

Electrical / Environmental

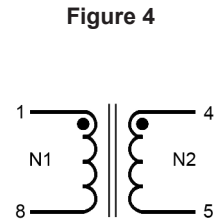
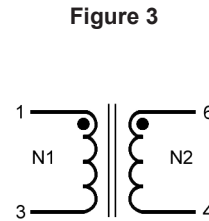
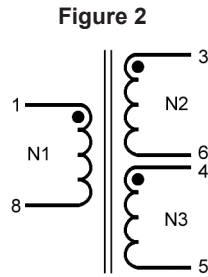
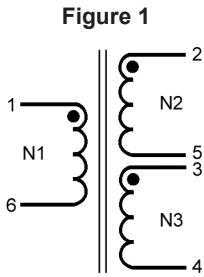
HM42

Gate Drive Transformers

- Operating Temperature Range -40°C to +125°C
- Ambient Temperature, Maximum +85°C
- 1500Vdc Isolation between Gate and Drive
- Basic Insulation 1500Vrms between Primary and Secondary



Electrical Schematics



Specifications @ 25°C

| Part Number | Tur ns | Primary Inductance (μH Min) | Leakage Inductance (μH Max) | V*μsec (Max) | Primary DCR (Ω Max) | Secondary DCR (Ω Max) | Pri-Sec Insulation | Electrical Schematic | Case Size |
|--------------|--------|-----------------------------|-----------------------------|--------------|---------------------|-----------------------|--------------------|----------------------|-----------|
| HM42-10001LF | 1:1:1 | 300 | 0.50 | 80.9 | 2.00 | 2.00 | 1500Vdc | Figure 1 | 10 |
| HM42-10002LF | 2:1:1 | 300 | 0.50 | 40.4 | 2.00 | 1.00 | 1500Vdc | Figure 1 | 10 |
| HM42-20001LF | 1:1 | 695 | 0.50 | 29.3 | 1.00 | 1.00 | 1500Vdc | Figure 3 | 20 |
| HM42-20002LF | 1:1 | 785 | 0.46 | 31.5 | 0.60 | 0.60 | 1500Vdc | Figure 3 | 20 |
| HM42-30001LF | 1:1:1 | 980 | 0.75 | 30.2 | 0.50 | 0.50 | 1500Vac | Figure 1 | 30 |
| HM42-30002LF | 1:1 | 980 | 0.75 | 30.2 | 0.50 | 0.50 | 1500Vac | Figure 3 | 30 |
| HM42-30003LF | 1:1:1 | 1500 | 0.50 | 37.8 | 0.62 | 0.62 | 1500Vac | Figure 1 | 30 |
| HM42-40001LF | 1:1:1 | 3300 | 0.70 | 68.0 | 1.60 | 1.60 | 1500Vdc | Figure 2 | 40 |
| HM42-40002LF | 1:1 | 1400 | 0.50 | 49.1 | 0.60 | 0.60 | 1500Vac | Figure 4 | 40 |
| HM42-40003LF | 1:1 | 1200 | 0.50 | 45.4 | 0.50 | 0.50 | 1500Vac | Figure 2 | 40 |
| HM42-40004LF | 2:1:1 | 1200 | 0.60 | 45.4 | 0.60 | 0.30 | 1500Vac | Figure 2 | 40 |

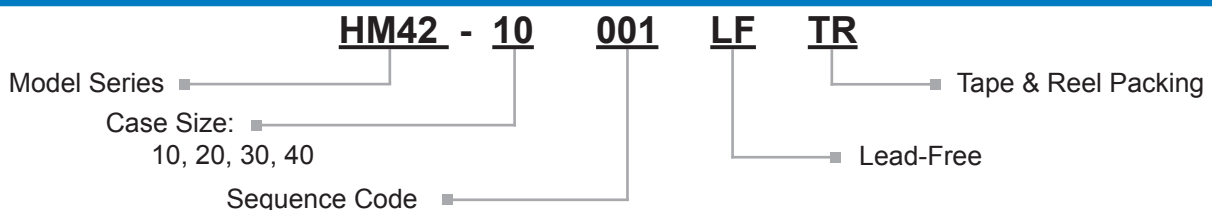
- Notes: (1) Inductance is measured at 100kHz, 0.1Vrms.
 (2) It is recommended that the temperature of the component (ambient plus temperature rise) does not exceed 125°C under worst case operating conditions.

Packaging

Standard: Embossed Tape & Reel

| | | | |
|-------|-----------|--------------|---------------|
| Reel: | Diameter: | = | 13" (330.2mm) |
| | Capacity: | Case size 10 | = 750 Units |
| | | Case size 20 | = 1,500 Units |
| | | Case size 30 | = 1,000 Units |
| | | Case size 40 | = 450 Units |

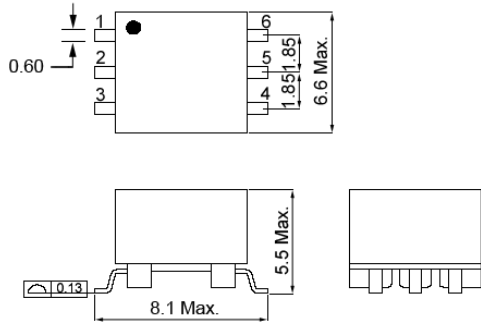
Ordering Information



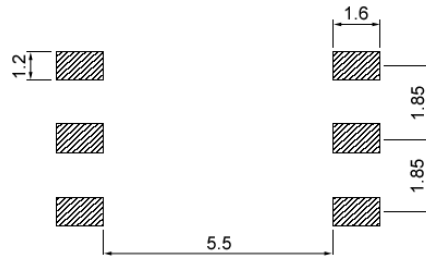
Last Updated: 9 April 2015

Outline Dimensions (Inch/mm)

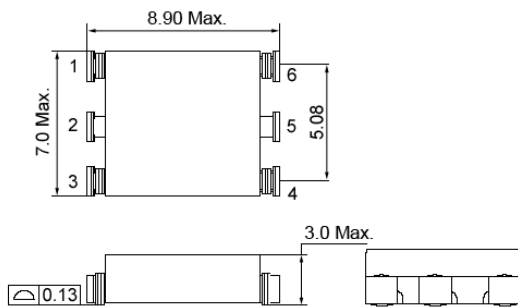
Case 10



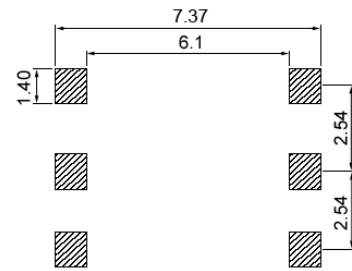
Recommended Solder Pad Layout



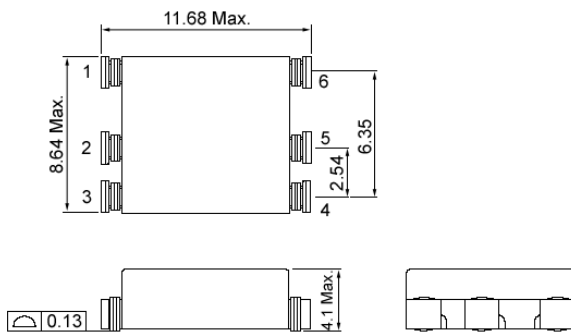
Case 20



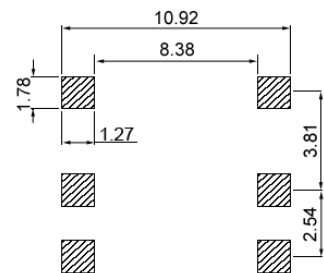
Recommended Solder Pad Layout



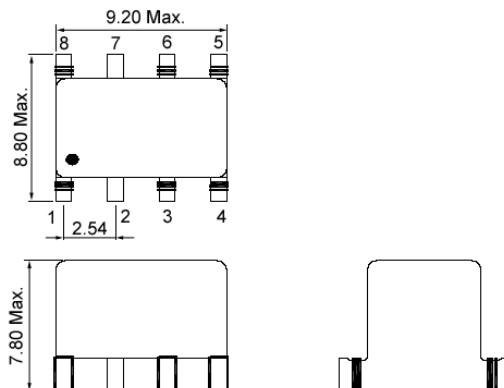
Case 30



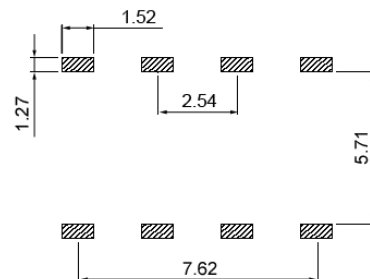
Recommended Solder Pad Layout



Case 40



Recommended Solder Pad Layout



Mouser Electronics

Authorized Distributor

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TT Electronics:

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[HM42-30003LFTR](#) [HM42-40001LFTR](#) [HM42-40002LFTR](#) [HM42-40003LFTR](#) [HM42-40004LFTR](#)