2,3,4 TO 5,6	2250 VDC, 5S, 0.5mA MAX	
		1,2 TO 3,4	500 VDC, 5S, 0.5mA MAX	
PH9585.004NL	INDUCTANCE	1-2	95 ±25% µH	
	Ldc	1-2	65 uH MIN. AT 0.27ADC	
	LK.INDUCTANCE	1-2 WITH 3, 4, 5, 6 SHORTED	1.8 µH MAX	
	DCR	1-2	1.63 Ω MAX	
		3-4	0.45 Ω MAX	
		5-6	1.1 Ω MAX	
	HIPOT	1,2,3,4 TO 5,6	2250 VDC, 5S, 0.5mA MAX	
		1,2 TO 3,4	500 VDC, 5S, 0.5mA MAX	

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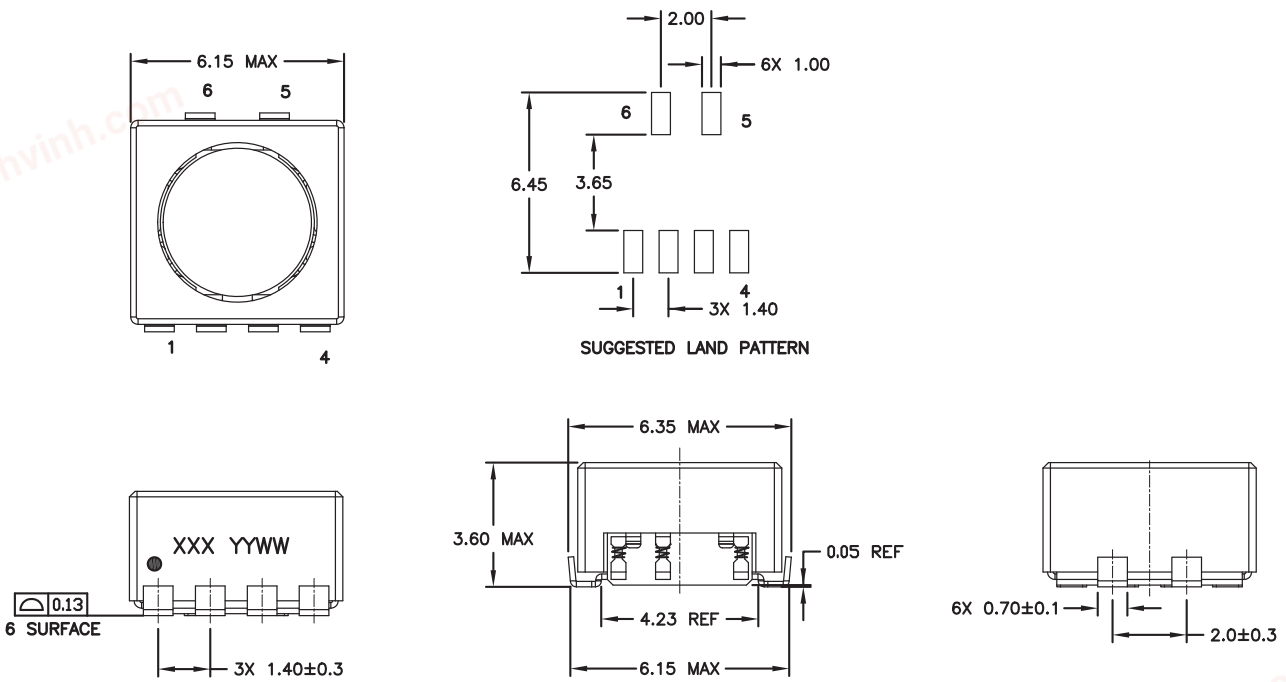
Notes:

1. The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.
2. For flyback topology applications, it is necessary to ensure that the transformer will not saturate in the application. The peak flux density (Bpk) should remain below 260mT. To calculate the peak flux density use the following formula:
   Bpk (mT) = 950* Ipk(A).
3. In high volt-µsec applications, it is important to calculate the core loss of the transformer. Approximate transformer core loss can be calculated as:
   Core Loss (W) = 8.80E-13 * (Freq_kHz)$^{1.28}$ * (ΔB_mT)$^{2.36}$
   where ΔB can be calculated as:
   For Flyback Topology: ΔB _mT= 950* ΔI(A)
   Temperature rise can be calculated as:
   Temperature Rise (°C) = 150 * (Core Loss(W) + Copper Loss (W))
   where Copper Loss can use the following formula:
   Copper Loss (W) = Irms_Primary^2 * DCR_Primary + Irms_Secondary^2*DCR_Secondary
4. Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. (PH9585.001NL becomes PH9585.001NLT). Pulse complies with industry standard tape and reel specification EIA481. The tape and reel for this product has a width (W=16mm), pitch (P_1=12mm) and depth (Ko=3.6mm).

Mechanical

PH9585.XXXNL



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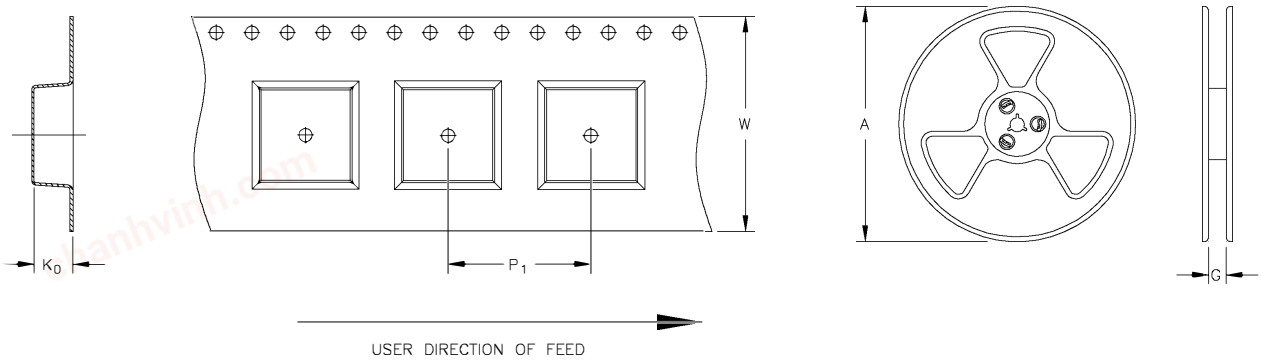
TAPE & REEL INFO



SURFACE MOUNTING TYPE, REEL/TAPE LIST						
PART NUMBER	REEL SIZE (mm)		TAPE SIZE (mm)			QTY
	A	G	P_1	W	K_0	PCS/REEL
PH9585.XXXNLT	Ø330	12	12	16	3.6	1200

For More Information:

Americas - prodinfo_power@pulseelectronics.com | **Europe -** power-apps-europe@pulseelectronics.com | **Asia -** power-apps-asia@pulseelectronics.com

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