

BIG ADVANCES IN SMALL SMD PACKAGES



ISABELLENHÜTTE

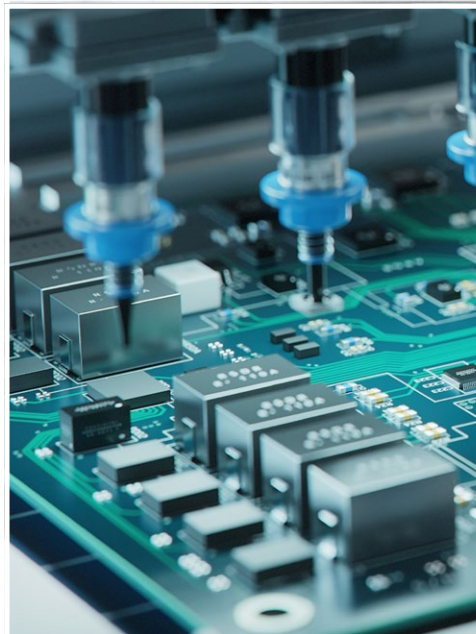
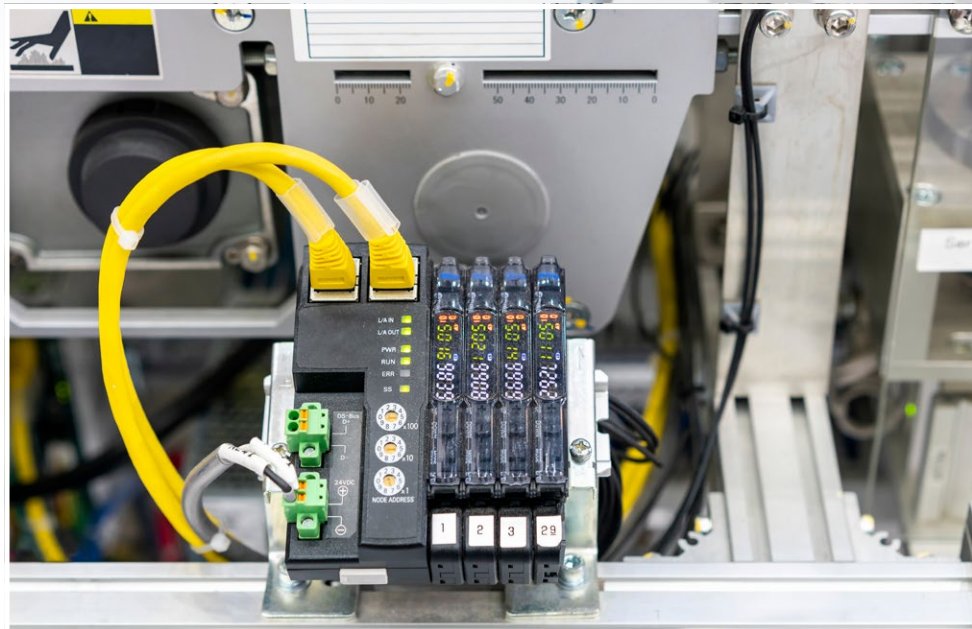
OUR SURFACE-MOUNT DEVICE (SMD) CAN IMPROVE THE PERFORMANCE, DURABILITY, AND COST EFFICIENCY OF WHATEVER APPLICATION YOU NEED

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

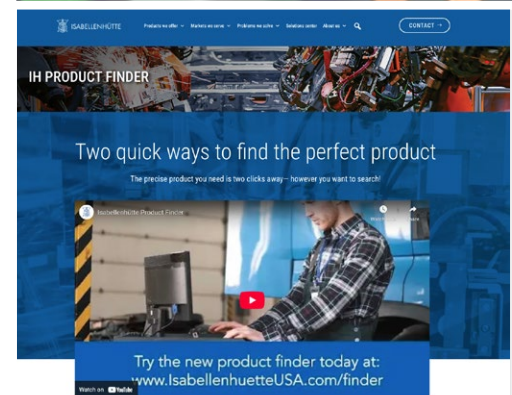
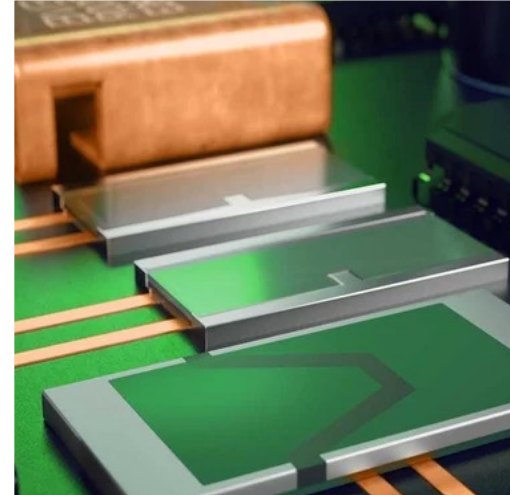
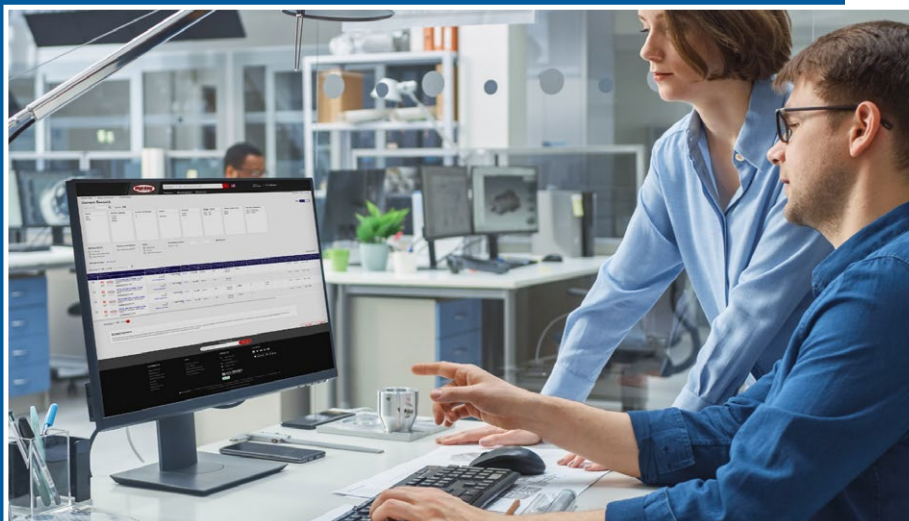
The Product Finder feature on our website lets you quickly plug in a current part number from any manufacturer and instantly see suitable—performance-enhanced—parts from our extensive catalog.

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

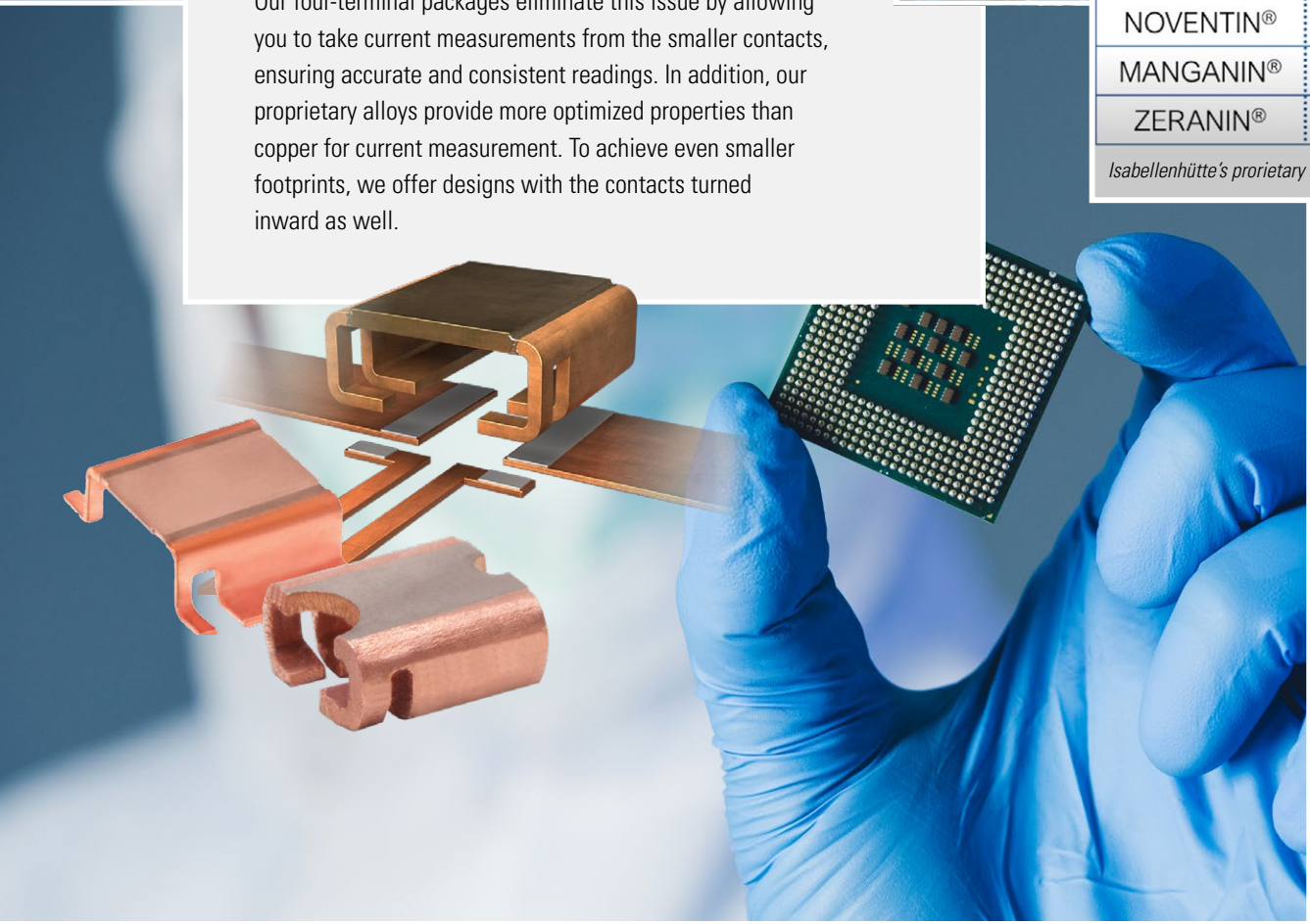
Our legacy of metallurgical excellence is built on a 500-year history of creating unique alloys—and includes pioneering the future of precision measurement and power resistors alongside our customers. The ability to precisely calibrate resistance and other characteristics gives us great flexibility in 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 $\mu\Omega\text{cm}$
NOVENTIN®	90 $\mu\Omega\text{cm}$
MANGANIN®	43 $\mu\Omega\text{cm}$
ZERANIN®	29 $\mu\Omega\text{cm}$
<i>Isabellenhütte's proprietary alloys</i>	



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.

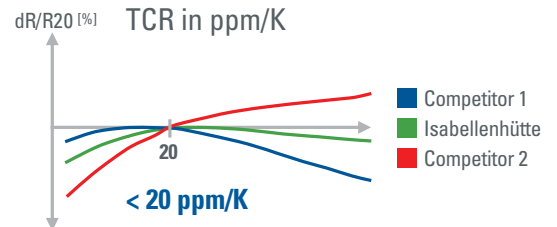
Isabellenhütte metal foil resistors show a low TCR of less than 20 ppm per kelvin, which means high precision with minimal deviation of the resistance value considering temperature changes, for applications requiring between 5 micro-ohms and 4.7 ohms.

Expect more over the long haul

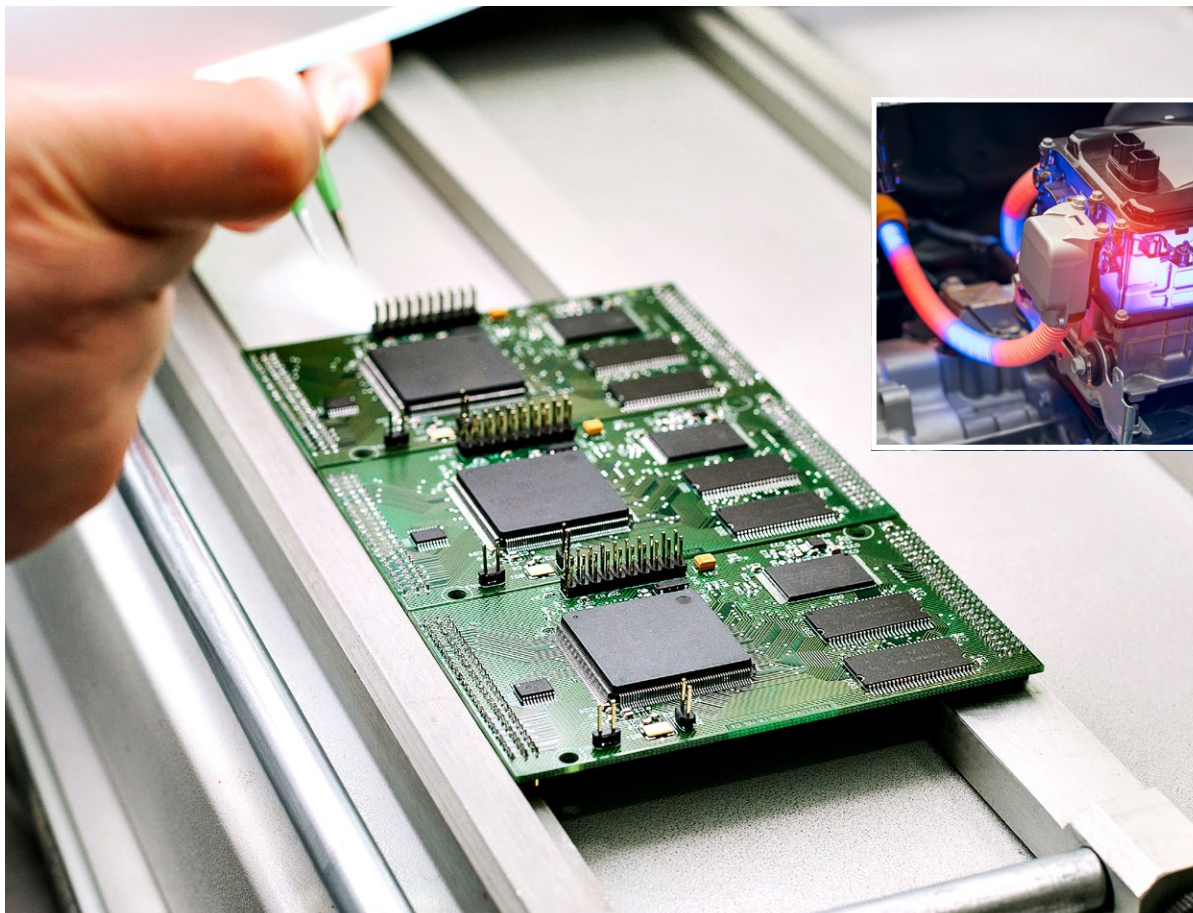
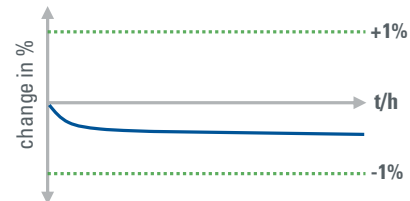
Our surface-mount products also feature low-drift metrics—even over long terms of use. We achieve this through an artificial aging process with the help of a tempering oven. This assures that the resistance material is stabilized in its metallographic structure, minimizing the effect of a lower resistance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




















For applications: 5 mOhm - 4.7 Ohm



Resistance drift after 2,000 h



ISA-WELD SERIES

Series	Size	Parts per reel	Features	Resistance value [mΩ]			Rated power at 70°C
				0.1	1	10	
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	Performance Features R _{thi}  TCR  Power 	0.2	3	5-12 W
BVB		2725	1,400		0.2	5	3-12 W
BVN		1216	3,000		0.3	3	3-10 W
WAF		1213	5,000	Performance Features R _{thi}  TCR  Power 	0.487	1	6-7 W
WAK		1206	12,500		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.



ISA-PLAN SERIES

Series	Size	Parts per reel	Features	Resistance value [mΩ]					Rated power at 70°C
				1	10	100	1 000	5 000	
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	Performance Features R _{thi}  TCR  Power 		10	470			1.5 W
VMP	 2010	12,500		5		1000			3 W
VMS	 2512	9,000		5		1000			4 W
GMP	 2010	12,500			10	80			1 W
CMK	 1206	12,500	Performance Features R _{thi}  TCR  Power 		10	100			1.25 W
CMP	 2010	12,500			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@isabellenhuetten.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.



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