



Base/Gate Driver Transformers

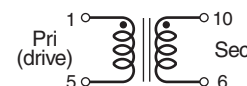


- Lower cost than toroidal equivalents
- Frequency range of 10 - 250 kHz and up
- Industry standard pin centers
- VDE, IEC, UL, CSA compliant
- 3750 Vrms isolation between windings
- Constructed with UL approved Class 130°C insulation system (UL File E83628)

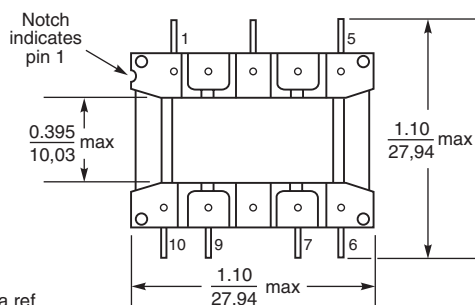
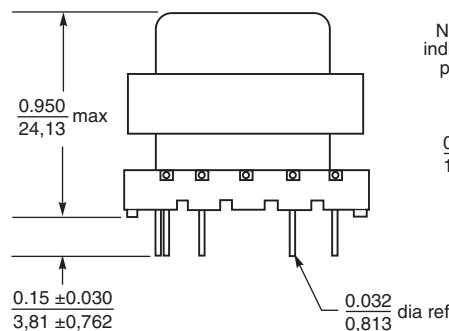
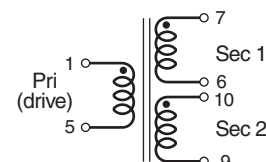
	SD250-1L	SD250-2L	SD250-3L	SD250-4L
Turns ratio $\pm 3\%$ (pri : sec)	1 : 1	1 : 1.5	1 : 1 : 1	1 : 1.5 : 1.5
Primary winding				
Inductance (min) ¹	1.5 mH	1.5 mH	1.5 mH	1.5 mH
Leakage inductance (max) ¹	4.0 μ H	4.0 μ H	4.0 μ H	4.0 μ H
DCR	0.4 Ω	0.4 Ω	0.4 Ω	0.4 Ω
Volt-time product	375 V- μ sec	375 V- μ sec	375 V- μ sec	375 V- μ sec
Secondary winding(s)				
Capacitance, pri to sec (max)	50 pF	50 pF	50 pF	50 pF
DCR, each section (max)	0.75 Ω	2.5 Ω	0.75 Ω	2.5 Ω

1. Measured at 1 Vrms, 15.75 kHz.
2. Operating temperature range -40°C to $+85^{\circ}\text{C}$.
3. Electrical specifications at 25°C .

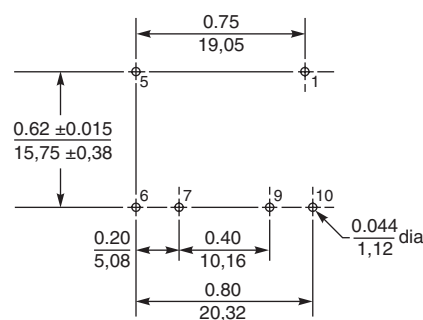
SD250-1 and 250-2



SD250-3 and 250-4



Recommended board layout



Pins 7 and 9 are not present on SD250-1 and SD250-2

Weight: 15.6 – 16.8 g
Termination: Tin-silver over tin over copper
Packaging: 49 per tray

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Specifications subject to change without notice.
 Please check our website for latest information.

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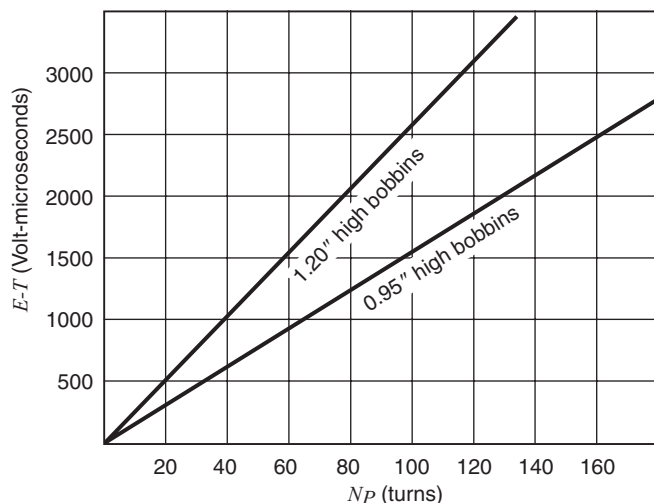


Custom Version Specifications

In addition to the standard base/gate driver transformers shown here, Coilcraft can provide custom versions to meet your specifications.

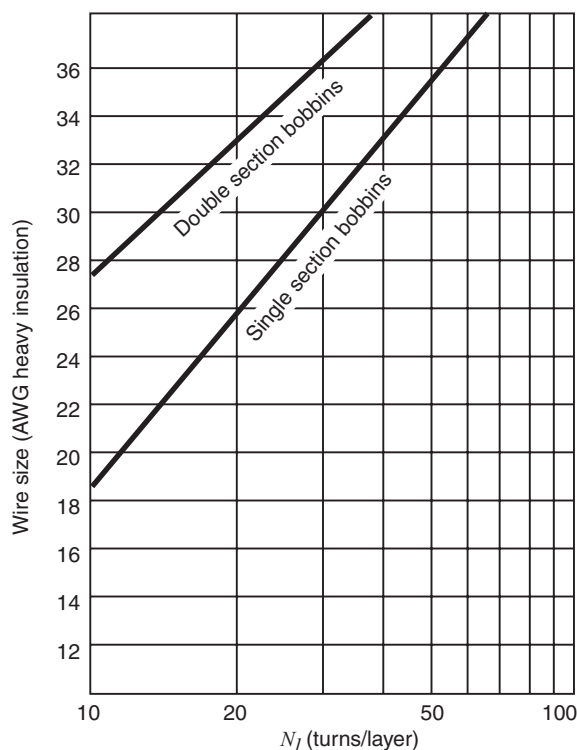
Our two basic structures are the 0.95" high part shown and a 1.20" high version. Both are available with either single or double sections.

Volt-Time vs Primary Turns*



* Applies to both double and single section bobbins.

Turns Per Layer vs Wire Size*



* Applies to both 0.95" and 1.20" high bobbins.

Please use the information below to determine the performance characteristics available.

Core

Initial permeability
 A_e (core cross-sectional area)
 l_e (mean magnetic path length)

0.95" high bobbins	1.20" high bobbins
2000 μ	2000 μ
0.40 cm ²	0.80 cm ²
4.90 cm	4.80 cm

Bobbin

Material
 Number of terminals available
 Number of wiring sections available

UL94V-0, 130°C
10
1 or 2

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