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SMT Gate Drive Transformers

>1500VDC Basic and Functional Insulation

Pulse
a YAGEO company

- >1500V_{DC} isolation (380Vrms continuous)
- Basic insulation (1.4mm creepage/ clearance) and functional available
- Operating frequency: 50kHz and up



Electrical Specifications @ 25°C – Operating Temperature -40°C to +130°C[5]								
Part Number[3,4]	Turns Ratio	Pri-Sec Isolation	MAX[1] V*µsec	Primary Inductance (µH MIN)	Leakage[2] Inductance (µH MAX)	DCR Primary (Ω MAX)	DCR Secondary (Ω MAX)	Package Size (L x W x H) (mm MAX)
Functional Insulation								
PE-68386NL	1:1	1500 Vdc	9.7	785	0.46	0.60	0.60	8.6 x 6.7 x 2.5
P0926NL	1:1:1	1500 Vdc	23.8	300	0.50	2.00	2.00	8.0 x 6.6 x 5.3
P0544NL	1:1:1	1500 Vdc	45.1	3300	0.80	1.25	1.25	9.0 x 8.6 x 7.6
PA0264NL	1:1:1	1000 Vrms	12.7	1140	0.65	0.75	0.75	8.6 x 6.7 x 3.6
PA1323NL	1:1	1500 Vrms	21.7	600	2.0	1.25	1.25	9.5 x 7.1 x 5.3
Basic Insulation (1.4mm creepage and clearance between Primary and Secondary)								
PA0173NL	1:1:1	1500 Vrms	17.2	980	0.75	0.62	0.88	11.8 x 8.8 x 4.0
PA0185NL	1:1	1500 Vrms	17.2	980	0.75	0.88	0.62	11.8 x 8.8 x 4.0
PA0184NL	1:1	1500 Vrms	27.2	1200	0.50	0.91	0.91	9.0 x 8.6 x 7.6
PA0297NL	2:1:1	1500 Vrms	27.2	1200	0.60	0.91	0.46	9.0 x 8.6 x 7.6
PA2777NL	1:1	1500 Vrms	9.3	335.2	0.36	0.70	0.70	7.1 x 6.1 x 5.5
PA0510NL	2.5:1:1	1500 Vrms	27.2	1200	0.68	0.91	0.380	9.0 x 8.6 x 7.6
PA3493NL	1.25:1	1650 Vrms	23	656	1.3	1.03	0.85	10.9 x 9.7 x 2.7

Notes:

1. The Maximum volt-µsec rating limits the peak flux density to 2200 Gauss when used in a unipolar drive application. For bi-polar drive applications, a maximum volt-sec of two times this rating is acceptable (ie: 2* (volt*µsec rating) = (voltage applied to the primary) * dutycycle / Frequency = V * alpha / Freq_Hz = V * µsec
2. Leakage inductance is measured at primary terminals with all secondaries shorted.
3. Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. P0544NL becomes P0544NLT). Pulse complies to industry standard tape and reel specification EIA481.
4. The "NL" suffix indicates an RoHS-compliant part number.
5. The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.
6. Continuous isolation voltage confirmed by 125°C/1000hrs accelerated aging with the bias voltage applied between primary and secondary windings.

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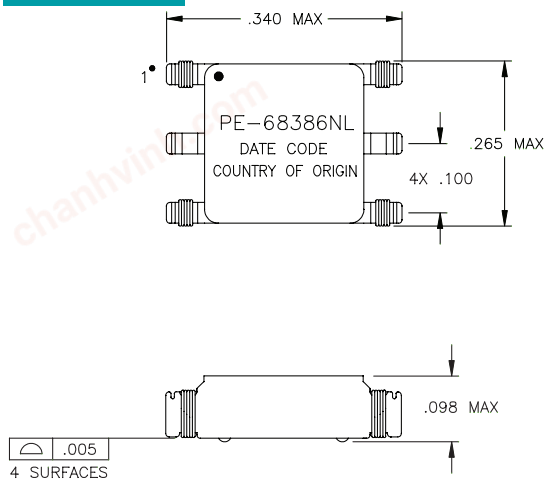
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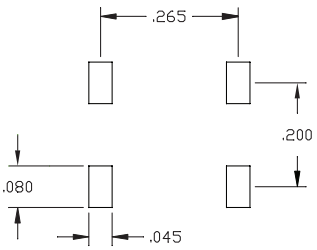
>1500VDC Basic and Functional Insulation

Pulse a YAGEO company

PE-68386NL

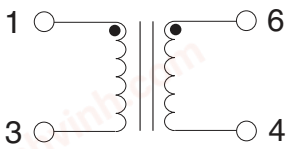
Mechanicals





SUGGESTED PAD LAYOUT

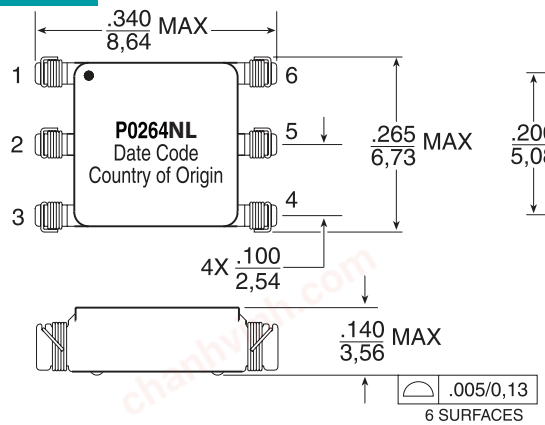
Schematics

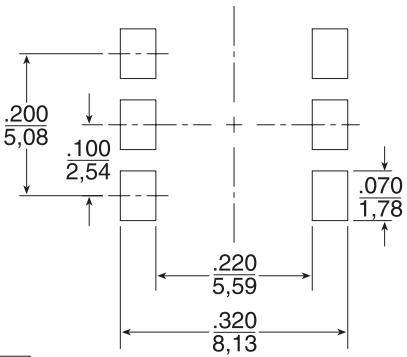


Weight 0.28grams
Tape & Reel 1500/reel
Tube 60/tube
Dimensions: Inches / mm
Unless otherwise specified, all tolerances are: ±.010 / 0,25

PA0264NL

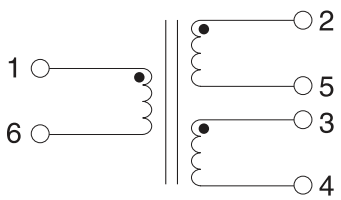
Mechanicals





SUGGESTED PAD LAYOUT

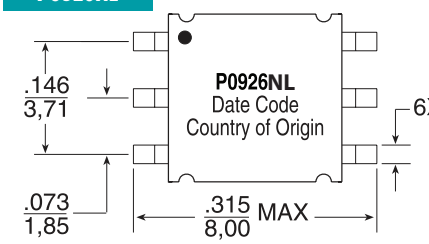
Schematics

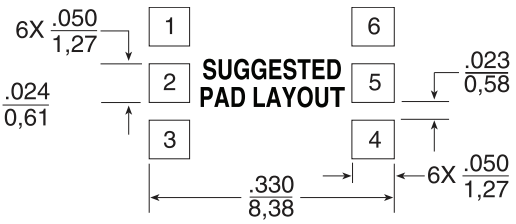


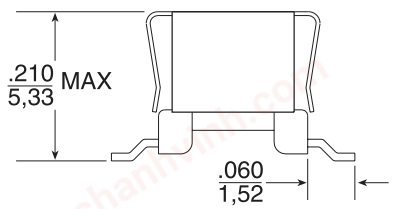
Weight 0.28grams
Tape & Reel 1500/reel
Tube 60/tube
Dimensions: Inches / mm
Unless otherwise specified, all tolerances are: ±.010 / 0,25

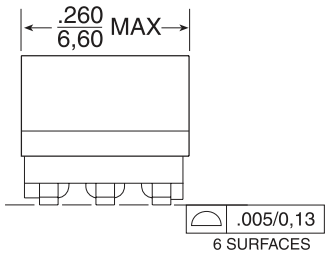
P0926NL

Mechanicals

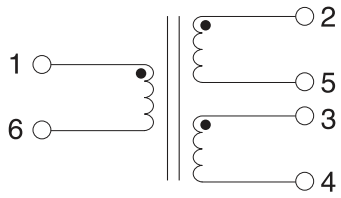








Schematics



Weight 0.48grams
Tape & Reel 1000/reel
Tray 120/tray
Dimensions: Inches / mm
Unless otherwise specified, all tolerances are: ±.010 / 0,25

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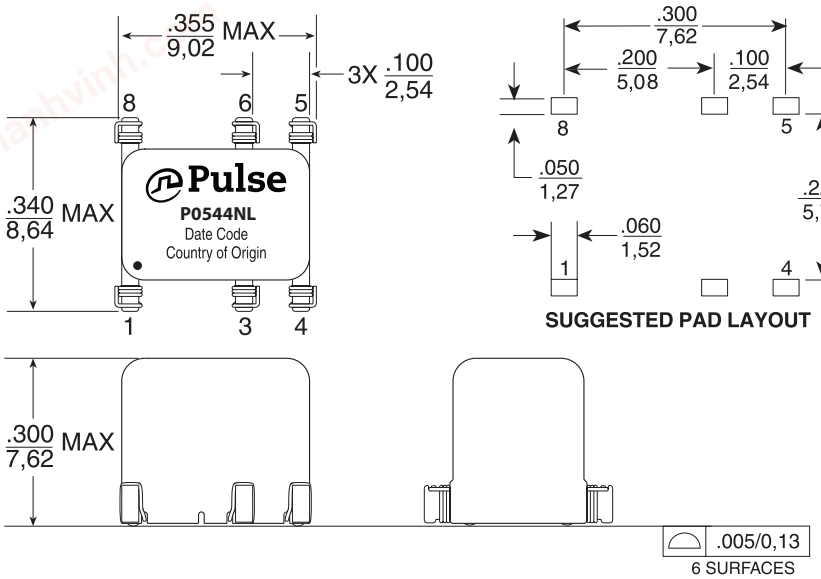
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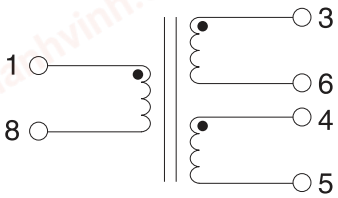
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P0544NL

Mechanicals *(continued)*



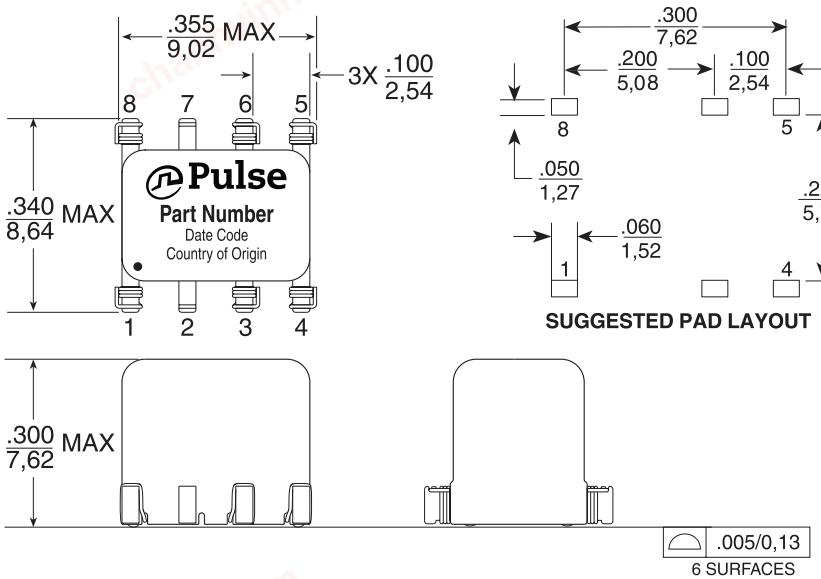
Schematics



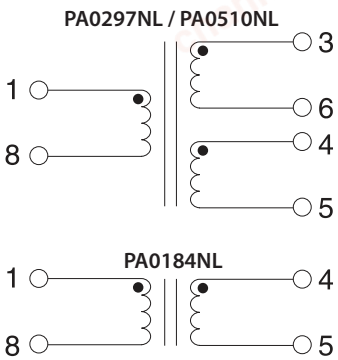
Weight 0.60grams
Tape & Reel 400/reel
Tube 50/tube
Dimensions: Inches / mm
Unless otherwise specified,
all tolerances are: ±.010 / 0,25

PA0297NL, PA0510NL, PA0184NL

Mechanicals



Schematics



Weight 0.60grams
Tape & Reel 400/reel
Tube 50/tube
Dimensions: Inches / mm
Unless otherwise specified,
all tolerances are: ±.010 / 0,25

* for PA0184 the pads for pins 3 and 6 in the suggested pad layout should not be used in the layout

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SMT Gate Drive Transformers

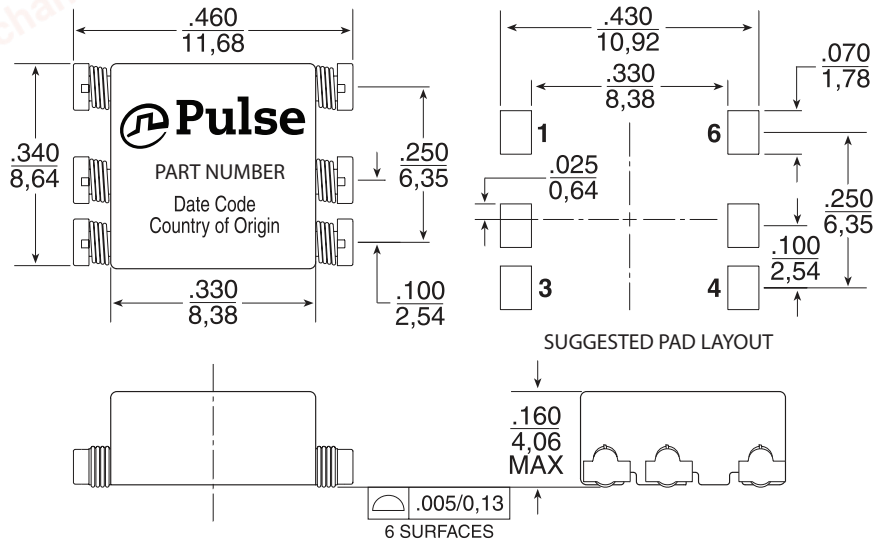
>1500VDC Basic and Functional Insulation

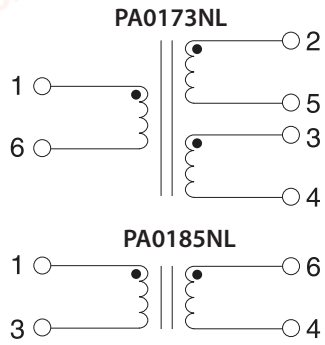
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Mechanicals *(continued)*

Schematics

PA0173NL, PA0185NL



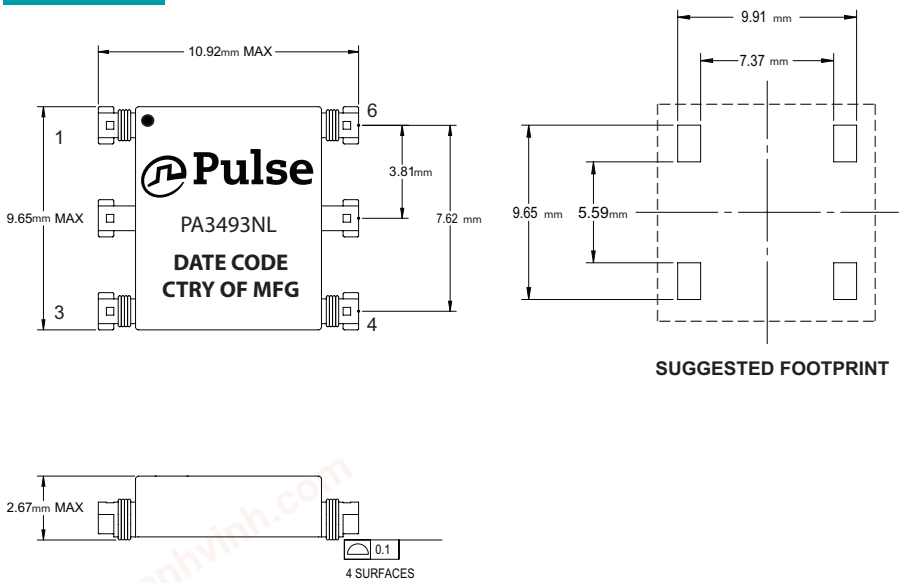


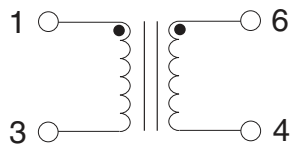
Weight 0.48grams
Tape & Reel 900/reel
Tube 60/tube
Dimensions: Inches / mm
Unless otherwise specified,
all tolerances are: ± .010 / 0,25

Mechanicals

Schematics

PA3493NL





Weight 0.31grams
Tape & Reel 1250/reel
Tube 50/tube
Dimensions: mm
Unless otherwise specified,
all tolerances are: ±0.25

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SMT Gate Drive Transformers

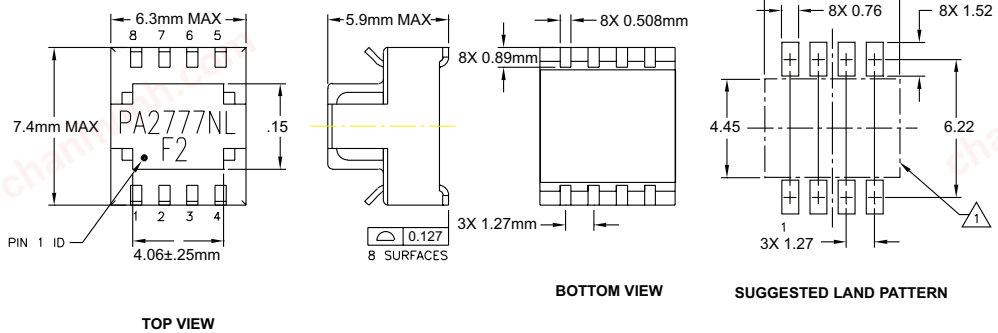
>1500VDC Basic and Functional Insulation

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Mechanicals *(continued)*

Schematics

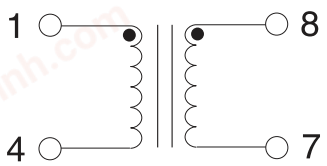
PA2777NL



TOP VIEW

BOTTOM VIEW

SUGGESTED LAND PATTERN

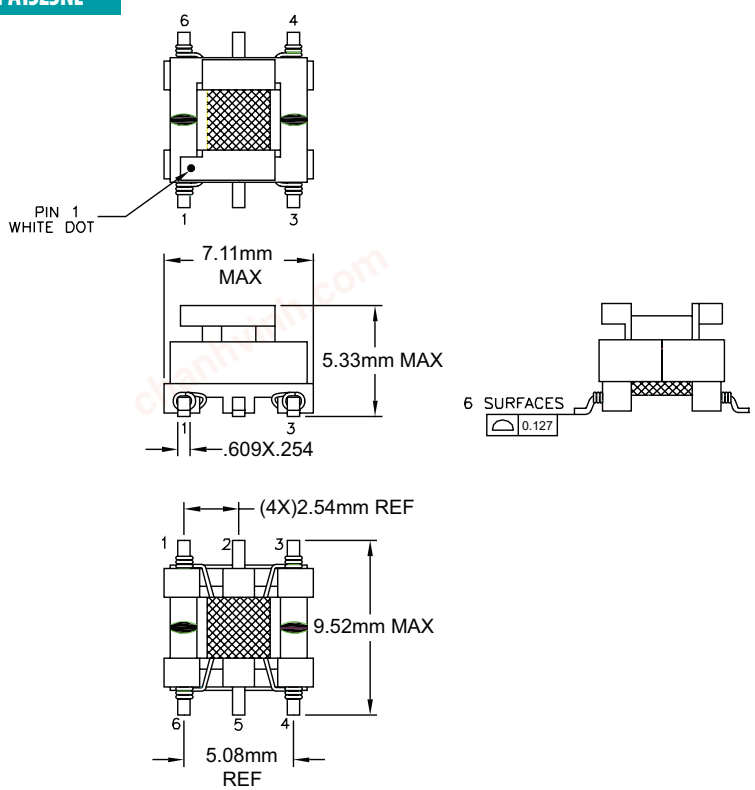


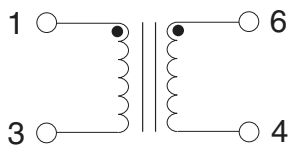
Weight 0.32grams
Tape & Reel 850/reel
Tube 120/tube
Dimensions: mm
Unless otherwise specified,
all tolerances are: ±0.25

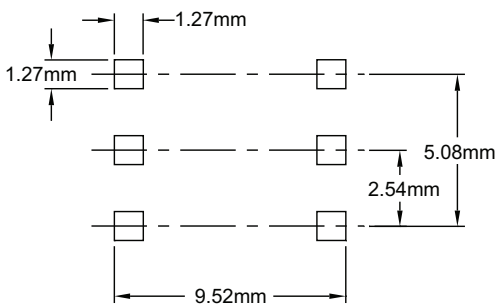
Mechanicals

Schematics

PA1323NL







SUGGESTED PCB LAYOUT

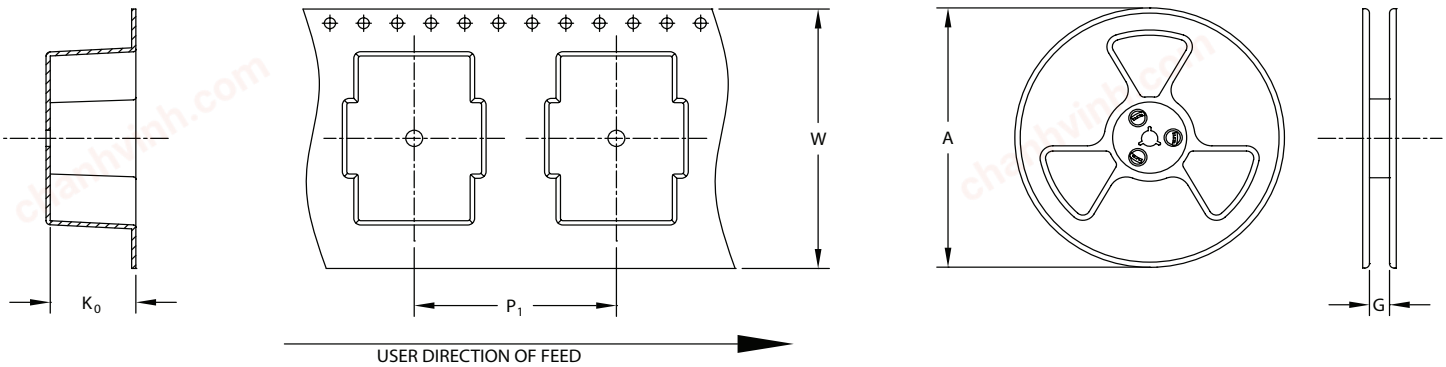
Weight 0.4grams
Tape & Reel 700/reel
Tray 225/tray
Dimensions: mm
Unless otherwise specified,
all tolerances are: ±0.25

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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
PE-68386NLT	Ø330	16.4	12	16	3.05	1500
P0926NLT	Ø330	16.4	12	16	5.33	1000
P0544NLT	Ø330	24.4	16	24	8.13	400
PA0264NLT	Ø330	24.4	16	24	3.81	800
PA1323NLT	Ø330	16.4	12	16	5.55	870
PA0173NLT	Ø330	24.4	16	24	4.32	900
PA0185NLT	Ø330	24.4	16	24	4.32	900
PA0184NLT	Ø330	24.4	16	24	8.13	400
PA0297NLT	Ø330	24.4	16	24	8.13	400
PA2777NLT	Ø330	16.4	12	16	6.10	850
PA0510NLT	Ø330	24.4	16	24	8.13	400
PA3493NLT	Ø330	24.4	16	24	2.80	1250

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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