CAPABILITIES & CUSTOMIZATIONS

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OHMITE®

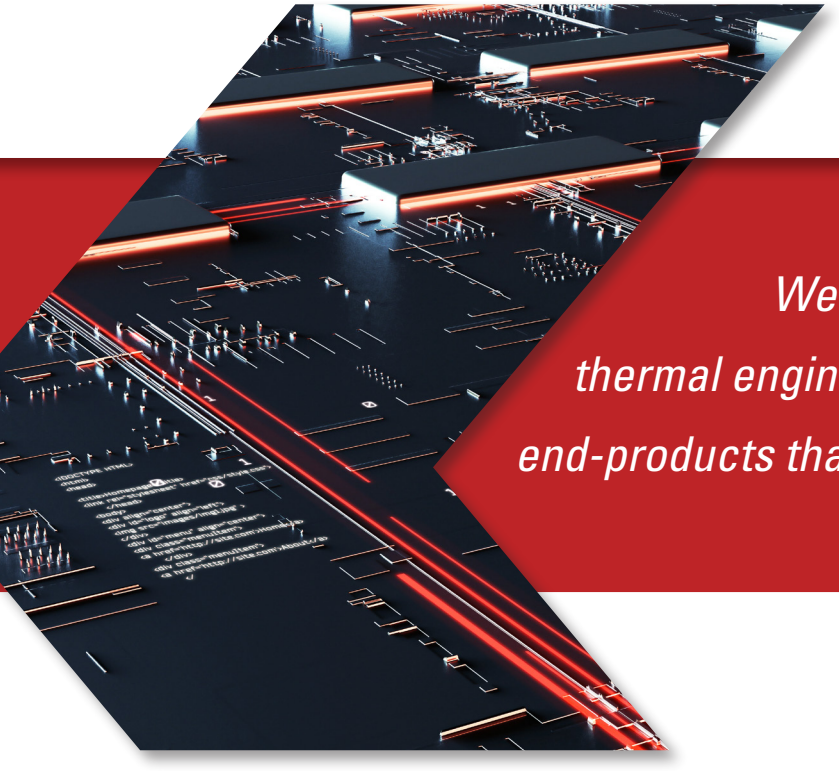
www.ohmite.com

ABOUT OHMITE

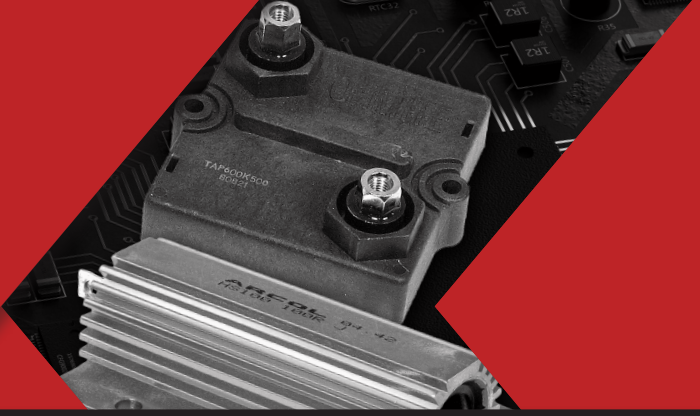
Ohmite Manufacturing Company has been the leading provider of resistive products for high current, high voltage, and high energy applications for over 95 years.

Operations began in a small shop in Chicago in 1925 with carbon and wirewound 'lug' resistors for Chicago's growing radio manufacturing industry. As the needs of the electronics industry evolved, Ohmite has evolved along with it to serve additional aspects of electronic design.

We are dedicated to providing solutions to common design complications with our proven resistive and thermal technology, including a broad selection of resistors, EMI filters, capacitors, power controls, and heatsinks. Our portfolio is rounded out by extensive customization capabilities that ensure a tailored, effective solution to each unique design challenge.



We aim to enable the resistive and thermal engineering community to design end-products that make the world better.



POWER RESISTORS

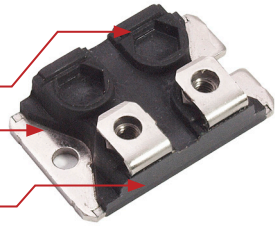
Ohmite has a part series suited for many applications. High Power, High Current, High Voltage, Surge, and Current Sense are among the most popular.

CUSTOM CAPABILITIES

Ohmite's entire line of power resistors can be customized to your specific needs, including mounting options, constructions, and more. Several of our power resistors and their customization options are highlighted below.

The TGH series offers the following points of customization:

- Choice between two or four terminals
- Multiple resistor configurations in multiple values
- Custom dielectrics and internal constructions

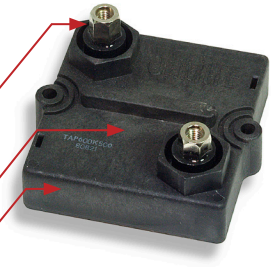


TGH Series

Their non-inductive design makes these resistors ideally suited for high-frequency and pulse-load applications. Available in 120- or 200-watt sizes, this resistor is designed for direct mounting onto a heatsink. For a complete thermal solution, combine with Ohmite's TGH-TP1 pre-cut, high performance thermal pads.

The TAP series offer the following points of customization:

- Terminal constructions for increased creepage
- Custom high and low value constructions
- Custom dielectrics and internal constructions

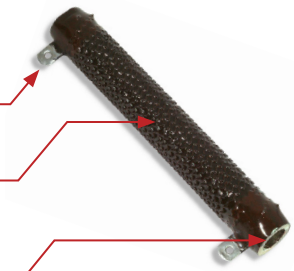


TAP Series Planar Resistors

Ohmite's TAP series dissipates 600, 800, 1000, or 2000 watts of power when used with a liquid or air-cooled heat sink system. The resistive element of the series is specially designed for low inductance and capacitance, providing stable performance in addition to high wattage and pulse loading capability. Use with Ohmite's TAP-TP1 pre-cut, high performance thermal pads for a complete thermal solution.

The 270/280 series offer the following points of customization:

- Terminal constructions including addition of wires and connectors
- Assembled in series parallel configurations for custom high wattage and load bank configurations
- Mounting brackets can be added



270/280 Series

Select 270 Type fixed resistors for applications requiring wattage ratings from 12 to 1000 watts. These resistors are equipped with lug terminals suitable for soldering or sturdy bolt connection. When secure mounting is required, the hollow core of these resistors permits fastening with spring-type brackets, thru bolts, or thru bolts with slotted-steel brackets.

The HS/89 series offers the following points of customization:

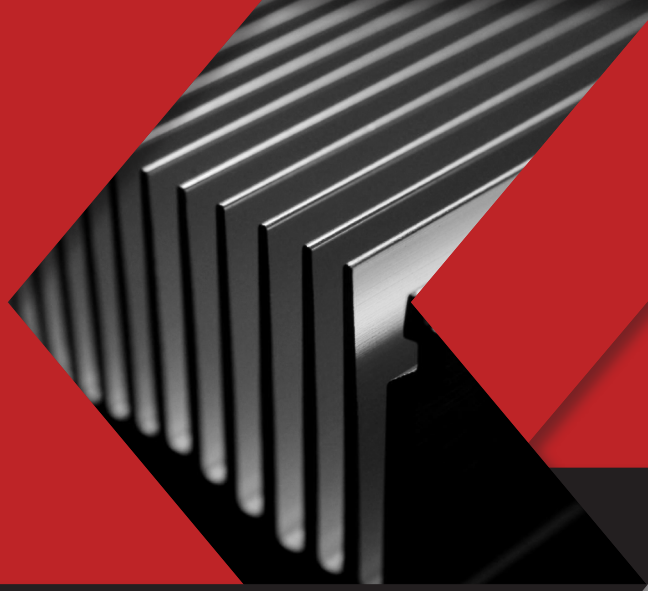
- Custom extrusion lengths and profiles
- Alternate anodized colors
- Addition of wire leads and connectors

HS/89 Series

The HS/89 Series is a high-performance axial heat-sinkable resistor. These molded-construction, aluminum-housed resistors are available in higher power ratings than standard axial resistors and are better suited to withstanding vibration, shock, and harsh environmental conditions. The HS/89 Series maintain high stability during operation and to permit both secure mounting to chassis surfaces and heat-sinking capabilities. Ohmite's HS series thermal pads are die-cut specifically to fit the HS/89 series of resistors.

HEATSINKS

Ohmite strives to be the number one provider of thermal solutions when high power is present in your application. We offer an array of heatsinks to meet the needs of not only power resistors, but of all active devices as well. Many of the heatsinks offered by Ohmite are fitted with a patented clip system, eliminating the use of screws and tools for installation. The goal of this innovative clipping system is to provide users with an easier, more streamlined assembly process. Our heatsinks include Aluminum Alloy 6063-T5 or equivalent materials and are ROHS compliant.

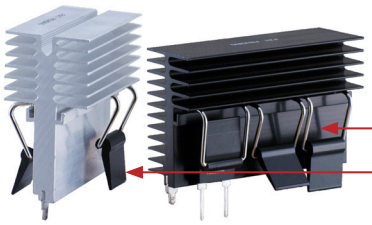


CUSTOM CAPABILITIES

Ohmite's entire line of heatsinks can be customized to your application's needs. Options include extrusion lengths, clip type, and more. Several of our heatsinks and their customization options are highlighted below.

CR Series

The CR series offers flexibility, high performance, and is comparable to popular Aavid MAX-clip heatsinks. The cam clip system for TO-247 and TO-264 devices is proprietary and provides tools or fixture free assembly. It is available in multiple extrusion lengths to support up to 3 devices and in black anodized or degreased finishes.

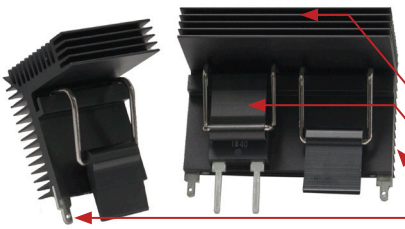


The CR series offers the following points of customization:

- Extrusion lengths
- Number and clip type

VR Series

If you are using popular IXYS CPC devices, I4 devices, or the Ohmite CS10 series, look no further than the VR series extruded heatsinks to complete your design. Each heatsink is designed with a cam clips system (Pat. Pending) for these popular device types. The VR series also accommodates TO-220 and TO-247 devices.

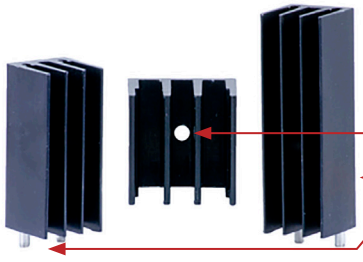


The VR series offers the following points of customization:

- Removal or addition of fins
- Number and clip type
- Extrusion lengths
- Mounting foot length or spacers

EX Series

The EX series of aluminum extruded heatsinks can accommodate TO-220, TO-247, and D34 packages. To achieve a thermal performance of 12.4°C/W, each EX heatsink contains threaded mounting screw holes for proper thermal connection. Natural convection performance is enhanced with black anodization.



The EX series offers the following points of customization:

- Addition, movement, or exclusion of fins
- Custom extrusion lengths
- Mounting foot length or spacers

EMI FILTERS

Regulations across the globe specify how much RF energy products can emit via radiated and conducted emissions standards. Additionally, conducted immunity (commercial) and susceptibility (military) standards specify how much RF energy products must tolerate without damage or malfunction. Ohmite offers multiple EMI filter series to accommodate each unique filter application. Ohmite filters bear the most relevant safety certifications including UL and CSA.

CUSTOM CAPABILITIES

Ohmite's entire line of EMI filters can be customized to your application's needs, with options like terminations and attenuation characteristics. Several of our EMI filters and their customization options are highlighted below.

The AF series offers the following points of customization:

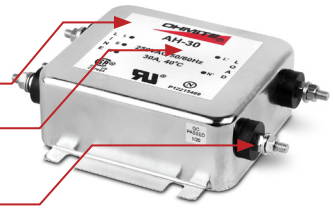
- Customer-specified terminations
- Custom attenuation characteristics with internal component changes
- Single and dual fuses; custom fuse ratings
- Screw or snap fittings

AF Series

Inlet filters/power entry modules are widely used for interference suppression purposes in computers, peripherals, and other hardware devices. The modules combine an IEC inlet with an integrated filter in a single unit. Ohmite power entry modules are offered in multiple combinations including power switches, fuses, and/or mounting variations.

The AH series offers the following points of customization:

- Dual stage and low frequency options
- Custom attenuation characteristics with internal component changes
- Customer-specified terminations

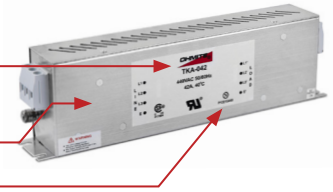


AH Series

This series range of dual stage filters give superior performance when used in applications with low impedance loads. The AH series controls continuous and intermittent interference noise and where high levels of mains borne interference are present. The chassis mount design of the AH series is available from 1A to 50A ratings in six different case sizes depending on current rating.

The TK series offers the following points of customization:

- Multiple sizes and current handling specifications
- Multiple voltage options
- Custom attenuation characteristics with internal component changes

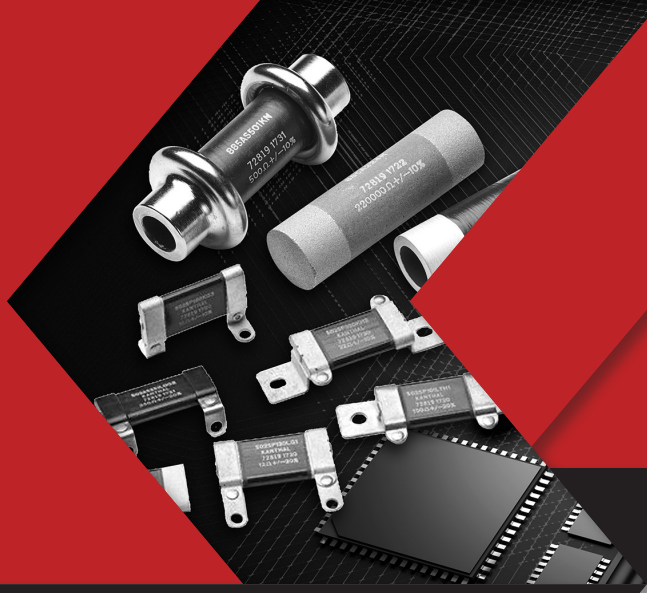


TK Series

The TK series range of three phase filters with book shelf design is designed for motor drive applications requiring minimum space and convenient installation with superior performance at significant interference levels. The TK series can cover a wide range of three phase applications offering a maximum current range from 7A to 150A. This series doesn't stop there and also offers three voltage ratings-440,520, and 600 VAC.

CERAMIC RESISTORS

Ceramic composition resistors are offered in multiple material types in ranges from, 1/2 watt to a 1000 watts in a single component. Ceramic resistors are compatible with a wide array of end products and are chemically inert and thermally stable. This assures all users that this product line is safe and durable. You can find ceramic resistors in a wide array of applications including rail charging stations, switchgear, and motor controls.



CUSTOM CAPABILITIES

Ohmite's entire line of ceramic resistors can be customized to your application's needs, including options like geometry and coating. Several of our ceramic resistors and their customization options are highlighted below.

500 Series

500 Series Non-Inductive Bulk Ceramic Slab Resistors provide high power and energy dissipation in a compact size. The 500 Series design enables the designer to minimize resistor package size and cost while providing unequaled performance and reliability. The slim, compact resistors offer a number of termination options allowing easy configuration for specific requirements.

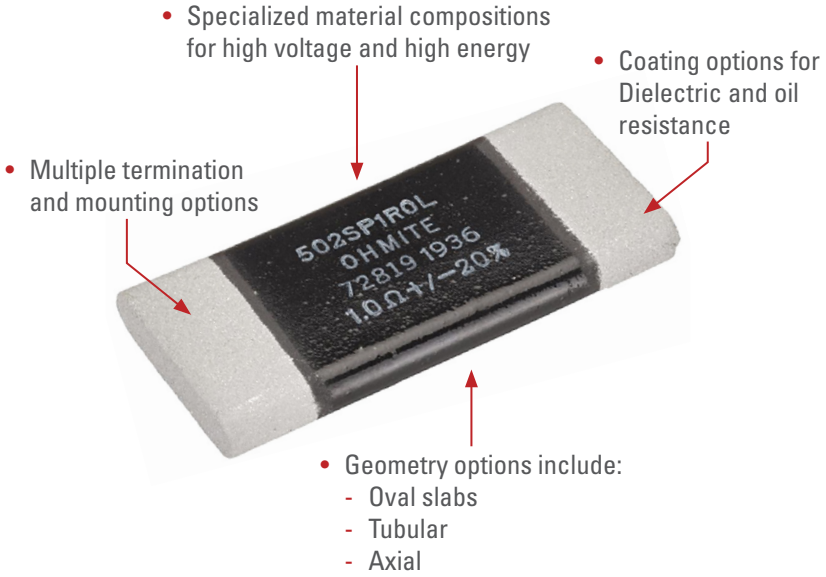
800-1000 Series

The 800 and 1000 tubular ceramic resistor series provide excellent performance for high peak power or high-energy pulses. They are inherently non-inductive and are available in three distinctly different ceramic materials to meet a range of requirements.

100-200 Series

As alternatives to hard-to-find carbon composition resistors, non-inductive high power axial-leaded resistors can be used as drop-in replacements for 1 and 2-watt sizes. Much larger sizes, up to 70 watts in a single component, are available for new or re-designs where an array of smaller resistors have been previously required.

Ceramic resistor series offer the following points of customization:



LOAD BANKS

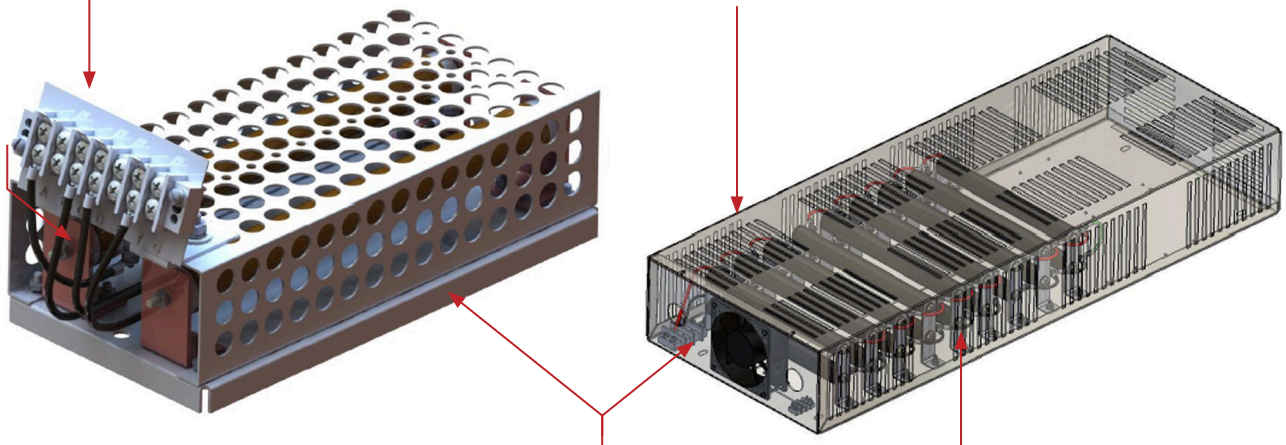
When conditions demand top-notch performance, Ohmite resistor load banks are the proven, reliable choice. Commonly used for dynamic braking on transit and other applications where high current handling and wattage are required, Ohmite's unique designs allow for more wattage in smaller packages.

CUSTOM CAPABILITIES

With an entire portfolio of resistor technologies available, we can also create a custom load bank solution to meet a project's specific circumstances.

The following points of customization are available for load banks:

- Custom termination blocks
- Fans and thermal cutoff switches
- Enclosures to fit each application
- Specific resistor arrays designed for each application



Custom load bank assemblies provide the flexibility of high energy and/or high power dissipation while saving space, time, and money. Ohmite's systems are designed to minimize footprint while creating an electrically isolated and integrated solution. These innovations have allowed us to support rugged designs still in operation decades later. Load bank assemblies can be comprised of many of our wirewound and ceramic components.

Part Series	Construction
270 Series	Wire wound (coated)
280 Series	Wire wound (coated)
500 Series	Ceramic (tubes/slabs)
800 Series	Ceramic (tubes/slabs)
1000 Series	Ceramic (tubes/slabs)
WLRH Series	Wire wound (open element)
WLRD6G Series	Wire wound (open element)

POWER RESISTORS | CERAMIC RESISTORS | EMI FILTERS | HEATSINKS | LOAD BANKS

OHMITE®

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