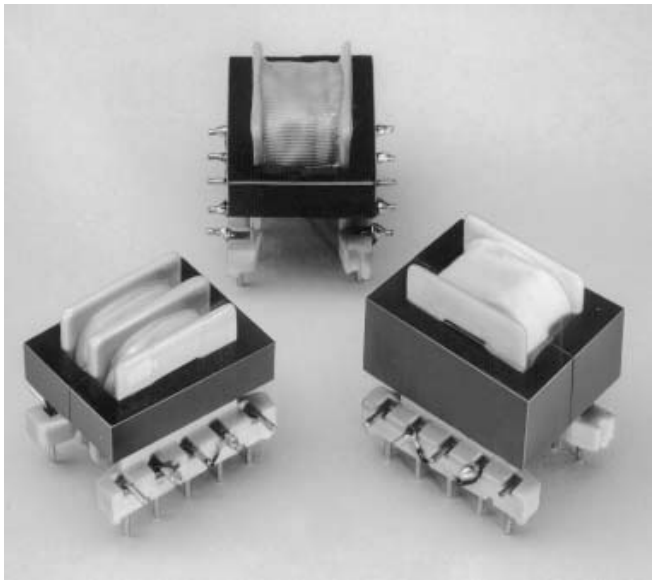
Base/Gate Driver Transformers



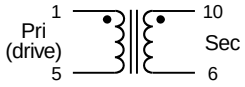
- Lower cost than toroidal equivalents
- Frequency range of 10 - 250 kHz and up
- Industry standard pin centers
- VDE, IEC, UL, CSA compliant
- 3750 Vrms isolation between windings
- Constructed with UL approved Class 130°C insulation system (UL File E83628)

Coilcraft **Designer's Kit No. P204** contains samples of four standard driver transformers. To order, contact Coilcraft or visit **http://order.coilcraft.com** to purchase on-line.

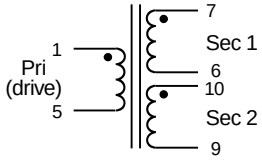
Standard Version Specifications

	SD250-1	SD250-2	SD250-3	SD250-4
Turns ratio (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 µH	4.0 µH	4.0 µH	4.0 µH
DCR	0.4 Ω	0.4 Ω	0.4 Ω	0.4 Ω
Volt-time product	375 V-µsec	375 V-µsec	375 V-µsec	375 V-µsec
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

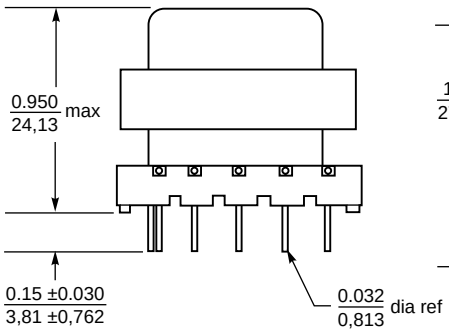
SD250-1 and 250-2

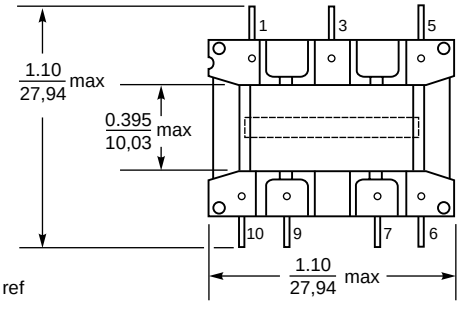


SD250-3 and 250-4

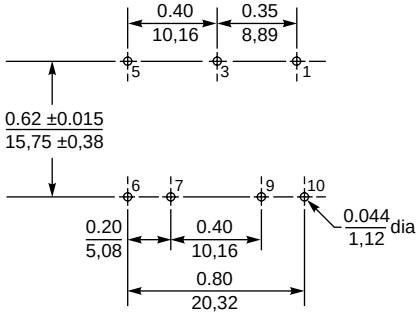


1. Measured at 1 Vrms, 15.75 kHz.
2. Operating temperature range –40°C to +85°C.
3. Electrical specifications at 25°C.





Recommended board layout



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

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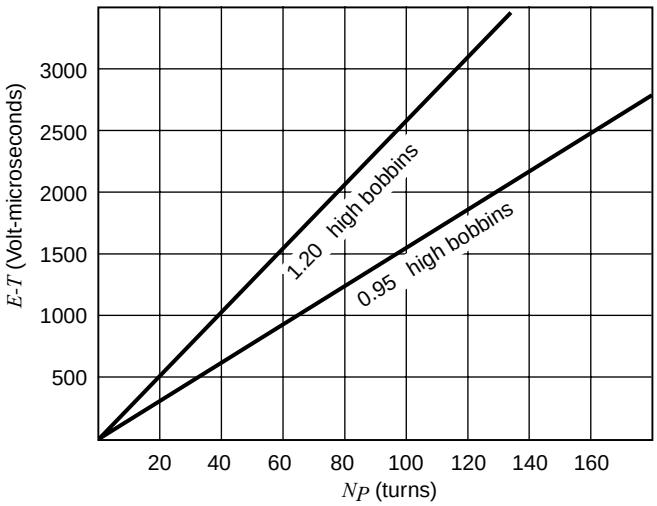
Custom Version Specifications

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

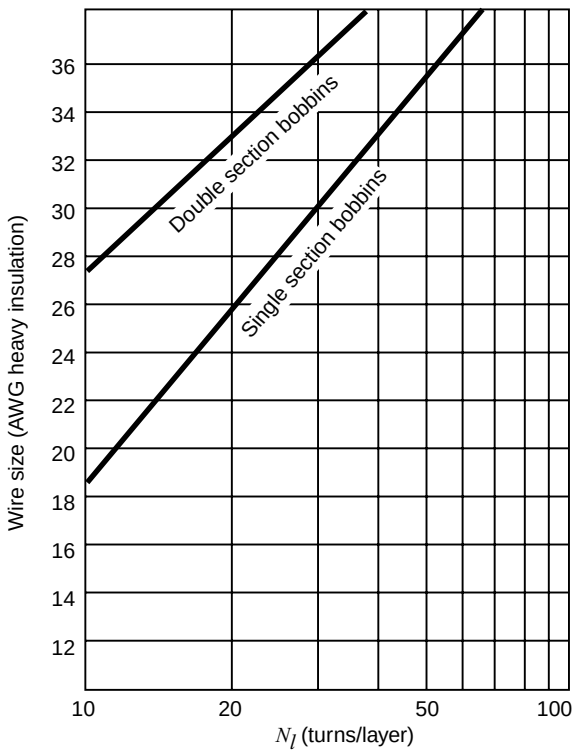
Our two basic structures are the 0.95″ high part shown and a 1.20″ high version. Both are available with either single or double sections.

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

	0.95″ high bobbins	1.20″ high bobbins
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

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

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