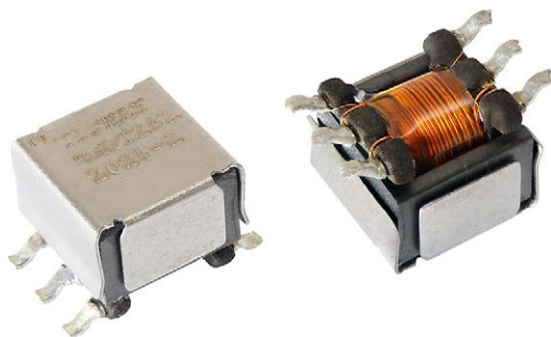


## Micro Gate Drive Transformers



### FEATURES

**RoHS\***  
Available

- Deliver MOSFET / IGBT gate power and timing signals simultaneously
- Directly drive high side MOSFETs / IGBTs on busses up to 200 V
- Excellent rise time, overshoot, and peak current characteristics
- For lead (Pb)-free parts, please add “-LF” to the end of the part number
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

### Note

\* This datasheet provides information about parts that are RoHS-compliant and / or parts that are non RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information / tables in this datasheet for details

| ABSOLUTE MAXIMUM RATINGS               |                      |                 |                   |
|----------------------------------------|----------------------|-----------------|-------------------|
| PARAMETER                              | CONDITIONS           | LIMITS          | UNITS             |
| Dielectric withstand voltage           | Drive to gate, 1 min | 1500            | V <sub>DC</sub>   |
|                                        | Gate to gate, 1 min  | 500             | V <sub>DC</sub>   |
| Winding current                        | Any winding          | 100             | mA <sub>RMS</sub> |
| Total power dissipation <sup>(1)</sup> |                      | 400             | mW                |
| Operating temperature                  | Continuous           | -55 to +130     | °C                |
| Storage temperature                    | Continuous           | -55 to +155     | °C                |
| Frequency                              |                      | 125 to 750      | kHz               |
| Size (L x W x H)                       |                      | 8.9 x 6.6 x 5.6 | mm                |
| Terminals                              | Surface-mount        |                 |                   |

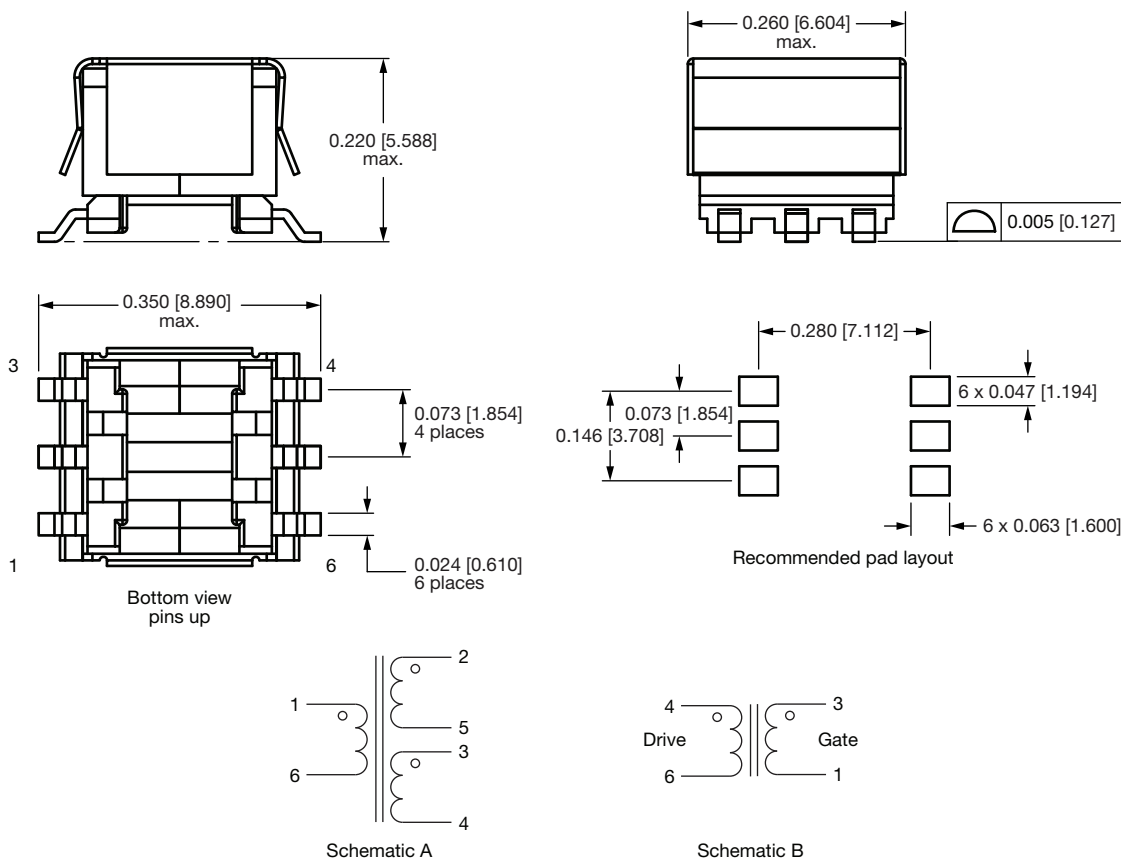
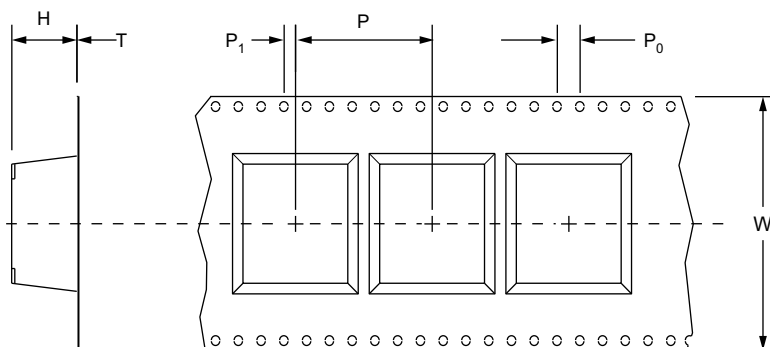
### Note

<sup>(1)</sup> Derate at 5 mW/°C above 25 °C

| STANDARD ELECTRICAL SPECIFICATIONS |                          |                                       |                                |                                                    |                                             |                              |                |                          |                        |           |
|------------------------------------|--------------------------|---------------------------------------|--------------------------------|----------------------------------------------------|---------------------------------------------|------------------------------|----------------|--------------------------|------------------------|-----------|
| PART NUMBER <sup>(1)</sup>         | USEFUL FREQ. RANGE (kHz) | TRANSFER RATIO (± 1 %) <sup>(2)</sup> | DRIVE EXCITATION MAX. (V x μs) | MAGNETIZING INDUCTANCE MIN. (μH) <sup>(3)(4)</sup> | LEAKAGE INDUCTANCE MAX. (nH) <sup>(5)</sup> | DC RESISTANCE <sup>(3)</sup> |                | INTERWINDING CAPACITANCE |                        | SCHEMATIC |
|                                    |                          |                                       |                                |                                                    |                                             | DRIVE MAX. (Ω)               | GATES MAX. (Ω) | DRIVE TO GATE MAX. (pF)  | GATE TO GATE MAX. (pF) |           |
| MTBAUGDT125050                     | 125 to 500               | 1 : 0.5 : 0.5                         | 63                             | 330                                                | 500                                         | 2.0                          | 0.7            | 60                       | 30                     | A         |
| MTBAUGDT125075                     | 125 to 500               | 1 : 0.75 : 0.75                       | 66                             | 360                                                | 500                                         | 2.0                          | 2.0            | 60                       | 30                     | A         |
| MTBAUGDT125100                     | 125 to 500               | 1 : 1 : 1                             | 63                             | 330                                                | 500                                         | 2.0                          | 2.0            | 160                      | 160                    | A         |
| MTBAUGDT250101                     | 250 to 750               | 1 : 1                                 | 25.8                           | 350                                                | 1000                                        | 1.0                          | 0.65           | 75                       | n/a                    | B         |
| MTBAUGDT250102                     | 250 to 750               | 1 : 1 : 1                             | 22.4                           | 264                                                | 300                                         | 1.5                          | 1.5            | 95                       | 95                     | A         |
| MTBAUGDT250251                     | 250 to 750               | 2.5 : 1                               | 30.6                           | 473                                                | 1500                                        | 1.5                          | 0.3            | 25                       | n/a                    | B         |
| MTBAUGDT250252                     | 250 to 750               | 2.5 : 1 : 1                           | 23.8                           | 300                                                | 900                                         | 1.8                          | 0.3            | 27                       | 27                     | A         |

### Notes

- <sup>(1)</sup> For lead (Pb)-free parts, please add “-LF” to the end of the part number
- <sup>(2)</sup> Drive: gate or drive : gate : gate
- <sup>(3)</sup> T<sub>A</sub> = 25 °C
- <sup>(4)</sup> Small signal measurement across the drive winding with both gates open
- <sup>(5)</sup> Small signal measurement across the drive winding with both gates shorted
- <sup>(6)</sup> Derate at 5 mW/°C above 25 °C

**DIMENSIONS** in inches [millimeters]

**TAPE AND REEL SPECIFICATIONS**


| PARAMETER                 | SYMBOL         | DIMENSIONS inches [mm] |
|---------------------------|----------------|------------------------|
| Tape width                | W              | 0.630 [16.0]           |
| Component pitch           | P              | 0.315 [8.0]            |
| Indexing pitch            | P <sub>0</sub> | 0.157 [4.0]            |
| Index-to-component offset | P <sub>1</sub> | 0.079 [2.0]            |
| Pocket height             | H              | 0.213 [5.4]            |
| Tape thickness            | T              | 0.012 [0.3]            |
| Reel overall diameter     | OD             | 13.0 [330]             |
| Reel axle diameter        | AD             | 0.5 [13]               |
| Reel capacity             | Qty            | 1000/reel              |



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