Magnetic Components

Switch Mode Magnetics

Air Core Inductors

Switch Mode Magnetics

CUSTOM DESIGN AND PRODUCTION

Vishay Dale has extensive facilities for custom design and production of custom magnetics. Design applications include:

- PWM, PSM and FM Transformers
- Pulse and Trigger Transformers
- Test Measurement Transformers
- Power Transformers
- Power, Filter and Switchmode Inductors
- Telecommunications/Audio Transformers

Design Input forms for the above design applications follow:

PACKAGE DESIGN AND MATERIALS

If you have your own electrical design we can add value by assisting you with selection of the most economical materials and efficient packaging design.

Vishay Dale can provide designs to meet UL, CSA, IEEE and VDE requirements.

Produced to your specifications for a wide range of high frequency applications including: Television, Radio (2-way, scanners, AM/FM), Satellite Communication, Cable TV Systems, Microwave, Test Equipment.

ELECTRICAL SPECIFICATIONS

Frequency: to 500 MHz

Current: 10 amp maximum

Temperature: to + 130 °C

MECHANICAL SPECIFICATIONS

Winding: 1 to 32 turns, clockwise or counter-clockwise with variable pitch

Wire Gauge: #18 to #32

Leads: Automatically tinned. Various configurations available

Coil Inside Diameter: 0.079" to 0.354" [2.01 mm to 8.99 mm]

Coil Length: up to 1.26" [32.0 mm]

Can't find it in the catalog? Vishay Dale has the custom capability to design and produce a wide range of magnetic components to your requirements.

POWER TRANSFORMERS

50 to 400 Hz, VA ratings to 100 VA. Specialty models in Low Profile and PC Mount.

INDUCTORS

Inductance values to 20 H, current ratings to 60 amps. Capability of many styles including: Toroidal, Laminated, E Core, Pot Core, Slug Core, Air Core

AUDIO TRANSFORMERS

Coupling Transformers and Hybrid Transformers available in PC Mount, Leadset and Low Profile

TRANSFORMERS

Switching Magnetics, Converter Transformers, Pulse Transformers, High Voltage Transformers

Power Transformer Design Information

CONTACT INFORMATION

Contact Person _____ E-Mail _____

Phone # _____ - _____ - _____ Fax # _____ - _____ - _____ Company _____

General Application of this product: _____

ELECTRICAL REQUIREMENTS

Approximate Output Power: _____ VA

Minimum Line Frequency (Hz):
50 60 400 1K 100K 150K 250K Other: _____

Maximum Temperature Rise (°C):
10 20 30 40 50 Other: _____

Efficiency: _____ %

Isolation Voltage: _____ Vac/Vdc

Interwinding Capacitance (Ciw): _____ pF

Duty Cycle: _____ %

Primary Input Voltage:
90 100 115 120 200 230 240 115/230 Other: _____

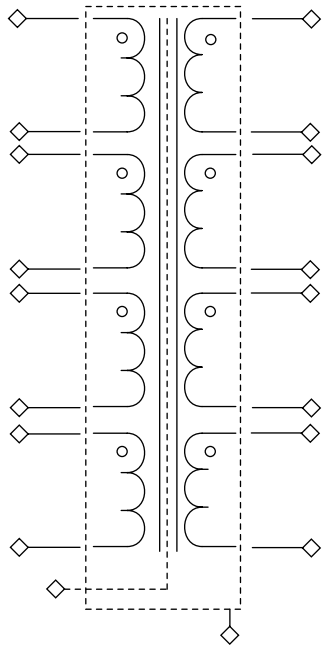
Protection (Resettable or Single Use):
Thermal Fused Other: _____

Regulation: _____ %

Agency Requirements: UL VDE CSA IEC

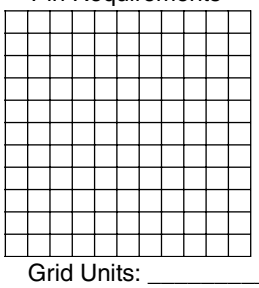
Leakage Ind. (LI): _____ µH

SCHEMATIC



Voltage: _____	Voltage: _____	AC or DC	Other Requirements:	
Current: _____	Current: _____	Rms or Peak	_____	
L: _____	Rect: _____	HW FW FWB	_____	
Voltage: _____	Voltage: _____	AC or DC	Other Requirements:	
Current: _____	Current: _____	Rms or Peak	_____	
L: _____	Rect: _____	HW FW FWB	_____	
Voltage: _____	Voltage: _____	AC or DC	Other Requirements:	
Current: _____	Current: _____	Rms or Peak	_____	
L: _____	Rect: _____	HW FW FWB	_____	
Voltage: _____	Voltage: _____	AC or DC	Budgetary/Target Price:	
Current: _____	Current: _____	Rms or Peak	_____ at _____ pcs	
L: _____	Rect: _____	HW FW FWB		
Screen or Shield	Outer Shield			
Thick: _____	Thick: _____			
Material: _____	Material: _____			

Pin Requirements



Grid Units: _____

PHYSICAL REQUIREMENTS

Flame Retardant:	Yes	No	Mounting Style:	
Standard Varnish:	Yes	No	Thru Hole Surface Mount Flying Leads Other	
Encapsulated:	Yes	No	Length (Max.): _____	
Hermetically Sealed:	Yes	No	Width (Max.): _____	
Shielded:	Yes	No	Height (Max.): _____	Temperature Class (°C): 105 130 155 180 200

OTHER REQUIREMENTS

_____

_____

_____

_____ (Continue on seperate sheet if necessary)

PRIORITIZATION (1-HIGHEST)

_____ Size

_____ Efficiency

_____ Cost

Power Transformer Design Information

CONTACT INFORMATION

Contact Person _____ E-Mail _____

Phone # _____ - _____ - _____ Fax # _____ - _____ - _____ Company _____

General Application of this product: _____

ELECTRICAL REQUIREMENTS

Approximate Output Power: _____ VA

Minimum Line Frequency (Hz):
50 60 400 1K 100K 150K 250K Other: _____

Maximum Temperature Rise (°C):
10 20 30 40 50 Other: _____

Efficiency: _____ %

Isolation Voltage: _____ Vac/Vdc

Interwinding Capacitance (Ciw): _____ pF

Duty Cycle: _____ %

Primary Input Voltage:
90 100 115 120 200 230 240 115/230 Other: _____

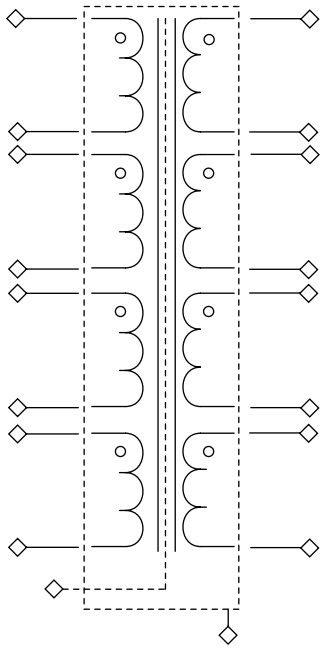
Protection (Resettable or Single Use):
Thermal Fused Other: _____

Regulation: _____ %

Agency Requirements: UL VDE CSA IEC

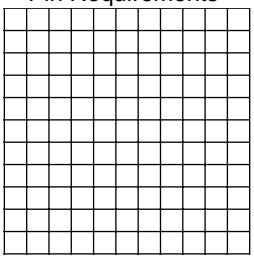
Leakage Ind. (LI): _____ µH

SCHEMATIC



Voltage: _____	Voltage: _____	AC or DC	Other Requirements:	
Current: _____	Current: _____	Rms or Peak	_____	
L: _____	Rect: _____	HW FW FWB	_____	
Voltage: _____	Voltage: _____	AC or DC	Other Requirements:	
Current: _____	Current: _____	Rms or Peak	_____	
L: _____	Rect: _____	HW FW FWB	_____	
Voltage: _____	Voltage: _____	AC or DC	Other Requirements:	
Current: _____	Current: _____	Rms or Peak	_____	
L: _____	Rect: _____	HW FW FWB	_____	
Voltage: _____	Voltage: _____	AC or DC	Budgetary/Target Price:	
Current: _____	Current: _____	Rms or Peak	_____ at _____ pcs	
L: _____	Rect: _____	HW FW FWB		
Screen or Shield	Outer Shield			
Thick: _____	Thick: _____			
Material: _____	Material: _____			

Pin Requirements



Grid Units: _____

PHYSICAL REQUIREMENTS

Flame Retardant: Yes No
Standard Varnish: Yes No
Encapsulated: Yes No
Hermetically Sealed: Yes No
Shielded: Yes No

Mounting Style:
Thru Hole Surface Mount Flying Leads Other

Length (Max.): _____
Width (Max.): _____
Height (Max.): _____

Temperature Class (°C):
105 130 155 180 200

OTHER REQUIREMENTS

_____

_____

_____

_____ (Continue on seperate sheet if necessary)

PRIORITIZATION (1-HIGHEST)

_____ Size

_____ Efficiency

_____ Cost

PWM, PSM & FM Transformer Design Information

CONTACT INFORMATION

Contact Person _____ E-Mail _____
Phone # _____ - _____ - _____ Fax # _____ - _____ - _____ Company _____
General Application of this product: _____

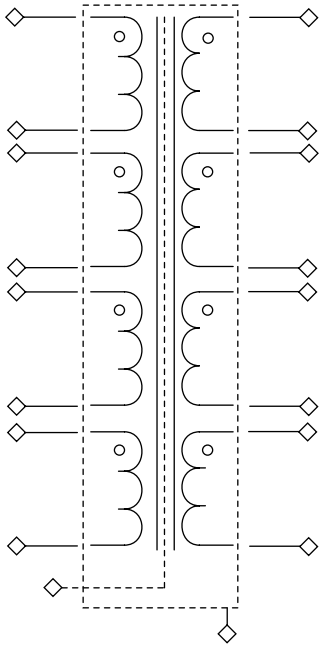
ELECTRICAL REQUIREMENTS

Primary Voltage _____ Vac/Vdc Frequency: _____ Hz
Secondary Voltage _____ Vac/Vdc
Secondary Current _____ A (Max.)
Driver Current _____ A (Max.)
Size of Storage Capacitors _____ F
Maximum Temperature rise (°C)
10 20 30 40 50 Other _____

Isolation Voltage: _____ Vac/Vdc
Duty Cycle: _____ %
Circuit Type: PWM PSM FM Other: _____
Driver Type: SCR FET PWM Other: _____
Protection (Resettable or Single Use):
Thermal Fused Other _____

Build to Agency Requirements: UL VDE CSA IEC MIL-Spec _____
Certify to Agency Requirements: UL VDE CSA IEC MIL-Spec _____
Leakage L: _____ µH (Max.) Ciw: _____ pF (Max.) ET: _____ V-µsec

SCHEMATIC



Voltage: _____	Voltage: _____	AC or DC	Other Requirements:
Current: _____	Current: _____	Rms or Peak	_____
L: _____	Rect: _____	HW FW FWB	_____
Voltage: _____	Voltage: _____	AC or DC	Other Requirements:
Current: _____	Current: _____	Rms or Peak	_____
L: _____	Rect: _____	HW FW FWB	_____
Voltage: _____	Voltage: _____	AC or DC	Other Requirements:
Current: _____	Current: _____	Rms or Peak	_____
L: _____	Rect: _____	HW FW FWB	_____
Voltage: _____	Voltage: _____	AC or DC	Budgetary/Target Price:
Current: _____	Current: _____	Rms or Peak	_____ at _____ pcs
L: _____	Rect: _____	HW FW FWB	
Screen or Shield	Outer Shield		
Thick: _____	Thick: _____		
Material: _____	Material: _____		

PHYSICAL REQUIREMENTS

Flame Retardant: Yes No
Standard Varnish: Yes No
Encapsulated: Yes No
Hermetically Sealed: Yes No
Shielded: Yes No

Mounting Style:
Thru Hole Surface Mount Flying Leads Other
Length (Max.): _____
Width (Max.): _____
Height (Max.): _____

Temperature Class (°C):
105 130 155 180 200

Grid Units: _____

OTHER REQUIREMENTS

_____
_____
_____
_____ (Continue on seperate sheet if necessary)

PRIORITIZATION (1-HIGHEST)

_____ Size
_____ Efficiency
_____ Cost

Power, Filter and Switchmode Inductor Design Information

CONTACT INFORMATION

Contact Person _____ E-Mail _____

Phone # _____ - _____ - _____ Fax # _____ - _____ - _____ Company _____

General Application of this product: _____

ELECTRICAL REQUIREMENTS

L: _____ H

DC Bias: _____ Adc

L at DC Bias: _____ H

Q Min. at nominal L: _____

% of Saturation (Max.):_____ %

AC Current or Voltage Level:_____ Aac or Vac

DC Current or Voltage Level:_____ Adc or Vdc

Impedance: _____ Ohms at _____ Hz

Frequency (range): _____ Hz

SRF: _____ Hz

ET: _____ V-µsec

DCR (Max.): _____ Ohms

Dielectric Range: _____ Vac/Vdc

Operating Temperature Range: _____ to _____

Maximum Temperature Rise (°C): 10 20 30 40 50 _____

SCHEMATIC

Voltage: _____ AC or DC

Current: _____ Rms or Peak

Other: _____

Voltage: _____ AC or DC

Current: _____ Rms or Peak

Other: _____

Voltage: _____ AC or DC

Current: _____ Rms or Peak

Other: _____

Voltage: _____ AC or DC

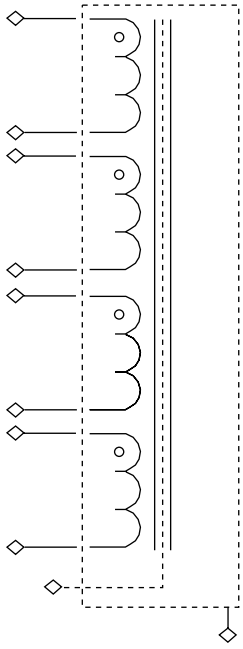
Current: _____ Rms or Peak

Other: _____

Screen or Shield

Thick: _____

Material: _____



Outer Shield

Thick: _____

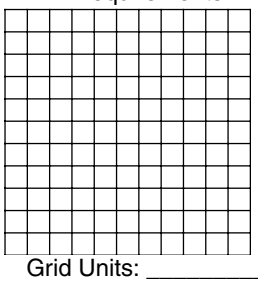
Material: _____

BUCK AND BOOST INDUCTORS		
Input Voltage	_____	V
Output Voltage	_____	V
Switching Frequency:	_____	Hz
Maximum DC Output Current:	_____	A
Minimum DC Output Current:	_____	A
Maximum Duty Cycle:	_____	%
Minimum Duty Cycle:	_____	%
AC Ripple:	_____	%

Budgetary/Target Price:

_____ at _____ pcs.

Pin Requirements



Grid Units: _____

PHYSICAL REQUIREMENTS

Flame Retardant: Yes No

Standard Varnish: Yes No

Encapsulated: Yes No

Hermetically Sealed: Yes No

Shielded: Yes No

Mounting Style: Vertical or Horizontal

Thru Hole Surface Mount Flying Leads Other

Inside Diameter (Min.): _____

Length (Max.): _____

Width (Max.): _____

Height (Max.): _____

Temperature Class (°C):

105 130 155 180 200

OTHER REQUIREMENTS

_____

_____

_____

_____ (Continue on seperate sheet if necessary)

PRIORITIZATION (1-HIGHEST)

_____ Size

_____ Efficiency

_____ Cost

Telecommunications/Audio Transformer Design Information

CONTACT INFORMATION

Contact Person _____ E-Mail _____

Phone # _____ - _____ - _____ Fax # _____ - _____ - _____ Company _____

General Application of this product: _____

ELECTRICAL REQUIREMENTS

Application Type: Modem Audio xDSL

Power Rating: _____ Watts

Primary Voltage: _____ Vac/Vdc

Primary Impedance: _____ Ohms

Secondary Impedance: _____ Ohms

Turns Ratio: _____ (if known)

Isolation Voltage: _____ Vac/Vdc

DC Loop Current: _____ mA dc

Maximum Drive Level: _____ dbm Vrms

ref Resistance: _____ Ohms

Return Loss: _____ db (Min.)

Frequency Range: _____ Hz to _____ Hz

Frequency Response: ref ____ Hz ± ____ db from ____ Hz to ____ Hz

Insertion/Transducer Loss: ± ____ db (Max.) or ± ____ db at ____ Hz

Longitudinal Transverse Balance:

_____ db (Min.) from _____ Hz to _____ Hz

_____ db (Min.) from _____ Hz to _____ Hz

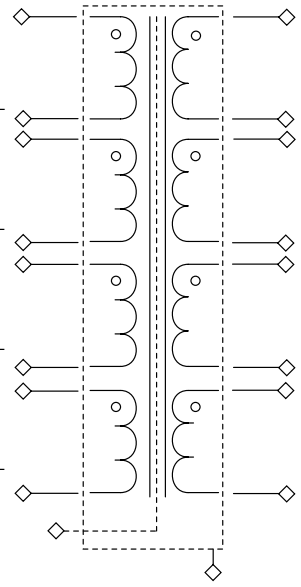
Crosstalk: _____ db or better from _____ Hz to _____ Hz

w/ _____ spacing.

Distortion: _____ % Maximum

Leakage L: _____ µH (Max.) Ciw: _____ pF (Max.) DCR: _____ Ohms

SCHEMATIC



Z:_____
L:_____
DC current: _____
Z:_____
L:_____
DC current: _____
Z:_____
L:_____
DC current: _____
Z:_____
L:_____
DC current: _____
Screen or Shield
Thick: _____
Material: _____

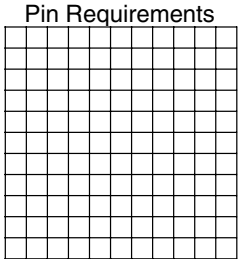
Z:_____
L:_____
Output: Single Push-Pull
Z:_____
L:_____
Output: Single Push-Pull
Z:_____
L:_____
Output: Single Push-Pull
Z:_____
L:_____
Output: Single Push-Pull
Outer Shield
Thick: _____
Material: _____

Build or Certify to Agency Requirements:
UL/CSA FCC BABT Other
_____

Modem Specifications:
V.22 V.29 V.32 V.34 V.90

Budgetary/Target Price:
_____ at _____ pcs.

Pin Requirements



Grid Units: _____

PHYSICAL REQUIREMENTS

Flame Retardant: Yes No
Standard Varnish: Yes No
Encapsulated: Yes No
Hermetically Sealed: Yes No
Shielded: Yes No

Mounting Style:
Thru Hole Surface Mount Flying Leads Other

Length (Max.): _____
Width (Max.): _____
Height (Max.): _____

Temperature Class (°C):
105 130 155 180 200

OTHER REQUIREMENTS

_____
_____
_____
_____ (Continue on seperate sheet if necessary)

PRIORITIZATION (1-HIGHEST)

_____ Size
_____ Efficiency
_____ Cost

Test and Measurement Transformer Design Information

CONTACT INFORMATION

Contact Person _____ E-Mail _____

Phone # _____ - _____ - _____ Fax # _____ - _____ - _____ Company _____

General Application of this product: _____

ELECTRICAL REQUIREMENTS

Primary Voltage: _____ Vac/Vdc

Primary Current Range: _____ Ohms

Desired Secondary Voltage: _____ Ohms

Turns Ratio: _____ (if known)

Accuracy Required: _____ %

Ratio Error: _____ at 10 %

_____ at 100 %

Dielectric Rating: _____ Vac/Vdc

Frequency range: _____ Hz to _____ ref _____ Hz

Load/Burden Resistance: _____ Ohms

Isolation Voltage: _____ Vac/Vdc

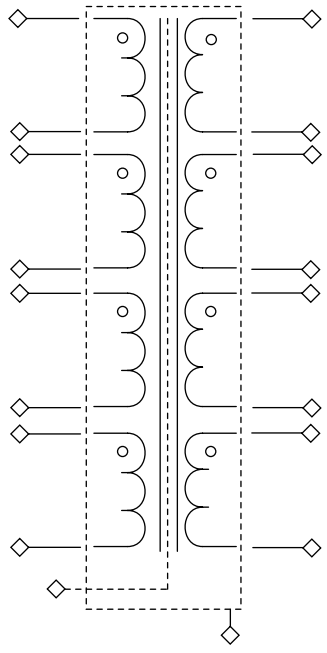
DC Current: _____ mAdc

Maximum Phase Error Angle: _____ at 10 %

_____ at 100 %

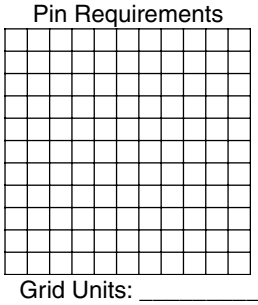
Operating Temperature Range: _____ to _____

SCHEMATIC



Voltage: _____	Voltage: _____	AC or DC	Other Requirements:
Current: _____	Current: _____	Rms or Peak	_____
Other: _____	RL: _____	Ohms	_____
Voltage: _____	Voltage: _____	AC or DC	Other Requirements:
Current: _____	Current: _____	Rms or Peak	_____
Other: _____	RL: _____	Ohms	_____
Voltage: _____	Voltage: _____	AC or DC	Other Requirements:
Current: _____	Current: _____	Rms or Peak	_____
Other: _____	RL: _____	Ohms	_____
Voltage: _____	Voltage: _____	AC or DC	Budgetary/Target Price:
Current: _____	Current: _____	Rms or Peak	_____ at _____ pcs
Other: _____	RL: _____	Ohms	
Screen or Shield	Outer Shield		
Thick: _____	Thick: _____		
Material: _____	Material: _____		

Pin Requirements



Grid Units: _____

PHYSICAL REQUIREMENTS

Flame Retardant: Yes No

Standard Varnish: Yes No

Encapsulated: Yes No

Hermetically Sealed: Yes No

Shielded: Yes No

Mounting Style: Vertical or Horizontal

Thru Hole Surface Mount Flying Leads Other _____

Inside Diameter (Min.): _____

Length (Max.):_____

Width (Max.): _____

Height (Max.): _____

Temperature Class (°C):

105 130 155 180 200

OTHER REQUIREMENTS

_____

_____

_____

_____ (Continue on seperate sheet if necessary)

PRIORITIZATION (1-HIGHEST)

_____ Size

_____ Efficiency

_____ Cost

Custom Design Grid