

# Gate Drive Transformer

## HA42A series



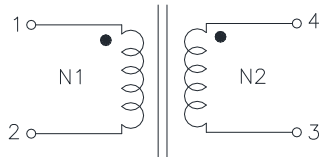
### Features:

- Operating Temperature Range -40°C to +125°C
- Ambient Temperature, Max +85°C
- Temperature Rise, 40°C
- AECQ-200 Certified
- RoHS Compliant



 All parts are Pb-free and comply with EU RoHS Directive 2011/65/EU with amendment (EU) 2015/863 (RoHS 3)

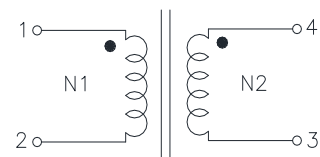
### Schematic



N1/N2 : 1:1

#### Schematic 1

HA42A-20XXXLFTR



N1/N2 : 2:1

#### Schematic 2

HA42A-20XXXALFTR

### Specifications @ 25°C

| Part Number      | Primary Inductance<br>( $\mu\text{H} \pm 40\%$ ) | Leakage Inductance<br>( $\mu\text{H Max}$ )<br>(1-2) | Primary DCR<br>( $\text{m}\Omega$ ) |     | Secondary DCR<br>( $\text{m}\Omega$ ) |     | Pri-Sec Isolation @ 2 seconds |
|------------------|--------------------------------------------------|------------------------------------------------------|-------------------------------------|-----|---------------------------------------|-----|-------------------------------|
|                  |                                                  |                                                      | Typ                                 | Max | Typ                                   | Max |                               |
| HA42A-20001LFTR  | 433                                              | 0.16                                                 | 150                                 | 180 | 150                                   | 180 | 500 Vdc                       |
| HA42A-20002LFTR  | 1000                                             | 0.22                                                 | 250                                 | 310 | 250                                   | 310 | 500 Vdc                       |
| HA42A-20003LFTR  | 1333                                             | 0.24                                                 | 270                                 | 320 | 270                                   | 320 | 500 Vdc                       |
| HA42A-20004LFTR  | 1667                                             | 0.25                                                 | 310                                 | 350 | 310                                   | 350 | 500 Vdc                       |
| HA42A-20005ALFTR | 433                                              | 0.65                                                 | 150                                 | 180 | 78                                    | 90  | 500 Vdc                       |
| HA42A-20006ALFTR | 1000                                             | 0.70                                                 | 250                                 | 310 | 130                                   | 170 | 500 Vdc                       |
| HA42A-20007ALFTR | 1333                                             | 0.80                                                 | 270                                 | 320 | 130                                   | 180 | 500 Vdc                       |
| HA42A-20008ALFTR | 1667                                             | 0.85                                                 | 310                                 | 350 | 150                                   | 180 | 500 Vdc                       |

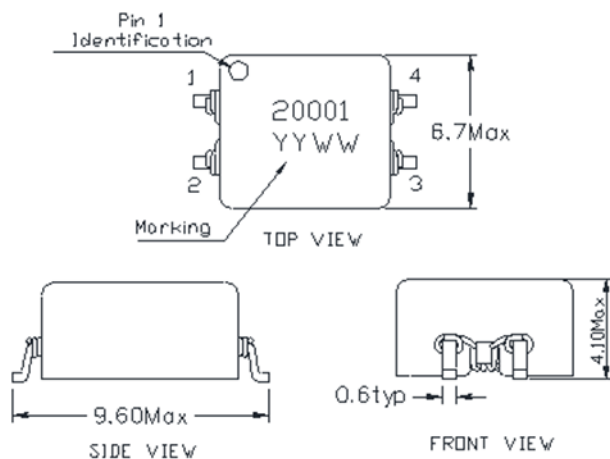
#### General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

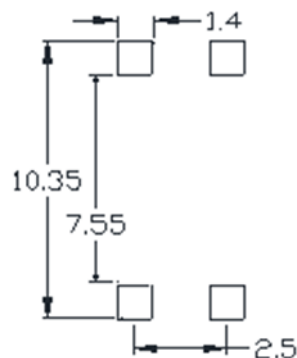
### Notes:

- 1) Inductance is measured @ 100kHz , 1.0Vrms
- 2) Inductance leakage is measured with pin 4&3 shorted
- 3) DCR measured @25°C

## Outline dimensions (mm)



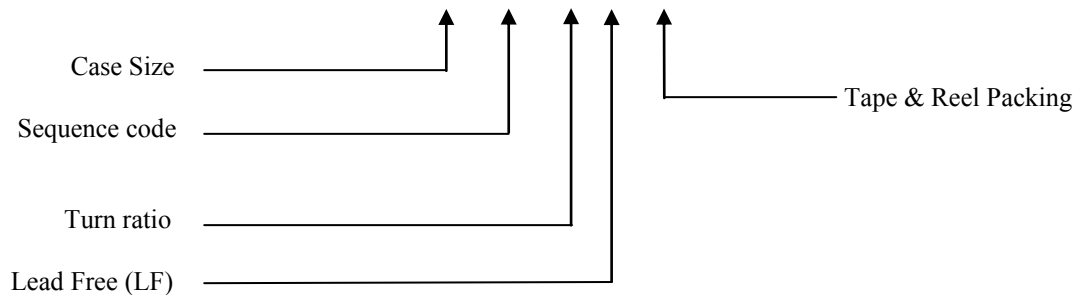
Mechanical outline



Recommended PCB layout

## Packaging

HA42A – 20 XXX A LF TR



|                     |                     |
|---------------------|---------------------|
| One reel            | 1000pcs             |
| One shipping carton | 6 reels or 6000 pcs |

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