

## Features

- Power from 3 to 30 W
- Output voltage from 5 to 53 V
- Hi-Pot up to 4000 VAC
- Surface and through-hole mount
- RoHS compliant\*

## Applications

- High efficiency PoE interface and DC/DC controllers
- PoE PD controllers
- Synchronous flyback converters

## PDC-EP, PDC-EF & PDC-RM Series - DC to DC Transformers

### General Specifications

#### Operating Temperature

PDC023-EP13A05S, PDC030-EP13A12S, PDC030-RM08A53T ..... -40 °C to +125 °C

PDC003-EF13A04T ..... -40 °C to +100 °C

Storage Temperature ..... -40 °C to 85 °C

Moisture Sensitivity Level ..... 1

### Additional Information

Click these links for more information:



### Electrical Specifications @ 25 °C

Bourns Part Number	Primary Inductance		Leakage Inductance		DC Resistance @ 0.3 V		Turns Ratio @ 100 kHz, 0.1 V <sub>rms</sub>		Hi-Pot	
PDC023-EP13A05S <sup>1</sup>	(5-3) @ 10 kHz, 0.1 V <sub>rms</sub>	37 μH ±10 %	(5-3) w/ (1,2,6,7,9,10 shorted) @ 10 kHz, 0.1 V <sub>rms</sub>	0.6 μH max.	(6,7-9,10)	5 mΩ max.	(5-3:6-10)	4.5 ±1 %	(1-10) w/ tie (2-3,6,7) @ 5 mA, 1 sec.	3000 VAC ref.
					(5-3)	68 ±20 % mΩ	(5-3:2-1)	1.81 ±1 %		
					(2-1)	123 ±10 % mΩ	(5-4:4-3)	1 ±1 %		
PDC030-EP13A12S	(1-2) @ 100 kHz, 0.1 V <sub>rms</sub>	17.3 μH ±10 %	(1-2) w/ (4,5,6,7,9,10 shorted) @ 100 kHz, 0.1 V <sub>rms</sub>	0.4 μH max.	(6,7-9,10)	12.6 mΩ max.	(3,4-5,6,6, 7-9,10)	2 ±2 %	(1,4-6,7) @ 5 mA, 6 sec.	1500 VAC ref.
					(1-2)	42 mΩ max.	(1-2:5-4)	1.71 ±2 %		
					(5-4)	99 mΩ max.				
PDC003-EF13A04T	(2-1) @ 100 kHz, 0.1 V <sub>rms</sub>	710 μH ±10 %	(2-1) w/ (4-5, 7-8 shorted) @ 100 kHz, 0.1 V <sub>rms</sub>	30 μH max.	(2-1)	2.8 mΩ max.	(2-1:4-5)	4.09 ±2 %	(1,4-8) @ 2 mA, 2 sec.	4000 VAC ref.
					(4-5)	370 mΩ max.	(2-1:8-7)	9.0 ±2 %		
					(8-7)	60 mΩ max.				
PDC030-RM08A53T	(3-1) @ 10 kHz, 0.1 V <sub>rms</sub>	382 μH ±10 %	(3-1) w/ (10,11 short; Fly1, Fly2, Fly3, Fly4 short) @ 100 kHz, 0.1 V <sub>rms</sub>	15 μH max.	(3-1)	380 mΩ max.	(3-1:12-10)	6.1 ±2 %	(3,12-Fly2, Fly4) @ 2 mA, 2 sec.	3000 VAC ref.
					(12-10)	65 mΩ max.	(3-1:Fly2- Fly1)	1.54 ±2 %		
					(Fly2-Fly1)	300 mΩ max.	(3-1:Fly4- Fly3)	7.2 ±2 %		
					(Fly4-Fly3)	55 mΩ max.				

<sup>1</sup> Saturation current of PDC023-EP13A05S with 3 A condition is (5-3): 20 % rolloff ref.



**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

Specifications are subject to change without notice.

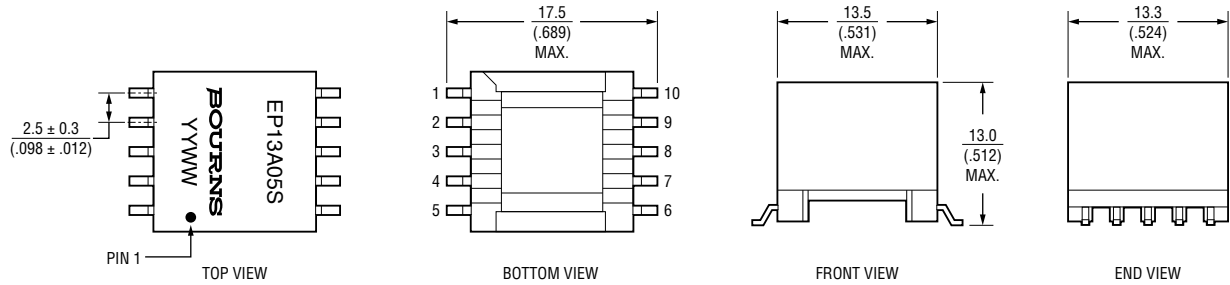
Users should verify actual device performance in their specific applications.

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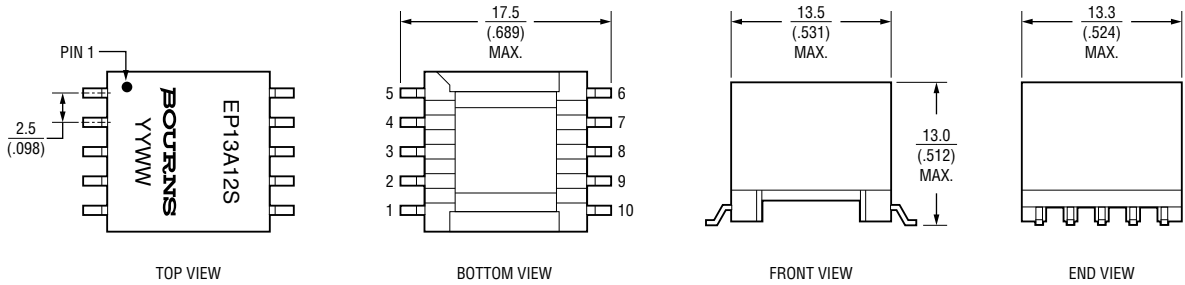
# PDC-EP, PDC-EF & PDC-RM Series - DC to DC Transformers **BOURNS®**

## Product Dimensions

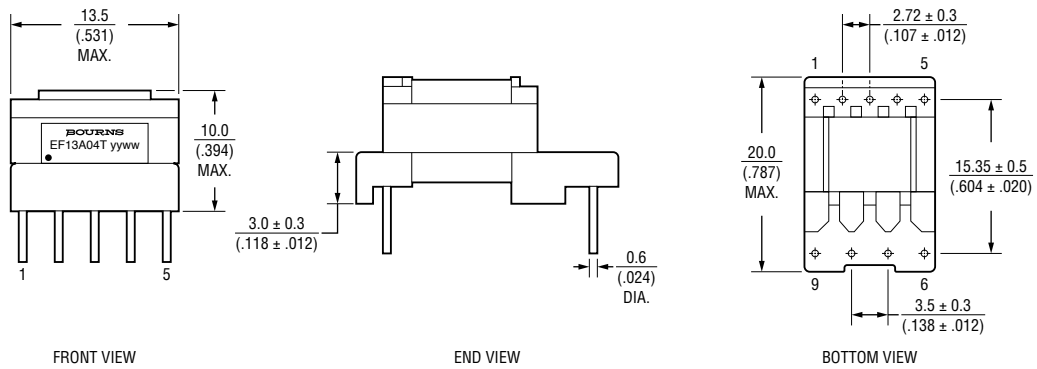
### PDC023-EP13A05S



### PDC030-EP13A12S



### PDC003-EF13A04T



DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

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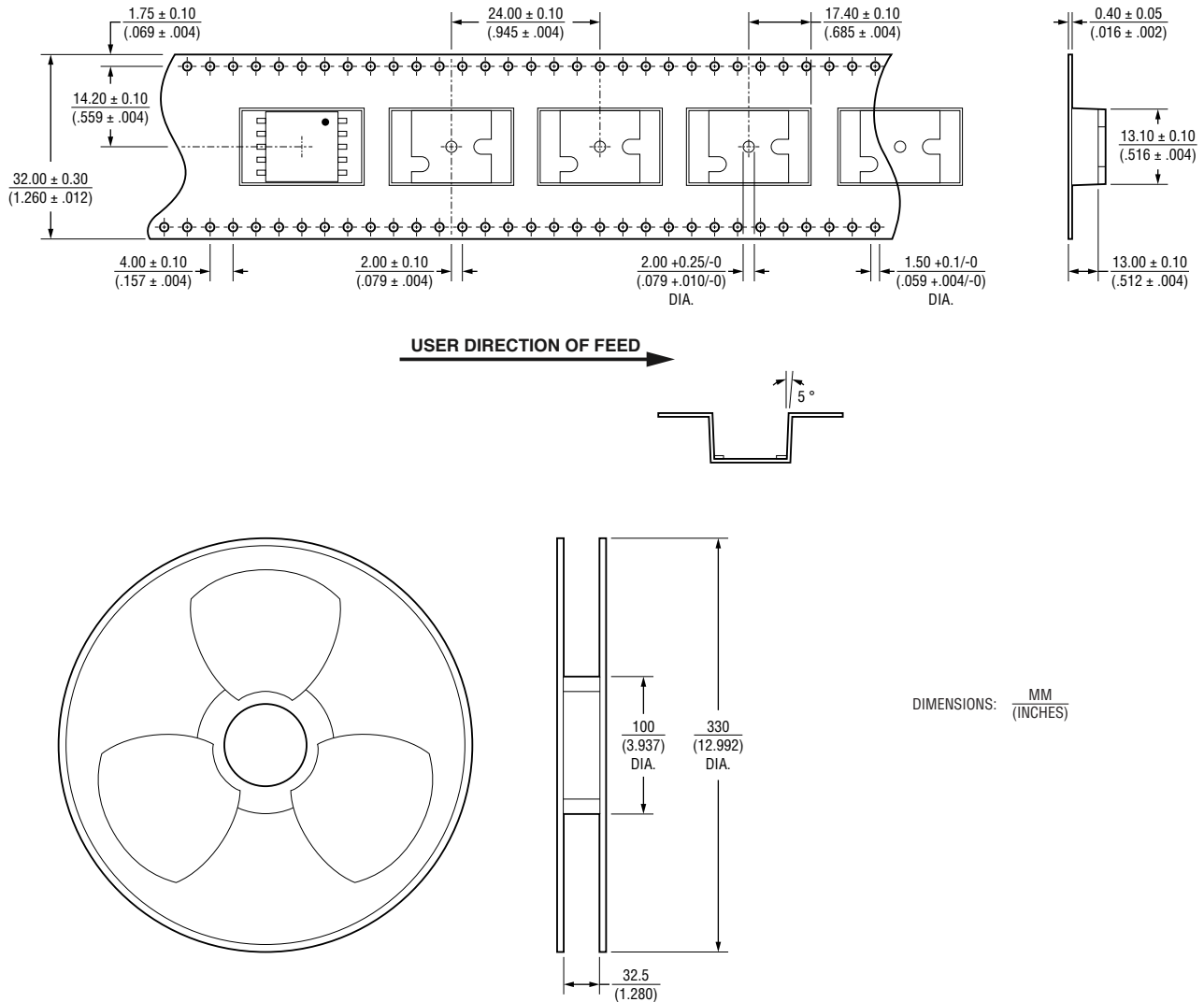




# PDC-EP, PDC-EF & PDC-RM Series - DC to DC Transformers **BOURNS®**

## Packaging Specifications

PDC023-EP13A05S, PDC030-EP13A12S: 200 pcs./reel, 3 reels/carton, 600 pcs.



PDC003-EF13A04T: 47 pcs./tray, 4 trays/inner box, 6 boxes/carton, 1128 pcs.

PDC030-RM08A53T: 24 pcs./tray, 2 trays/inner box, 6 inner boxes/carton, 288 pcs.

# BOURNS®

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