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Product Highlights for Lighting



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WHY CHOOSE SIGNAL FOR LIGHTING?

Signal offers a large selection of Lighting products such as Isolation Transformers, Drum Core Inductors, SMT Transformers, Shielded SMD Inductors, Unshielded SMD Inductors, and Class 2 Transformers. Signal also provides custom designs upon request. The latest Lighting Transformer Series are especially designed for industries and OEM manufacturers that require to operate landscape, track, recessed and LED lighting along with security systems that are in the commercial, consumer and industrial sectors. Signal provides a substantial amount of information for each product and values their customers.

Lighting at Signal is cost-effective and has a strong focus on sustainability by providing products and services of exceptional quality. Signal takes pride in innovation and continuously finds ways to enhance their performance. Meeting customers' expectations is a priority and Signal is constantly making improvements.



SMD POWER INDUCTORS

SMD Power Inductors are a new series of high efficiency shielded and non-shielded surface mount power inductors. These SMD wire wound power inductors are sized to industry standard packages. Product highlights include multiple profile heights within the same footprint and low EMI.

Emergence of LEDs as the most efficient lighting is driving electronic technology of SMD inductors to ensure that LEDs are powered sufficiently to achieve the highest level of performance and luminescence. Increased importance is also placed on cost savings and quick delivery times by design engineers and OEM manufacturers who specify and build products which include LED lighting, including consumer, commercial, industrial, vehicle and emergency transportation, fire and security, gaming, medical and automation markets.

Signal's SMD inductors are brightening the world on LED street lights, off road vehicle LED light bars, LED Slot Machines, industrial LED lights and more. Signal has over 3,400 different inductor SKUs in shielded, unshielded, low profile, low EMI, high current, high frequency, dual windings and more. Custom designs are also available.





LIGHTING DESIGN KIT

The Lighting Design Kit is a

sample kit specially made for design engineers of Signal's most favored Shielded SMD Inductors used in Lighting designs. This kit contains 16 different low profile shielded inductor samples with 10 pieces of each part.

Features

- Lower DCR
- Low EMI
- Shielded Design
- Smaller Package

Specifications

- Inductance Range: 0.33uH to 22uH
- DC Current Range: 0.14A to 48A
- DC Resistance Range: 2.0 m Ω to 720 Ω
- Height Range: 1.2mm to 8.0mm
- High Efficiency & High Saturation

Products Include:

- SCIHP1367
- SCIHP1350
- SCIHP1338
- SCIHP0718
- SCIHP0724
- SCIH1040HC
- SCRH5D28
- SCRH129
- SCMS7D43AY



Applications

- Allows design engineers to have the option of low and high inductances on the same platform
 - » Could accommodate the widest range of potential designs
- Allows for immediate testing of the component in their circuit
- Help construct new designs:
 - » Industrial, Theatrical, Landscape, Recessed, Gaming, Street Lights, Off Road Vehicle Designs

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LIGHTING TRANSFORMERS

The compact **LT Transformer** components offer Safety Extra Low Voltage (SELV) outputs designed for industries and OEM installations of landscape, track, recessed and LED lighting, as well as security systems in the commercial, consumer and industrial sectors.

When SELV outputs are required to operate control equipment and other electronic devices, a step-down transformer is needed to convert from 120 V or 277 V to 12 V. Offering a safer work environment, the SELV isolation provided by Signal's LT Transformer Series eliminates potential shock hazards. The LT277-50-12 is ideal for 480 V, three-phase 4-wire systems, where line voltage to neutral is equal to single-phase 277 V 50/60 Hz. The LT120-50-12 is designed for single-phase 120 V 50/60 Hz supplies.





Features

- UL recognized to North American Harmonized standards: UL5085-1-2 and CSA C22.2 No. 66
- Easy to mount and can be hardwired via standard
- 1/2" conduit hardware and a straight box connection
- Corrosion-resistant surface coating that is
 environmentally resilient
- Insulation: Class B (130°C) UL 1446
- Lead Wire Connections: 18AWG UL 1015
- Rugged construction at a reasonable price

Applications

OEM installations of landscape, track, recessed and LED lighting





SURFACE MOUNT INDUCTORS



SCIHP0724 SERIES

The **SCIHP0724 Series** are fixed, shielded surface mount inductors with inductance range from 0.47uH - 10uH and DC resistance from $0.0065\Omega - 0.129\Omega$. Max height of this SMD inductors is 2.4mm. These inductors have lowest DCR/uH in this small package size, frequency range up to 5.0MHz, provide extremely low buzz noise and handles high transient current spikes without saturation.



Features

- Lowest DCR/uH in this small package size
- Frequency range up to 5.0MHz
- -55° to +125° operating temperature
- Handles high transient current spikes without saturation
- Composite construction providing extremely low buzz noise
- Inductance Range has a minimum of 0.47uH and a maximum of 10.0uH

SCIHP1367 SERIES

The **SCIHP1367 Series** are fixed, high current, shielded surface mount inductors with inductance range from 2.2uH - 10uH and DC resistance from $0.0042\Omega - 0.0185\Omega$. Max height of this SMD inductors is 6.7mm. These inductors have lowest DCR/uH in this small package size, frequency range up to 5.0MHz, provide extremely low buzz noise and handles high transient current spikes without saturation.





Features

- Lowest DCR/uH in this small package size
- Frequency range up to 5.0MHz
- -55° to +125° operating temperature
- Handles high transient current spikes without saturation
- Composite construction providing extremely low buzz noise
- Inductance range has a minimum of 2.2uH and a maximum of 22uH

SCRH5D28 SERIES

The **SCRH5D28 Series** are fixed, low current, shielded surface mount inductors with inductance range from 2.6uH - 150uH and DC resistance from



 $0.0181\Omega - 0.956\Omega$. Max height of this SMD inductors is 3.0mm. These inductors have magnetically shielded construction, excellent power density and high efficiency.

Features

- Lowest DCR/uH in this small package size
- Frequency range up to 5.0MHz
- -55° to +125° operating temperature
- Handles high transient current spikes without saturation
- Composite construction providing extremely low buzz noise
- Inductance range has a minimum of 2.6uH and a maximum of 150uH



SURFACE MOUNT INDUCTORS



SCIHP0718 SERIES

The **SCIHP0718 Series** are fixed, shielded surface mount inductors with inductance range from 0.33uH - 10uH and DC resistance from $0.007\Omega - 0.195\Omega$. Max height of this SMD inductors is 1.8mm. These inductors have lowest DCR/uH in this small package size, frequency range up to 5.0MHz, provide extremely low buzz noise and handles high transient current spikes without saturation.



Features

- Lowest DCR/uH in this small package size
- Frequency range up to 5.0MHz
- -55° to +125° operating temperature
- Handles high transient current spikes without saturation
- Composite construction providing extremely low buzz noise
- Inductance range has a minimum of 0.33uH and a maximum of 4.7uH

SCIHP1350 SERIES

The **SCIHP1350 Series** are fixed, high current, shielded surface mount inductors with inductance range from 1.5uH - 10uH and DC resistance from $0.0043\Omega - 0.0282\Omega$. Max height of this SMD inductors is 5.0mm. These inductors have lowest DCR/uH in this small package size, frequency range up to 5.0MHz, provide extremely low buzz noise and handles high transient current spikes without saturation.





Features

- Lowest DCR/uH in this small package size
- Frequency range up to 5.0MHz
- -55° to +125° operating temperature
- Handles high transient current spikes without saturation
- Composite construction providing extremely low buzz noise
- Inductance range has a minimum of 1.5uH and a maximum of 6.8uH

SCRH129 SERIES

The **SCRH129 Series** are fixed, shielded surface mount inductors with inductance range from 10uH -1000uH and DC resistance from



 $0.021\Omega - 1.34\Omega$. Max height of this SMD inductors is 10mm. These inductors have magnetically shielded construction, excellent power density and high efficiency.

Features

- Lowest DCR/uH in this small package size
- Frequency range up to 5.0MHz
- -55° to +125° operating temperature
- Handles high transient current spikes without saturation
- Composite construction providing extremely low buzz noise
- Inductance range has a minimum of 10uH and a maximum of 1000u



TRANSFORMERS



ISOLATED 277 V / 120 V STEP-DOWN TRANSFORMERS SLT SERIES

Signal's new **SLT Series** allows installation of 120 V lighting fixtures in commercial applications or wherever the Mains Supply voltage is 277 V. The SLT's isolated 120 V supply can support traditional incandescent, halogen and/or LED type lighting fixtures.



Features

- Class F Insulation System 155°C
- Meets UL, CSA, VDE and IEC
- Leakage Current < 30 Micro Amps
- Touch Safe Terminals (IP20 Type)

Specifications

- Power: 300 VA to 1000 VA
- Dilelectric Strength: 4000 Vrms Hipot
- Input: Single Primary at 277 V
- Output: Tapped at 115 V, 120 V, 125 V

ECOTRAN SERIES

Signal's **ECO Transformers** utilize split bobbin construction that provides superior isolation with no exposed metallic surfaces. Touch Safe terminal design eliminates potential shock hazards.

Features

- Power 105, 140, 170, 200, 330, 450 V
- A Ratings Dielectric Strength: 4000 V
- Primaries: 115/230 V 50/60 Hz
- CE Compliant Reinforced Insulation
- Dual Secondary Outputs for Series/Parallel Connection
- Insulation System: UL 1446 Class F 155°C
- Leakage Current: <30 μA
- Touch Safe Terminals (IP20 type) offer a crew/binding clamp for hard wiring with optional ¹/₄" Fast-On
- Exterior Surfaces Rated UL 94 V2



Agency Certifications

- CE Compliant: IEC 61558-1, parts 2-4, 2-6
- Insulation System: UL 1446 Class F insulation 155°C
- UL Listed to UL 5085-1, UL 5085-2, CSA C22.2 No. 66.1-06, CSA C22.2 No. 66.2-06



CUSTOM DESIGNS & MODIFIED STOCK

Signal Transformer is no stranger to customer-specific wire wound magnetic designs. There are times when a standard product offering does not meet the exact requirements or you need to combine two or more transformer models into one. Signal Transformer responds quickly with technical support and by interacting with its customers.

LOCAL SUPPORT

Our regional sales offices are ready to provide expert application and sales support. In addition, our extensive network of manufacturers' representatives and distributors bring our products to you. Please call for locations of sales offices near you or visit our website at **belfuse.com/signal**.

TECHNICAL SUPPORT

Signal technical support is always available and can be reached anytime at techhelp@signaltransformer.com.



Modified Stock Product







MODULES GROUP & CIRCUIT PROTECTION



WHY CHOOSE BEL FOR LIGHTING DESIGN & POWER CONTROL?

With Lighting becoming smarter through various applications, Bel has solutions and experience to assist with the development of your products. The Modules Group have the ability to combine power and communications to delivery products that underpins the flexibility and cost-effectiveness that your system demands. Bel has over twenty years of experience in a variety of lighting communication technologies which can be leveraged to develop and manufacture your product.

Bel has developed a variety of lighting solutions which your unique product could be designed around. Customized enclosures can also be designed & provided for your final product, offering a comprehensive solution.

Customized enclosures IP rated

Video communication

Design & knowledgebase includes: Power switching

Battery backup

- PWM
- DALI
- RF
- VLC
- LED control

The **Modules Group** can provide a dedicated, professional design service with a personalized

approach for communication-based designs. Bel is able to leverage its technical knowledge, buying power and high-class components to deliver your requirements. In addition, Bel has manufacturing locations and R&D centers around the world, producing the high-quality that you would demand for your final product. These facilities have been audited by Tier 1 customers and are ISO certified. You will receive direct engineer support during design and once your product reaches mass production, a dedicated sales associate will be on hand to assist with all of your scheduling needs.

CIRCUIT PROTECTION FOR LIGHTING APPLICATIONS

The 0697W and 0697H Series are ideal for lighting applications. Both series have leads for through-hole mounting. They are the same size/footprint and the 0697H is for the UL-style applications whereas the 0697W is for IEC-style applications.



0697H

0697H Series is designed and certified to UL248-14. These are slow blow fuses with 350V AC/100V DC voltage ratings and 250mA to 20A current rating.

0697W

0697W Series is designed and certified to IEC 60127-3, standard sheet 4. These are time lag fuses with 350V AC/72V DC voltage ratings and 1A to 6.3A current rating.





Your ONE SOURCE for ALL your Magnetic Needs

- Speedy service in obtaining the latest safety agency certifications, including UL, CSA, VOE, IEC, EN, TUV, BSI and CE for special customer needs
- Providing annual contract programs with competitive volume pricing
- **About Signal**

Signal Transformer, a Bel group, has designed and manufactured standard and custom power transformers and magnetics since our founding in 1959 in Brooklyn, NY. Utilizing our global manufacturing, engineering and logistics capabilities and the resources of our parent company, Bel Fuse Inc. (NASDAQ: BELFA & BELFB), Signal Transformer is positioned to support your needs wherever you are located.

At Signal Transformer, we are committed to providing the highest-grade magnetics for customers who demand total reliability, on-time delivery and competitive pricing. Year after year, engineers and buyers consistently choose Signal Transformer as their preferred global manufacturer

- Offering customized Stocking Programs, VMI and JIT
- Maintaining a large inventory—over 1,000 different models of chokes and transformers in stock from 1 VA to 10 KVA available off-the-shelf at Arrow, Digi-Key, Mouser and Sager.



of custom and standard transformers, chassis and high frequency chokes and inductors, SMD inductors and wireless charging coils. For over 60 years, Signal has led the magnetics industry with innovation, creativity and reliability.

Signal is headquartered in Lynbrook, NY and our parent company, Bel Fuse Inc., is headquartered in Jersey City, New Jersey. Founded in 1949, Bel designs, manufactures and markets products that power, protect and connect electronic circuits.



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