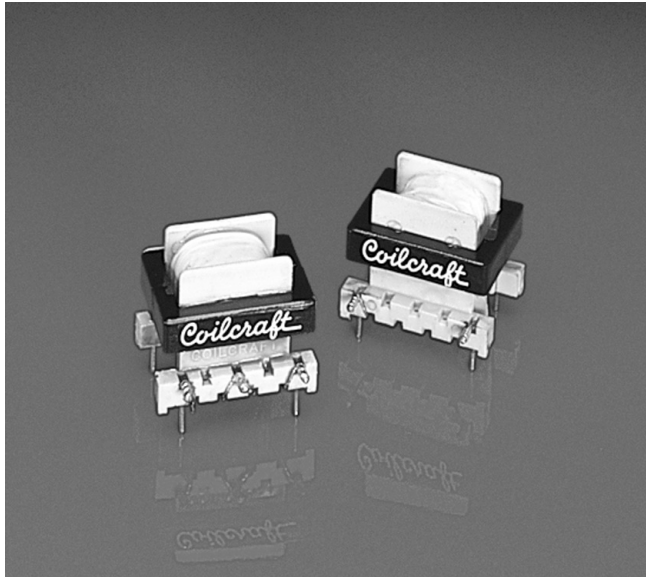


Base/Gate Driver Transformers

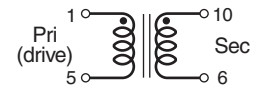


- Lower cost than toroidal equivalents
- Frequency range of 10 – 250 kHz and up
- Industry standard pin centers
- 3750 Vrms, one minute isolation (hipot) between primary and secondary windings; 1500 Vrms, one minute between secondaries
- UL1446 Class B (130°C) Insulation System (UL File E83628)

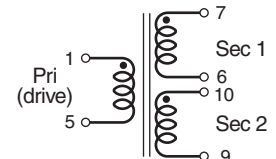
Coilcraft **Designer's Kit No. P404** contains samples of four standard driver transformers. To order, contact Coilcraft or visit <http://order.coilcraft.com> to purchase on-line.

	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

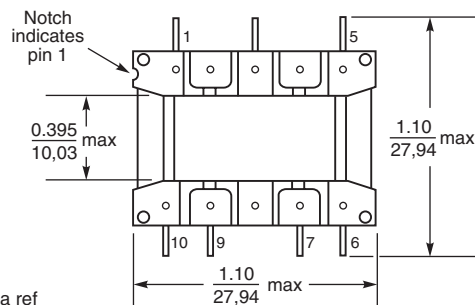
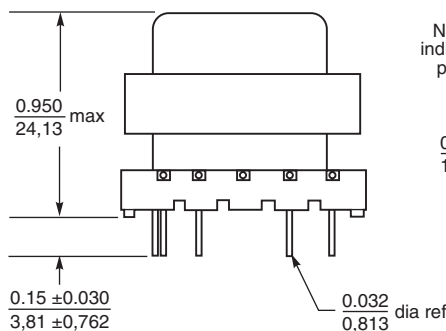
SD250-1 and 250-2



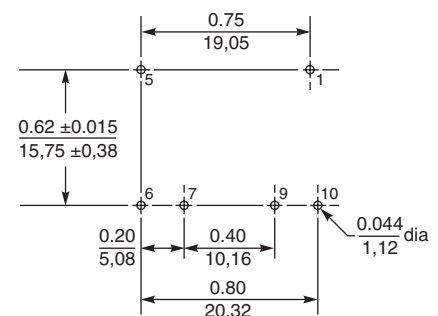
SD250-3 and 250-4



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 .



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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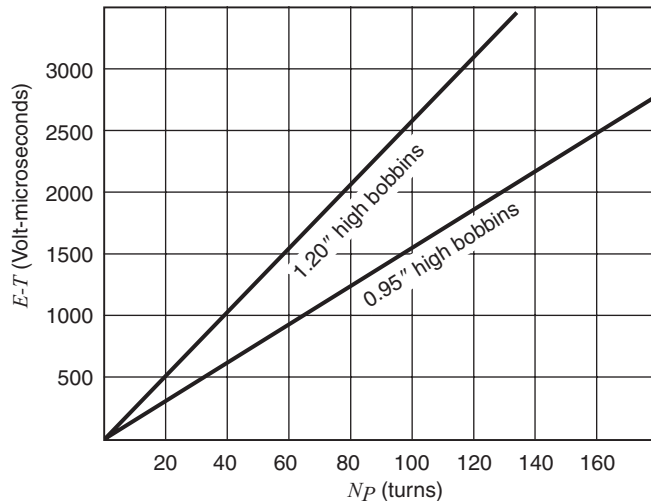


Custom Version Specifications

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

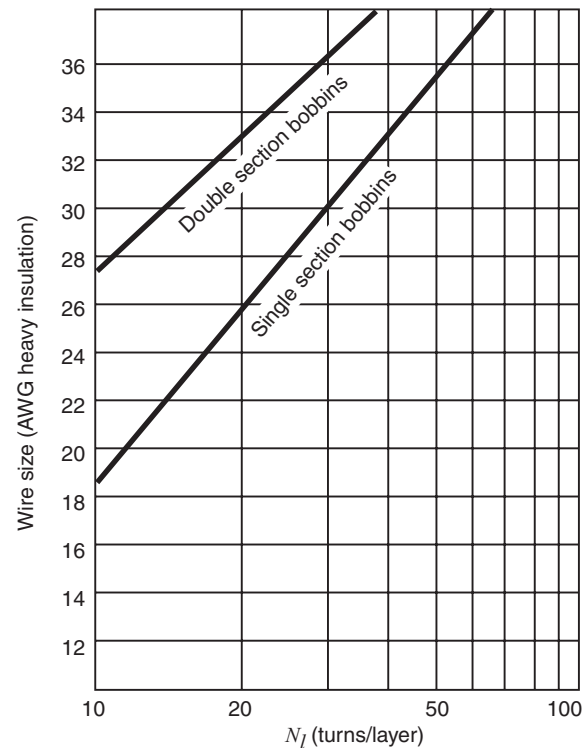
Our two basic structures are the 0.95" high part shown and a 1.20" high version. Both are available with either single or double sections.

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

	<u>0.95" high bobbins</u>	<u>1.20" high bobbins</u>
Initial permeability	2000 μ	2000 μ
A_e (core cross-sectional area)	0.40 cm ²	0.80 cm ²
l_e (mean magnetic path length)	4.90 cm	4.80 cm

Bobbin

	UL94V-0, 130°C	
Material		
Number of terminals available	10	10
Number of wiring sections available	1 or 2	1 or 2



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