

# PRELIMINARY



## Features

- Compact size
- Broadband damping characteristics
- Excellent attenuation for symmetric and asymmetric noise
- Wide temperature range
- RoHS compliant\* and halogen free\*\*

## Applications

- Designed for T-type inverter and PFC reference design using [TI Model TIDA-01606](#)
- Frequency converters
- Wall boxes
- Power supplies
- Drives and control circuits
- Photovoltaic inverters

## Model 047684 Common Mode Choke

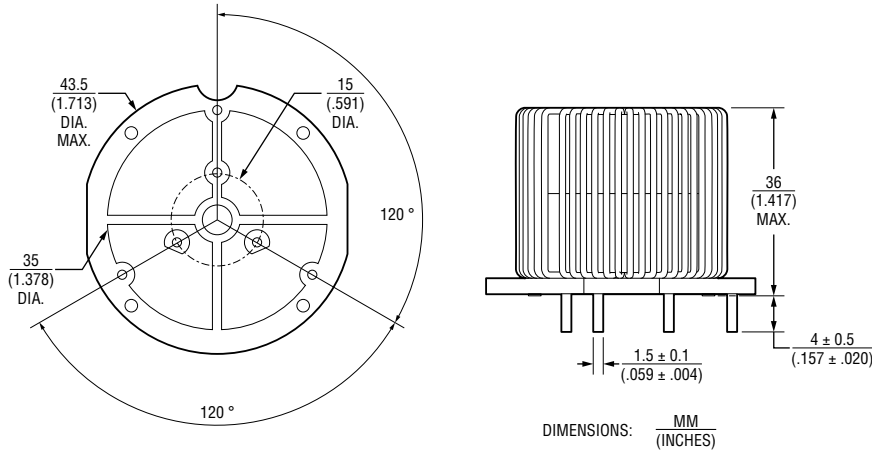
### Electrical Specifications

Bourns Part Number	Test Condition	Inductance (mH) ±30 %	Current Max. (A)	Leakage Inductance Typ. (µH)	DCR Max. (mΩ)	SRF Typ. (kHz)	Rated Voltage (V)	HV Pot. kVeff/50 Hz
047684	10 kHz, 50 mV	3x 3.0	26	13	11	370	250	1.5

### General Specifications @ 25 °C

Core/Material .....	2x R 31.5/19/12.5 / $\mu i=6000$
Transformation Ratio .....	1:1:1
Pin Diameter .....	1.5 mm
Base .....	Rynite FR530 or PA66 A3X2G7, PA6
Spacer .....	Nomex 992
Operating Temperature .....	-25 °C to +125 °C
Storage Temperature .....	-25 °C to +85 °C

### Product Dimensions

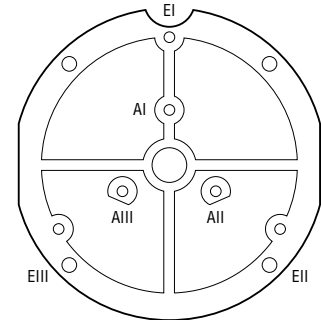


### Additional Information

Click these links for more information:

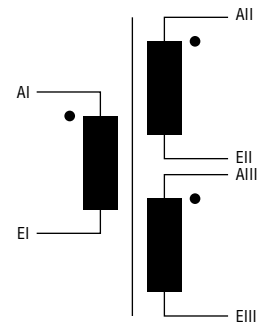


### Windings



AI, AII, AIII..... Start of winding No. I, II, III  
 EI, EII, EIII .....End of winding No. I, II, III

### Schematic



### Packaging Specifications

Bulk..... 96 pcs. per box

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[www.bourns.com](http://www.bourns.com)



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

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

\*\*Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

Specifications are subject to change without notice.

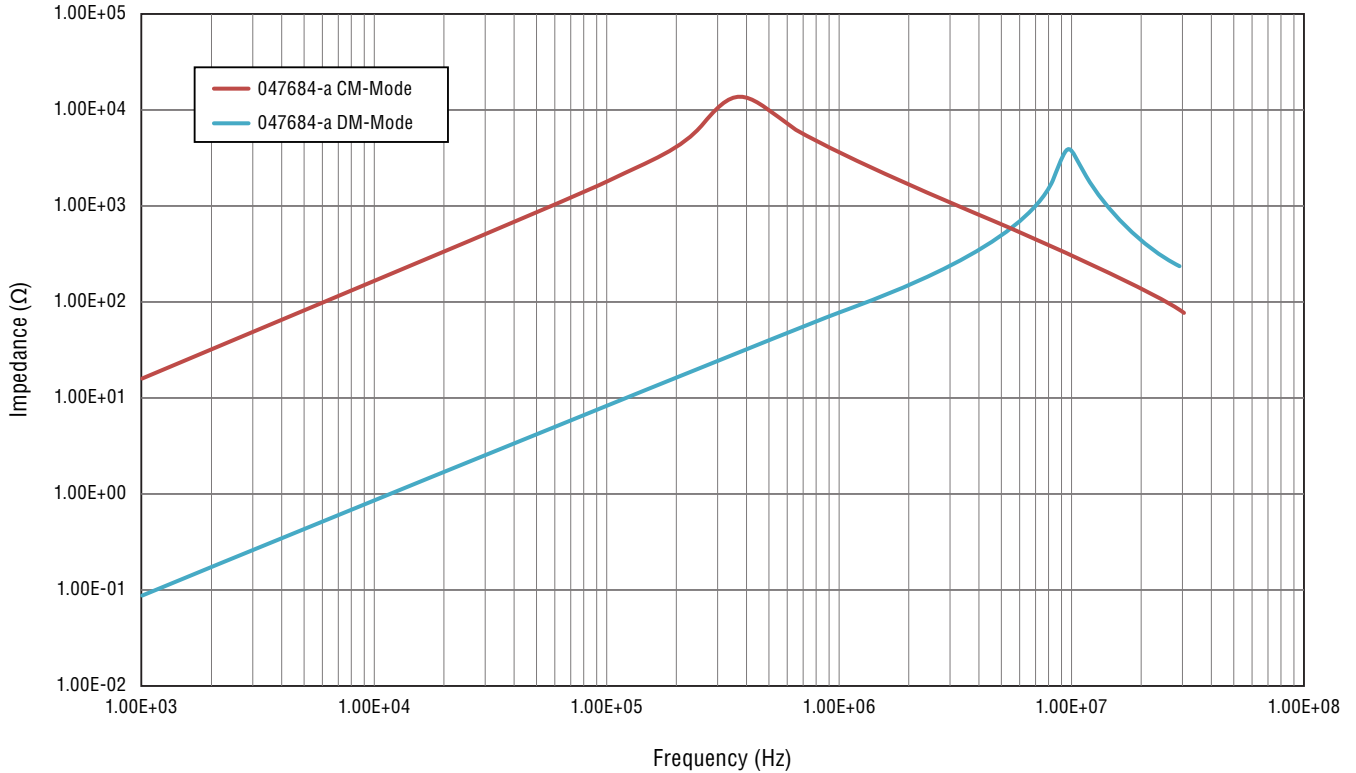
Users should verify actual device performance in their specific applications.

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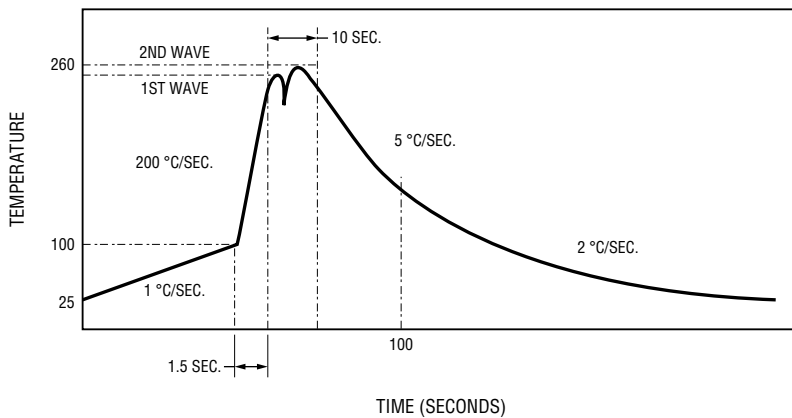
# Model 047684 Common Mode Choke

**BOURNS®**

## Impedance



## Solder Profile



Profile Feature	Pb-Free Assembly
Average ramp-up rate	~ 200 °C/second
Heating rate during preheat	typical 1-2 °/second max. 4 °/second
Final preheat temperature	within 125 °C of soldering temperature
Peak temperature $T_p$	260 °C
Time within +0 °C / -5 °C of actual peak temperature	10 seconds
Ramp-down rate	5 °C/second max.

REV. 07/24

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