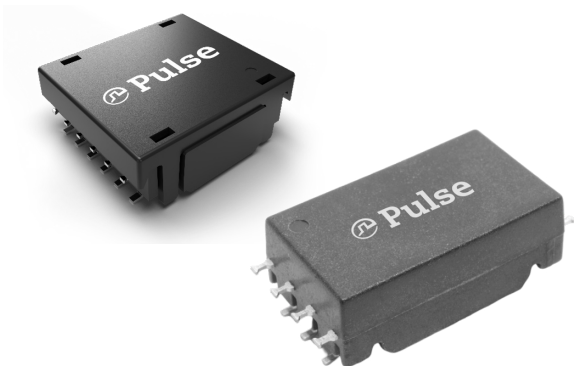
Next Generation approved BMS Transformers
HM2162/66/67/68/69NL for NXP , ADI, TI or Infineon x-channel multi-cell battery monitor IC



Features and Benefits:

- *Fully qualified with leading BMS Silicon*
- *Transformer only design provides for flexible PCB layout*
- *Construction meets IEC 61558 and IEC/UL62368-1*
- *High temperature performance up to +125°C*
- *Automated Winding and Production Process*
- *AEC-Q200 qualified, RoHS and REACH Compliant*

Applications:

- *Ideal for Electric Vehicles (EV), Energy Storage (ESS) and marine or aviation transportation.*

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

Part Number	Inductance (100kHz, 100mVrms)	Number of Channels	Choke fitted	Isolation breakdown (Pri:Sec)	Working Voltage	Insulation Creepage (mm)	Winding Style	Qualified BMS Silicon
HM2162NL	150 uH min	Dual	YES	4300Vdc / 60sec	1600VDC	Functional	1CT : 1CT	NXP, ADI, Infineon, Texas
HM2166NL	150 uH min	Single	NO	4300Vdc / 60sec	1000VDC	Basic (>10)	1 : 1	NXP, ADI, Infineon, Texas
HM2167NL	150 uH min	Single	NO	3700Vrms / 60sec	1000VDC	Basic (>10)	1CT : 1CT	NXP, ADI, Infineon, Texas
HM2168NL	150 uH min	Dual	NO	4300Vdc / 60sec	1500VDC	Functional	1CT : 1CT	NXP, ADI, Infineon, Texas
HM2169NL	150 uH min	Single	YES	4300Vdc / 60sec	1000VDC	Basic (>10)	1CT : 1CT	NXP, ADI, Infineon, Texas

Additional Electrical performance

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

Part Number	Leakage Inductance (Max)	Winding DCR (Ω)		Insertion Loss	Return Loss	CMR (dB min)		Insulation Resistance (MOhms)
		PHY Side	Line Side		|Z|out = 100 Ω	1 - 10MHz	10- 1000MHz	
HM2162NL	0.50 uH @ 100kHz	0.45 max	0.85 max	-0.25dB max @ 4MHz	-20 dB min @ 4MHz	35 min	20 min	400 MIN
HM2166NL	0.50 uH @ 100kHz	0.45 max	0.45 max	-0.50dB max @ 4MHz	-20 dB min @ 4MHz	-	-	-
HM2167NL	0.50 uH @ 100kHz	0.45 max	0.45 max	-0.50dB max @ 4MHz	-20 dB min @ 4MHz	-	-	-
HM2168NL	0.50 uH @ 100kHz	0.45 max	0.45 max	-0.25dB max @ 4MHz	-20 dB min @ 4MHz	-	-	-
HM2169NL	0.50 uH @ 100kHz	0.45 max	0.85 max	-0.50dB max @ 4MHz	-20 dB min @ 4MHz	35 min	20 min	400 MIN

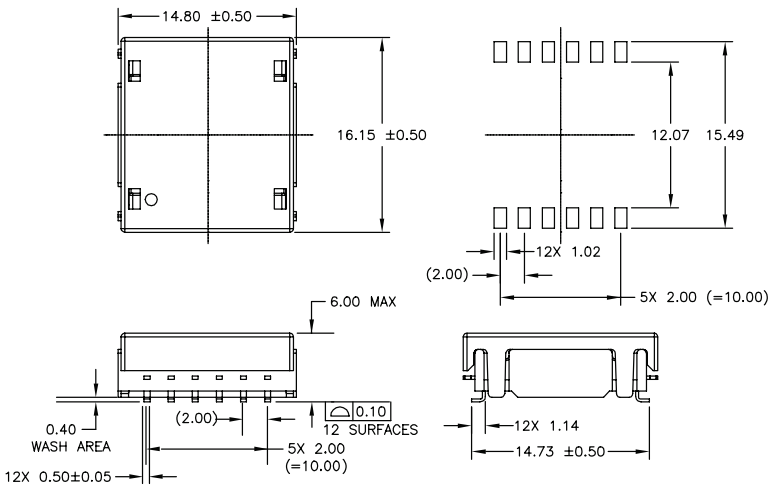
Notes:

1. Storage Temperature: -50°C to +125°C
2. Compliance to J-STD:
   A. J-STD-002: Solderability at 245°C Reflow Profile
   B. J-STD-020: Moisture Sensitive Level 1
   C. J-STD-075: R7, 245°C Maximum Through Reflow Solder
3. The NL suffix part comes in Tubes with 35pcs per tube. To order tape and reel packaging add a 'T' suffix to the part number (ie: HM2168NL becomes HM2168NLT). Quantity per reel is 350pcs and 500pcs /reel.
4. Header: DAP (Diallyl Phthalate) with flammability Rating UL 94V-0 or better
5. Lead Frame: Cooper Alloy
   Under plated: Half Hard Ductile Nickel 50-100" (1.3-2.5um)
   Over plated : 100% Tin electro-deposited per ASTM B545 300 - 50u"(8-13um)
   Finish : Matte finish 100% Tin solder
6. AEC-Q200 Qualified, PPAP on request

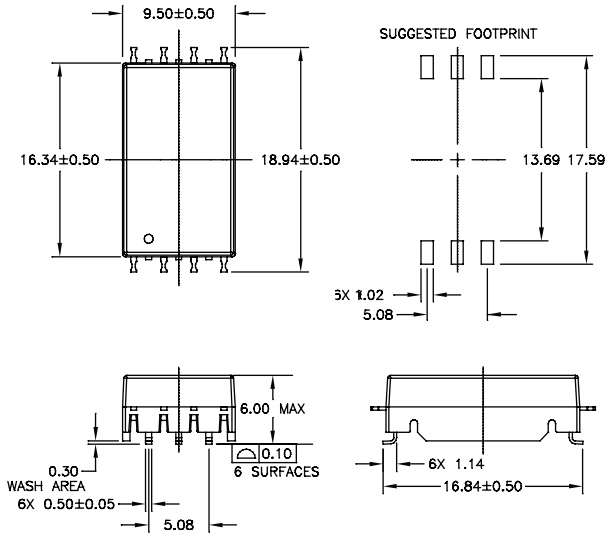
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MECHANICALS

HM2162/68NL



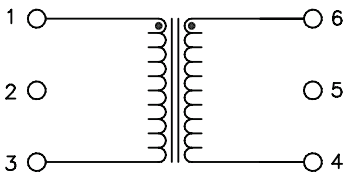
HM2166/67/69NL



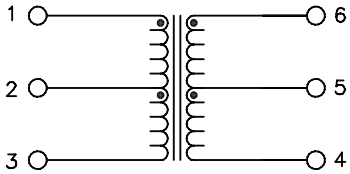
Dimensions:
Unless otherwise specified,
all tolerances are ± 0,25

SCHEMATICS

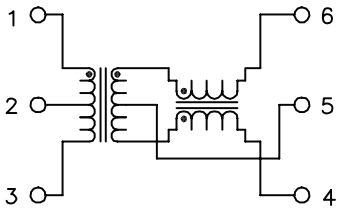
HM2166NL



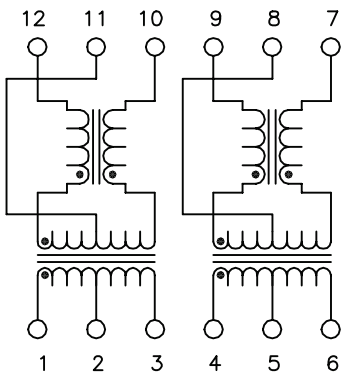
HM2167NL



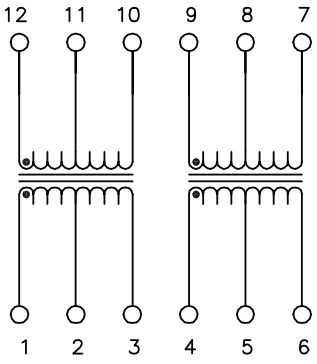
HM2169NL



HM2162NL



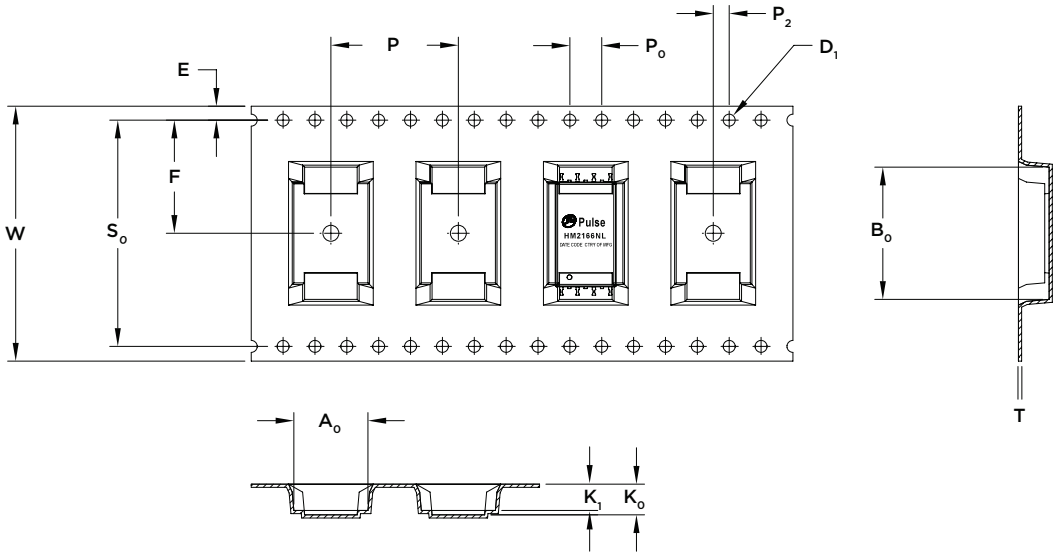
HM2168NL



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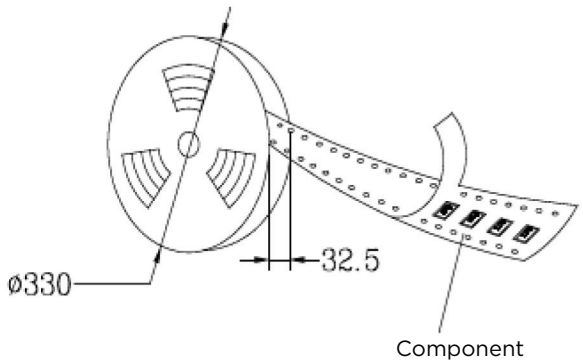
TAPE & REEL

HM2162/66/67/68/69NL



HM2166/67/69NL							
W	32.0±0.30	P	16.00	A_0	9.90	B_0	16.60
S_0	28.40	P_0	4.00	A_1	--------	B_1	--------
E	1.75	P_2	2.00	A_2	--------	B_2	--------
F	14.20	D_0	--------	K_0	6.60	K_1	5.80
T	0.50±0.05	D_1	1.50 +0.10 -0.00	QUANTITY PER REEL			500 pcs

HM2162NL, HM2168NL							
W	32.0±0.30	P	24.00	A_0	16.10	B_0	15.10
S_0	28.40	P_0	4.00	A_1	--------	B_1	--------
E	1.75	P_2	2.00	A_2	--------	B_2	--------
F	14.20	D_0	--------	K_0	7.00	K_1	5.60
T	0.50±0.05	D_1	1.50 +0.10 -0.00	QUANTITY PER REEL			350 pcs



All Dimensions meet EIA-481-D requirements.

1. **Material:** Black Conductive Polystyrene
2. **Components per Reel:** see table
3. **Quantity per carton:**
   5reels x 350 = 1750 pcs
   6reels x 500 = 2500 pcs

For More Information:
Americas - prodinfo_network_americas@yageo.com | **Europe -** prodinfo_network_emea@yageo.com | **Asia -** prodinfo_network_apac@yageo.com

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