

RESI is

The Whole Industry Chain Supplier of
High- End Components and Smart Shunt

From raw materials to core equipment, form R&D and sales of components to testing capability, all are finished inside of the house.

Raw Material Development

- Alloy
- Thick-Film Paste

Core Equipment

- Vacuum Electron Beam Equipment
- Automated Test Equipment
- Precision Measurement & Calibration Equipment

Resistor R&D and Sales

- 2 Smart Resistor Plants
- 20+Sales engineers

Testing Capability

- AEC-Q200 Laboratory
- ILAC/CNAS Lab



ABOUT RESI

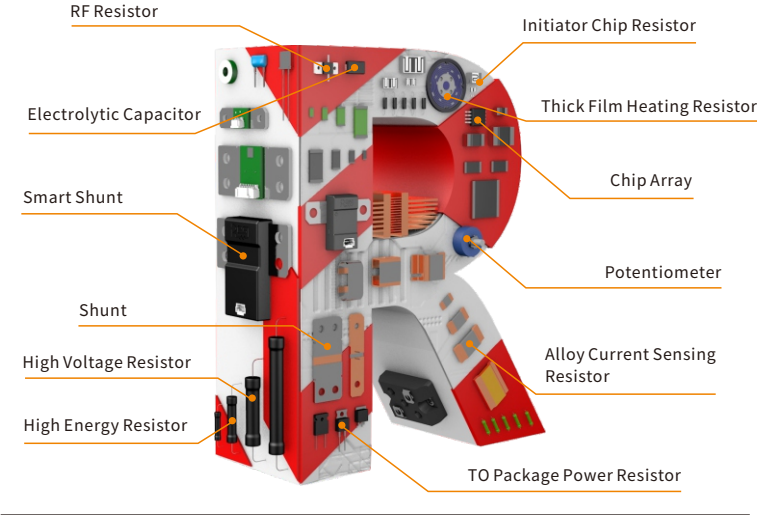
C&B Electronics Group was established in 2006, engaged in R&D and manufacturing of high-end resistors, high precision smart shunt, high precision alloy and electron beam welding equipment.

C&B Electronics Group has four business subsidiaries in Mainland China and one business subsidiary in Hong Kong. C&B Eureka Innovations, located in Hong Kong, represents RESI electronic components brand globally.

RESI has agile manufacturing expertise in alloy current sensing resistors, shunts, high-voltage resistors, high-energy resistors, high-power resistors, ignition resistors, capacitors and smart shunt. RESI has client-centric excellence with dependable logistics, competitively priced offerings, and delivers exceptional value to its customers with world-class support.

RESI serves a global market, with major industries, including Automotive and Transportation Electronics, Telecommunications, Robotics, Industrial Automation, Energy Storage and Healthcare.

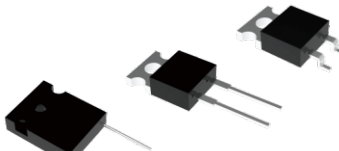
Qualification & Certificate



The high voltage/high power/high energy resistors utilize high precision thick film technology, and electron paste independently developed by RESI, which has excellent short-time overload capability, high voltage withstand capability, TCR performance.The pattern of resistive element is of high precision which can reach 0.1mm, ensuring tight initial tolerance as well as excellent repeatability and consistency.This series of products uses independently controlled special coating technology, combined with self-developed materials, significantly enhancing insulation performance and moisture resistance.

High Power

Series	TPAN / TPAL
Size	T0220 / T0263 / T0247
Resistance	0.5Ω~10KΩ
Rated Power	35W~100W
Tolerance	±0.5%
TCR	±100ppm/°C



High Energy

Series	APLR
Resistance	20Ω~10KΩ
Rated Energy	1000J
Pulse Voltage	400V~5000V
Rated Power	6W
Tolerance	±5.0% / ±10.0%
TCR	±200ppm/°C



High Voltage

Series	HVLR / HVHR
Resistance	1KΩ~10GΩ
Rated Power	0.7W~15W
Tolerance	±0.1%~±10.0%
Operating Voltage	2.5KV~48KV

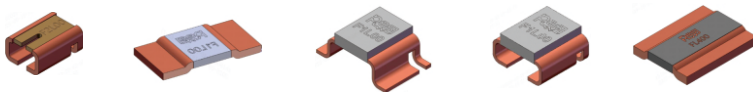


Current sensing

Metal alloy resistor and shunt is developed with "Trimming Free" technology, which allows resistor reach to ±0.5% tolerance without trimming. This not only prevents the rated current loss but also avoids the hotspot issue, significantly enhancing product reliability. Additionally, improved welding quality significantly reduces EMF of resistor, thereby improving its long-term stability.

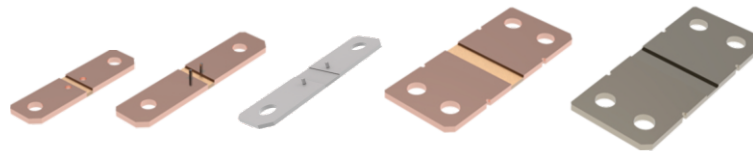
Pure Alloy

Series	SEWF / SEWK / PEWF / PEWK / PEWM / EBWK / EBWM
Size	1216 / 2512 / 3920 / 3951 / 5930 / 2726 / 4026
Resistance	0.1mΩ~5mΩ
Working	22A~387A
TCR	±25ppm/°C~±200ppm/°C
Rated Power	2.5W~15W



Shunt

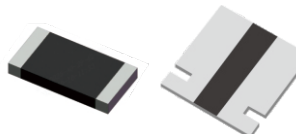
Series	ARCS
Size	5218 / 6918 / 7727 / 7736 / 8420 / 8436 / 8518 / 8536
Resistance	25μΩ / 50μΩ / 100μΩ / 200μΩ / 250μΩ
Rated Current	500A~1410A
TCR	±50ppm/°C~±150ppm/°C
Output Voltage	35mV~75mV
Structure	Pin / M3 Hole / Standard
Surface Treatment	Non-Plating / Overall Nickel Plating / Partial Nickel Plating Partial Nickel-Tin Plating



Molded

The molded precision current sensing resistor is based on electron beam welding technology. The product can achieve tolerance up to ±0.1%. The resistance range covers 2mΩ-200mΩ, and the TCR can be as low as ±15ppm/°C. The product with 2512 and 3637 size has reached mass production.

Series	PCSR / PCSK
Size	2512 / 3637
Resistance	2mΩ~200mΩ
Tolerance	±0.1%
TCR	±15ppm/°C~±25ppm/°C
Rated Power	1W~2W



Smart Shunt

In a BMS system, it is necessary to measure the total current of the battery precisely. RESI CB series smart shunt is an automotive-grade current sensing module that can measure bidirectional DC current. It offers high accuracy, low power consumption, a wide operating temperature range, excellent response speed, high temperature stability, and interference resistance.

Shunt Based

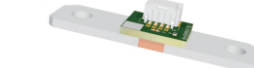
Series	CB350 / CB600 / CB1000
Current Measurement Range	-8000A~+20000A
• Continuous Operating Range	-350A~+1000A
• Measurement Accuracy	±0.1% / ±0.5% (MAX)
• Resolution	1mA / 10mA
Temperature Measurement Range	-50°C~+150°C
• Measurement Error	±3°C
• Resolution	0.1°C
Communication Protocol	CAN2.0 A/B
• Selectable Data Format	
• Configurable CAN ID	
• Configurable CAN Speed	
• With or without terminal resistor	
Supply Voltage	6VDC~18VDC
Operation Temperature Range	-40°C~+105°C
Power Consumption	≤216 / ≤384mW @12VDC
Galvanic Isolation	3000VAC



Automotive current sensors with functional safety have passed ISO 26262:2018;ASILC, certified by UL.

PCB+Shunt

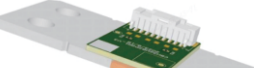
Series	PCBS6918/8518/8436/8536
Shunt	
• Resistance:25μΩ~100μΩ	25μΩ~100μΩ
• Tolerance:5.0%	5.0%
• Persistent Current: 350A~1000A	350A~1000A
• Temperature Range: -55°C~+175°C	-55°C~+175°C
• Thermal EMF: <3μV/°C	<3μV/°C
• Inductance: <5nH	<5nH



NTC	
• Resistance: 10KΩ	10KΩ
• Tolerance:±1%	±1%
• TCR:3435ppm/K	3435ppm/K
• Temperature Range:-50°C~+150°C	-50°C~+150°C



CAP	
• Capacitance:0.1nF	0.1nF
• Tolerance:±10%	±10%
• Rated Voltage: 50VDC	50VDC
• Temperature Range:-50°C~+125°C	-50°C~+125°C



Market Segments/Applications

Automotive



Telecommunications



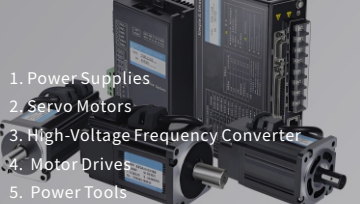
Robotics



Healthcare



Industrial Automation



Energy Storage



Transportation

