BIG ADVANCES IN SMALL SMD PACKAGES



ISABELLENHÜTTE

OUR SURFACE-MOUNT DEVICE (SMD) CAN IMPROVE THE PERFORMANCE, DURABILITY, AND COST EFFICIENCY OF WHATEVER APPLICATION YOU NEED



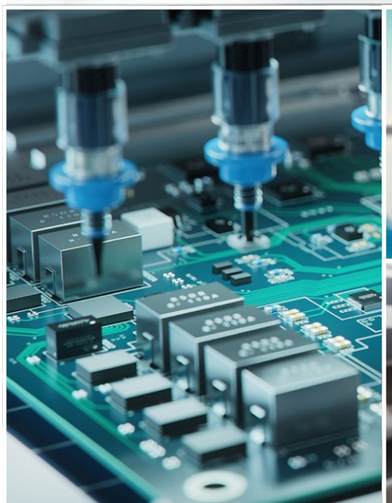
A full range of low-ohmic options lets you put big power into smaller footprints for high-precision applications including:

- Automotive
- Electric Vehicles
- E-scooters/e-bikes
- DC Motors and Controllers
- Drones
- IGBT / Power Modules
- DC-to-DC Converters
- Whole-house Batteries
- White Goods
- Control Units
- Sensors
- Displays
- Heating Pumps
- Power Supplies
- Many other applications

EXPECT MORE...

- More responsive service
- More availability
- More options
- More flexibility
- More ways to collaborate









SURFACE MOUNTING SAVES TIME AND SPACE.

Robust low-ohmic components make a real difference

Every day, we work with the top names in automotive, aerospace, medical, and other industrial sectors, where we serve as a responsive and active partner in next-generation shunt-based solutions.

The unique, high-performance products we provide feature:

- Low ohmic resistance for high-current applications
- Low TCR
- High-pulse power ratings
- Long-term stability
- Resistance alloys matched to copper to reduce thermoelectric voltage to virtually zero

Easy to upgrade from current components

The Product Finder feature on our website lets you quickly plug in a current part number from any manufacturer and instantly see suitable—performance-enhanced—parts from our extensive catalog.

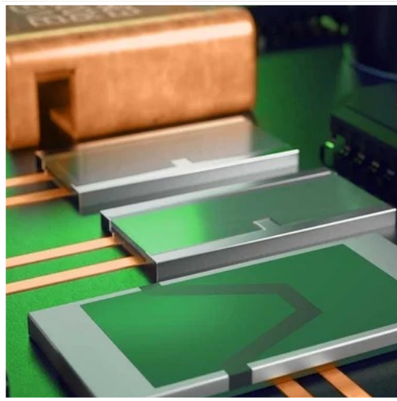
Or... you can enter the specific performance characteristics required for your application and get a range of suitable SMD solutions to consider.

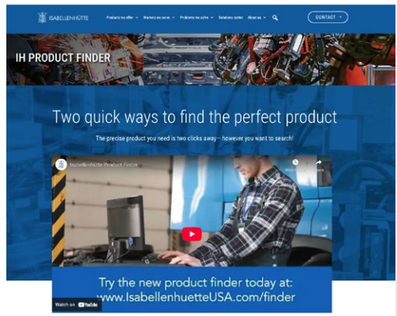
Easy to order

Our full line of SMD resistors are available directly from Isabellenhütte—backed by the kind of service, advice, and supply chain confidence our customers expect.

If your organization has relationships with distributors like Digikey or MIL-SPEC/QPD supply sites like DLA, you can also find our products there as well.







SCAN HERE to find your product

HOW CAN WE HELP YOU SUCCEED?

Start with better alloys

Our legacy of metallurgical excellence is built on a 500-year history of creating unique alloys—and includes pioneering the future of precision measurement and power resistors alongside our customers.

The ability to precisely callibrate resistance and other characteristics gives us great flexibility in product design, cost, and our reputation for matching products to customers.



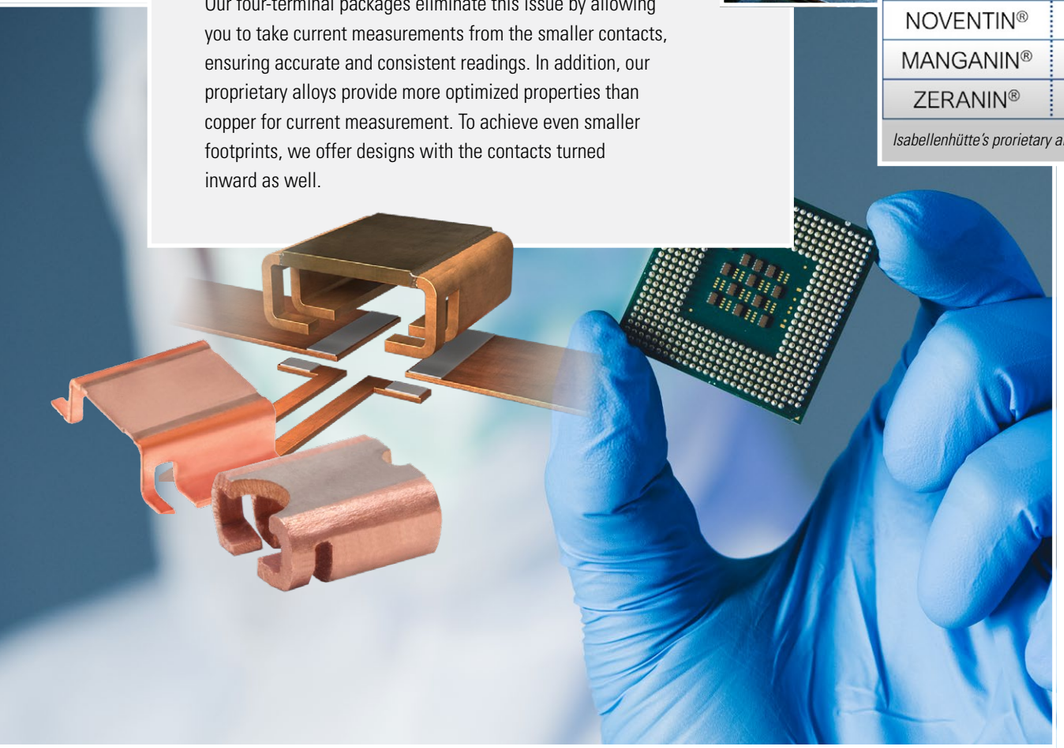
Our four-terminal resistors help enhance accuracy–even for low-ohmic values

Some shunt designs include large copper contacts, which can cause distortion in current measurement—especially when working with low-ohmic values (i.e. Kelvin resistor effect).

Our four-terminal packages eliminate this issue by allowing you to take current measurements from the smaller contacts, ensuring accurate and consistent readings. In addition, our proprietary alloys provide more optimized properties than copper for current measurement. To achieve even smaller footprints, we offer designs with the contacts turned inward as well.

Alloy	Resistivity ρ
ISAOHM®	132 µΩcm
NOVENTIN®	90 µΩcm
MANGANIN®	43 µΩcm
ZERANIN®	29 µΩcm

Isabellenhütte's prorietary alloys

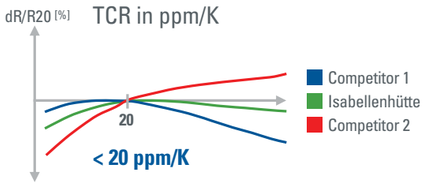


Why delivering low TCR matters

Temperature Coefficient of Resistance ("TCR") is used as a measure of the stability of the resistance value with respect to changes in temperature.

Isabellenhütte metal foil resistors show a low TCR of less than 20 ppm per kelvin, which means high precision with minimal deviation of the resistance value considering temperature changes, for applications requiring between 5 micro-ohms and 4.7 ohms.

For applications: 5 mOhm - 4.7 Ohm



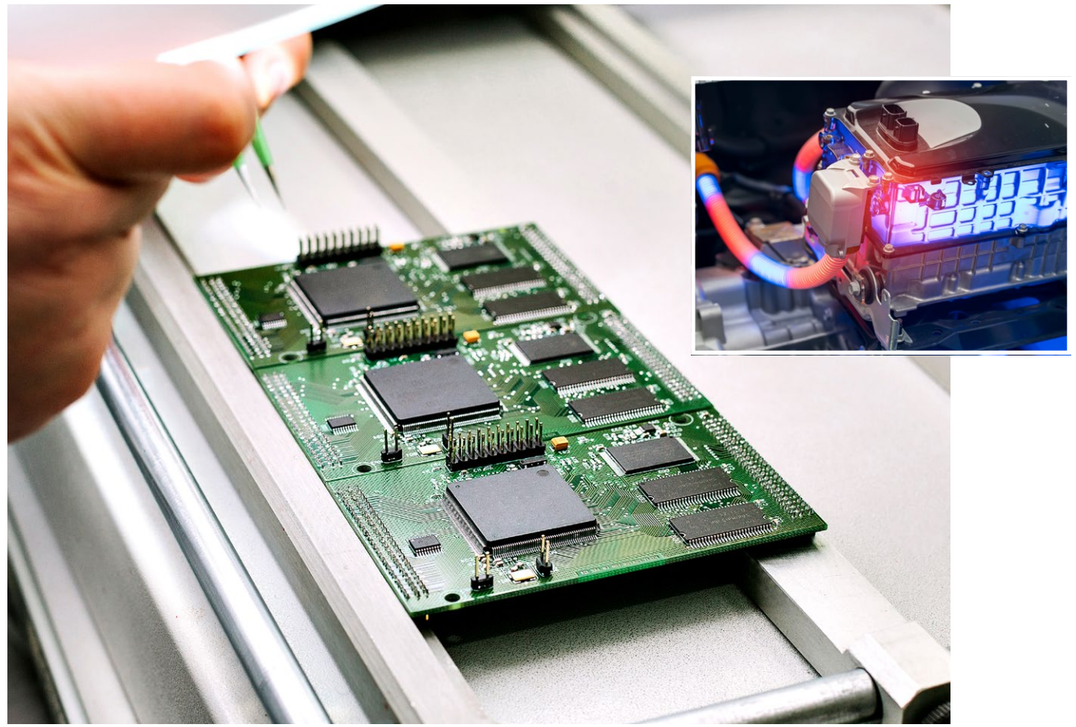
Expect more over the long haul

Our surface-mount products also feature low-drift metrics–even over long terms of use. We achieve this through an artificial aging process with the help of a tempering oven. This assures that the resistance material is stabilized in its metallographic structure, minimizing the effect of a lower resistance value over time.

And like our products, you can "expect more" from our whole team, in terms of service and support when you partner with Isabellenhütte.

Resistance drift after 2,000 h





ISA-WELD SERIES

Series	Size	Parts per reel	Features	Resistance value [mΩ] (0.1 – 1 – 10)	Rated power at 70°C
BVE	5930	2,000		0.1 – 3	4-15 W
BVZ	4026	1,400	Performance Features: R_{thi} ■■■, TCR ■■, Power ■■■■	0.5 – 3	5-13 W
BVS	3920	3,000		0.1 – 5	5-12 W
BVT	2512	5,000		0.2 – 6.8	2-10 W
BVR	4026	1,400		0.2 – 3	5-12 W
BVB	2725	1,400	Performance Features: R_{thi} ■■■■, TCR ■■■■, Power ■■■	0.2 – 5	3-12 W
BVN	1216	3,000		0.3 – 3	3-10 W
WAF	1213	5,000		0.487 – 1	6-7 W
WAK	1206	12,500	Performance Features: R_{thi} ■■, TCR ■■, Power ■■■■	0.5 – 1	6 W
WAT	2512	5,000		0.2 – 0.5	10 W



Resistor for space

If your project calls for MIL-SPEC or aerospace standards, we offer a range of qualified products for these applications that meet international standards.

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ISA-PLAN SERIES

Series	Size	Parts per reel	Features	Resistance value [mΩ] (1 – 10 – 100 – 1 000 – 5 000)	Rated power at 70°C
SMK	1206	12,500		8 – 500	1 W
SMP	2010	10,000	Performance Features: R_{thi} ■■■■■, TCR ■■■, Power ■■■■■	5 – 1000	3 W
SMS	2512	5,000		5 – 1000	5 W
SMT	2817	5,000		4 – 4700	5-7 W
VMI	0805	15,000		10 – 100	0.65-1.1 W
VMK	1206	12,500		10 – 470	1.5 W
VMP	2010	12,500	Performance Features: R_{thi} ■■■■, TCR ■■■■■, Power ■■■■	5 – 1000	3 W
VMS	2512	9,000		5 – 1000	4 W
GMP	2010	12,500		10 – 80	1 W
CMK	1206	12,500		10 – 100	1.25 W
CMP	2010	12,500	Performance Features: R_{thi} ■■■■, TCR ■■, Power ■■■	10 – 500	2 W
CMS	2512	9,000		10 – 500	2.5 W
CLK	0612	10,000		3 – 10	3 W
CLP	1020	10,000		3 – 10	5 W
FMK	1206	12,500	Performance Features: R_{thi} ■■■■■, TCR ■■■, Power ■■■■■	2 – 6	1-3.5 W
FMP	2010	12,500		2 – 6	2-3.5 W



EASY TO ORDER

PHONE

(508) 673 2900

EMAIL

salesusa@isabellenhuette.com

NEED SOMETHING ELSE?
WE CAN CREATE IT!

Our reputation as a collaborator makes Isabellenhütte a frequent partner to EMS and OEMs who have requirements that are not met by off-the-shelf resistors and components—or who wish to incorporate additional elements into products through our unique metallurgical and manufacturing expertise.

Please feel free to contact us about any specific needs you may have.
We are always happy to speak with innovative engineers to help solve new problems.

EXPECT MORE.

We believe that imagination and innovation are the fuel for forward progress. We are intensely focused on our customers and their challenges—always looking for new possibilities and ways to help them win.The crucial factor for our success as a technology leader is the concentration of a wide range of production steps and proprietary technologies in-house. Our vertically integrated value chain—and continuous improvement of processes—are the basis of our outstanding technical and innovative capability.

ISABELLENHÜTTE

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