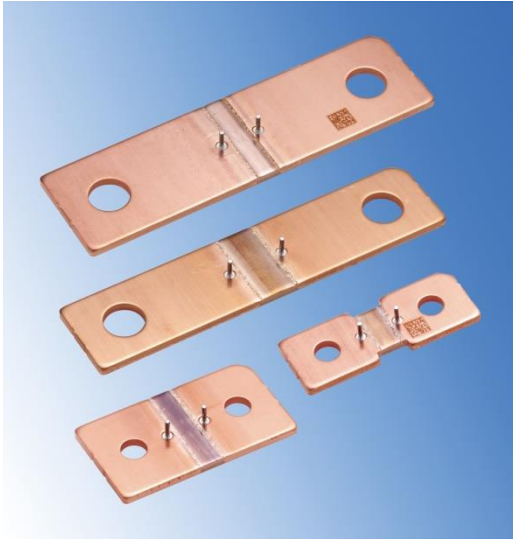


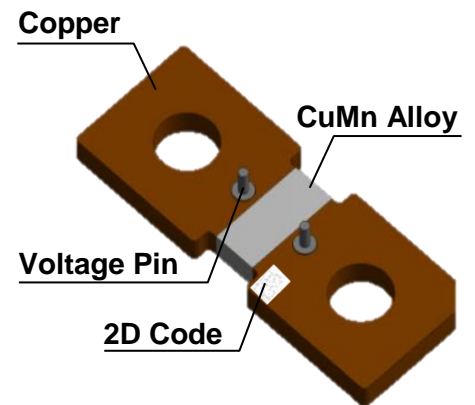
# 1000 A – Large Current Shunt



## HS-Series



The new HS series from KOA is ideal for sensing currents up to 1000 A. Constructed using a solid metal alloy resistance element with copper terminations the device provides superior corrosion and heat resistance and has excellent pulse resistance.



### Product Features

- Large current detection by ultra-low resistance of **50  $\mu\Omega$**
- High accuracy sensing with dedicated detection terminals
- Bus bar and cable can be screwed on
- High reliability by robust construction
- Small size (40 mm x 15 mm) and high performance
- 2D code marking for individual resistance information is possible
- Custom specific shapes on request
- EU-RoHS compliant
- AEC-Q200 qualified

**NEW**

### Ratings

Type	Size L x W x t (mm)	Resistance Value & Tolerance	Rated Power (Rated Current)	T.C.R.	Rated Terminal Part Temperature
<b>HSAN2P4022M5</b>	40 x 22 x 2	<b>50 <math>\mu\Omega</math> <math>\pm</math> 5 %</b>	50 W (1000 A)	75 $\pm$ 50 ppm/K*	+105 °C
<b>HSAN2P8022M8</b>	80 x 22 x 2				
<b>HSAN2P4015M5</b>	40 x 15 x 2	100 $\mu\Omega$ $\pm$ 5 %	36 W (600 A)	50 $\pm$ 25 ppm/K**	
<b>HSBN2P8018M8</b>	80 x 18 x 2				
<b>HSAN2P4015M5</b>	40 x 15 x 1	200 $\mu\Omega$ $\pm$ 5 %	18 W (300 A)		

\* +25 / +125 °C    \*\* +25 / +100 °C

Operating Temperature Range: -65 °C ~ +175 °C

For more information, please contact:  
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# 1000 A – Large Current Shunt



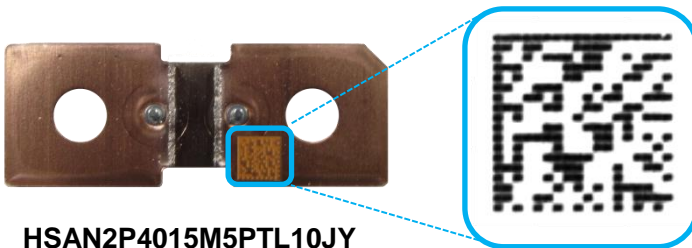
## Special Feature: 2D - Data Matrix Code (optional – 25 digits max.)

### Content Examples

- Resistance value
- Customer part number
- Part name
- Lot number
- TCR

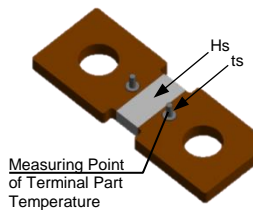
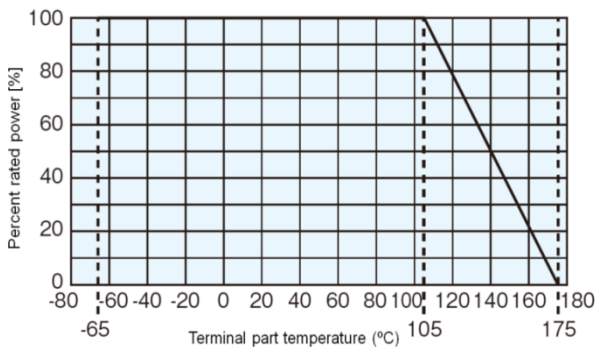
## Application Examples

- Automotive and Industrial devices
- EV / HEV
- Battery Monitoring
- DC-DC Converters
- Home Energy Management
- Building Energy Management



The actual resistance value of each individual part can be displayed in the 2D data matrix code. Measuring accuracy 0.01  $\mu\Omega$ .

## Derating Curve



## Thermal Resistance

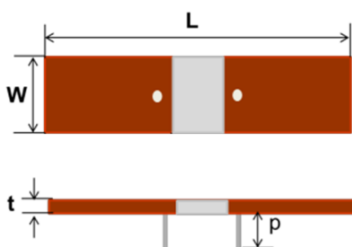
Type	Resistance Value	Rth
HSAN2P4022	50 $\mu\Omega$	0.57 K/W
HSAN2P8022		0.51 K/W
HSAN2P4015	100 $\mu\Omega$	1.2 K/W
HSDN2P8018		1.2 K/W
HSAN2P4015	200 $\mu\Omega$	2.3 K/W

$$R_{th} = (H_s - t_s) / \text{Power}$$

## Size Capability

Besides the basic types shown on the reverse, also other custom specific shapes are available upon request. Below are the outlines for the HS-series.

If bending or other dimensions are required, please refer to KOAs “Shunt on Busbar”.



Type	Resistance Value	L	W	t	P
HS	50 $\mu\Omega$	40 ~ 80	18 ~ 36	2	4 or 10
	100 $\mu\Omega$	35 ~ 80	15 ~ 18		
	200 $\mu\Omega$				

Screwed hole ( $\varnothing$ 3~8.3mm)  
Voltage pin ( $\varnothing$ 1mm)

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