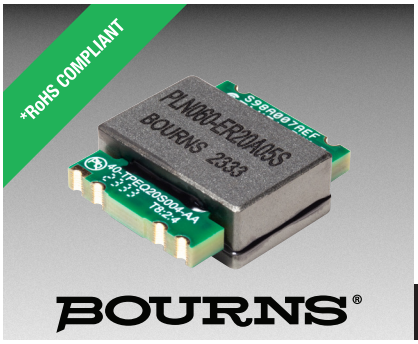


Features

- DC to DC transformer: 60 to 71 watts
- Flyback converter topology
- Low leakage inductance
- Low profile component
- Surface mount
- Operating temperature: -40 °C to +125 °C
- RoHS compliant*

Applications

- High power PoE applications
- Industrial power systems
- Switched-Mode Power Supplies (SMPS)
- LED lighting
- Battery Management Systems

PLN0xx-ER20 Series – Planar Transformer

General Specifications

Operating Temperature..... -40 °C to +125 °C
(Temperature Rise Included)
Storage Temperature with Packaging.....+5 °C to +40 °C
Transformer Input Voltage .....36-72 VDC
Switching Frequency .....200 kHz
Moisture Sensitivity Level 1

Additional Information

Click these links for more information:

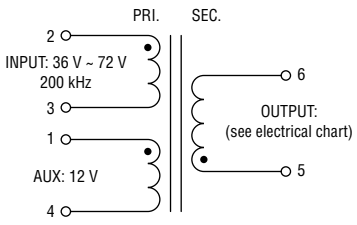
PRODUCT | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

Electrical Specifications @ 25 °C

Bourns Part Number	Primary Inductance[1] (µH)	Leakage Inductance[2] (µH) max.	DCR max. (mΩ)			Turns ratio			Hi - Pot[3]	Main Output
			pri.	sec.	aux.	pri.	sec.	aux.		
PLN060-ER20A03S	21 ± 10 %	0.5	90	11.0	220	1	0.166	0.666	1500 V_{rms}	3.3 V / 18 A
PLN060-ER20A05S			40	8.0			0.25	0.5		5.0 V / 12 A
PLN060-ER20A12S			40	14.0			0.5	0.5		12 V / 5.0 A
PLN060-ER20A24S			40	33.0			1	0.5		24 V / 2.4 A
PLN071-ER20A03S	18 ± 10 %		90	9.0			0.166	0.666		3.3 V / 21 A
PLN071-ER20A05S			40	8.0			0.25	0.5		5.0 V / 14 A
PLN071-ER20A12S			40	14.0			0.5	0.5		12 V / 5.9 A
PLN071-ER20A24S			40	33.0			1	0.5		24 V / 2.9 A

Notes:
1. Measuring conditions 100 kHz, 1 V @ 25 °C.
2. Leakage inductance is for the primary and is measured with the secondary winding shorted.
3. DC current at 25 °C that causes an inductance drop of <15 % from its value without current.
4. HI-POT: Pri–Sec: 1500 VAC / 2 mA / 5 S, Pri, Sec-Core: 500 VAC / 2 mA / 5 S.
5. Output is for the secondary. Output of the aux winding is 12 V, 30 mA.

Electrical Schematic



How To Order

PLN 060 - ER20 A 03 S

Model
PLN = Planar Transformer

Power Rating
060 = 60 W
071 = 71 W

Core and Size
ER20 = ER20

Sub-series
A = A, B, C, D... Series

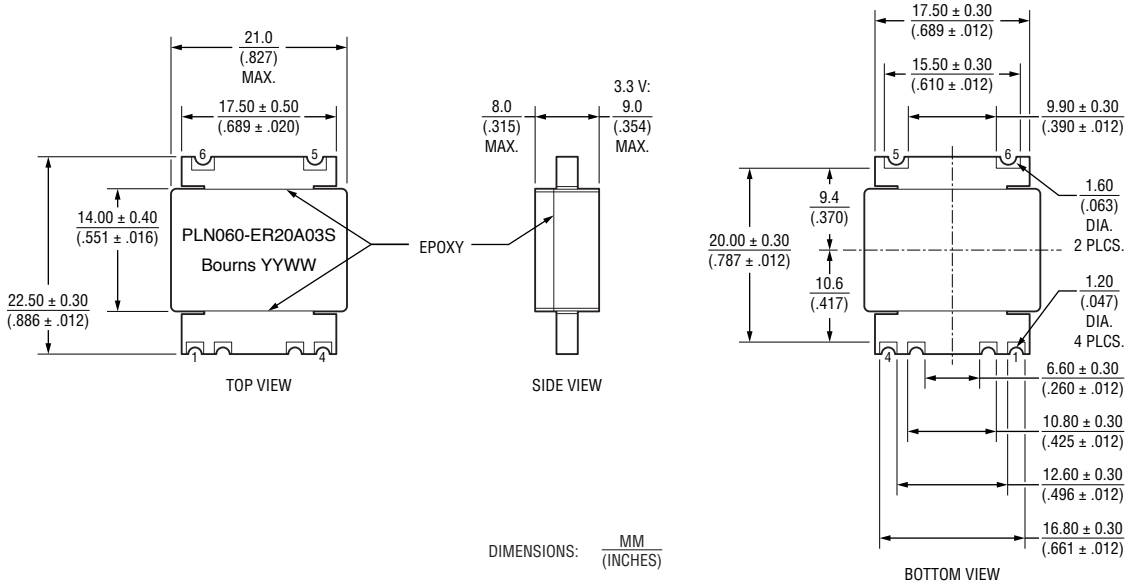
Output Voltage
03 = 3.3 V

PCB type
S = SMD

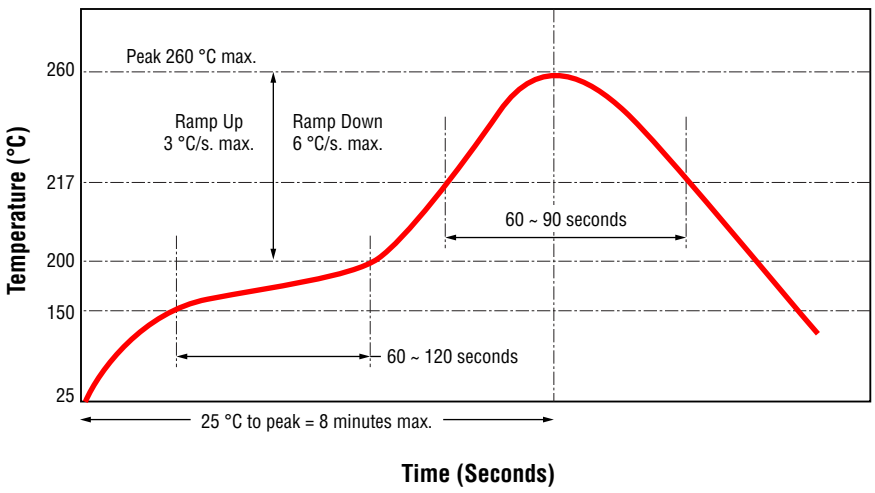
WARNING Cancer and Reproductive Harm -
www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
Specifications are subject to change without notice.
Users should verify actual device performance in their specific applications.
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Product Dimensions

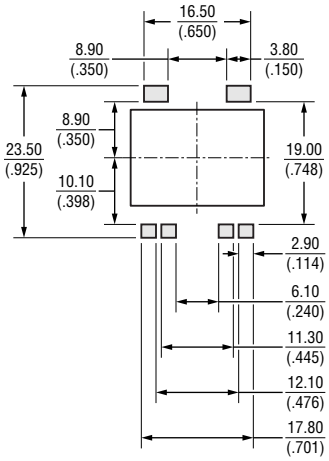


Soldering Profile



Preheat condition..... 150 ~ 200 °C / 60 ~ 120 seconds
Allowed time above 217 °C ..... 60 ~ 90 seconds
Maximum temperature.....260 °C
Maximum time at maximum temperature ..... 10 seconds
Solder paste Sn/3.0Ag/0.5Cu
Allowed reflows.....2X maximum

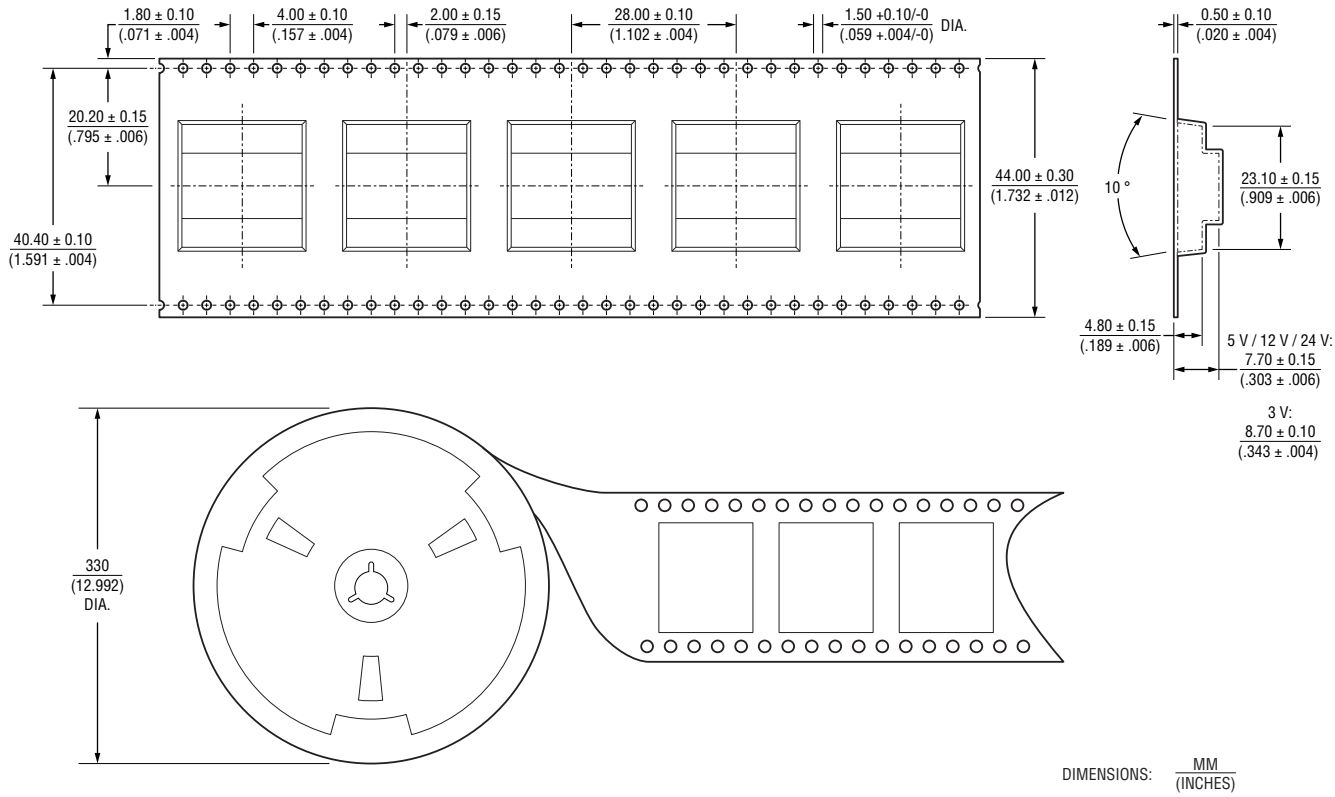
Recommended Layout



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Packaging Specifications

200 pcs. per reel, 4 reels per carton



BOURNS®

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EMEA: Tel: +36 88 885 877 • Email: eurocus@bourns.com
The Americas: Tel: +1-951 781-5500 • Email: americus@bourns.com
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