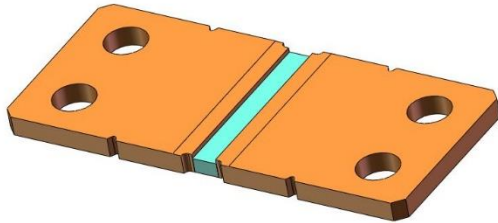


MSR series



■ Features

- Up to 40W Permanent power
- High pulse power rating
- Max. fastening torque 10 Nm
- Excellent long-term stability
- RoHs compliant and halogen free
- AEC-Q200 qualification

■ Application

- Current sensor for EBM (Electronic Battery Management) in motorcars, trucks, forklifts, hybrid and electric vehicles
- Current sensing in bus bars
- Current sensing in welding equipments

■ Technical data

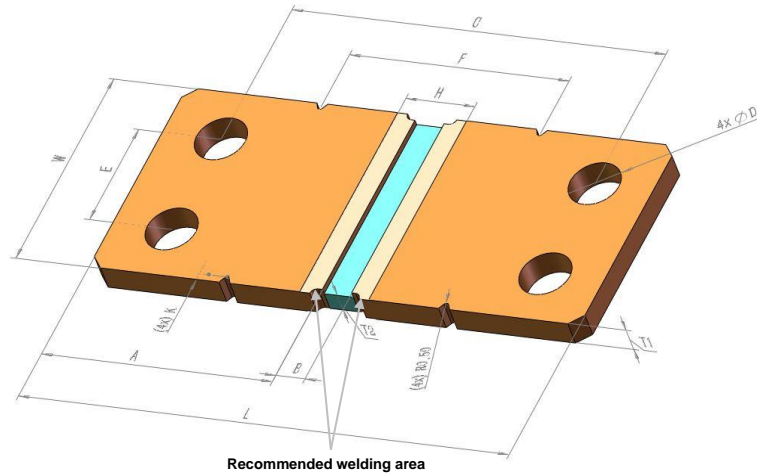
Item	Unit	Parameter
Resistance value	mΩ	0.02/0.025/0.05
Material	/	Manganin
Tolerance	%	5
Temperature coefficient (20~60°C)	ppm/K	50
Applicable temperature range	°C	-55~+170
Rated power (P ₁₄₀)	W	40
Inductance	nH	<3
Thermal EMF	uV/K	0.6
Stability (Nominal load) deviation after 2,000 h T _k = Terminal temperature	%	<0.5 (T _k =110°C) <1 (T _k =140°C)

■ Part Number Explanation

MSR	8436	L025	J	U	B
Product Type	Size	Resistance Value	Tolerance	Plating	Packing
MSR	8436	L020=0.020mΩ L025=0.025mΩ L050=0.050mΩ	J=±5%	P=Plated terminals U=Un-Plated terminals	B=Bulk T=Tray

Standard Electrical Specifications

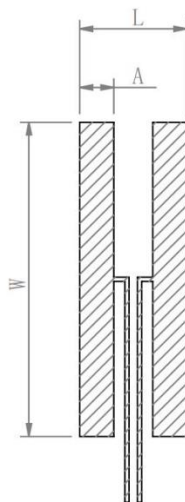
Type	Part Number	Rated Power P_{140}/W	TCR ppm/°C	Resistance /mΩ	Tolerance /%	Material	Applicable temperature range /°C
8436	MSR8436L020JUB	40	50	0.020	5	Manganin	-55~170
	MSR8436L025JUB	40	50	0.025	5	Manganin	
	MSR8436L050JUB	40	50	0.050	5	Manganin	



Type Dimension

Unit: mm

Type	A	B	C	D	E	F
MSR8436L020JUB	39.5 ± 0.3	5 ± 0.2	64 ± 0.2	8.3 ± 0.1	18 ± 0.15	37.6 ± 0.2
MSR8436L025JUB	39 ± 0.3	6 ± 0.2	64 ± 0.2	8.3 ± 0.1	18 ± 0.15	37.6 ± 0.2
MSR8436L050JUB	36 ± 0.3	12 ± 0.2	64 ± 0.2	8.3 ± 0.1	18 ± 0.15	37.6 ± 0.2
/	H	W	L	T1	T2	K
MSR8436L020JUB	12 ± 0.2	36 ± 0.2	84 ± 0.2	4 ± 0.1	3 ± 0.2	1.2 ± 0.1
MSR8436L025JUB	13 ± 0.2	36 ± 0.2	84 ± 0.2	4 ± 0.1	3 ± 0.2	1.2 ± 0.1
MSR8436L050JUB	19 ± 0.2	36 ± 0.2	84 ± 0.2	4 ± 0.1	3 ± 0.2	1.2 ± 0.1

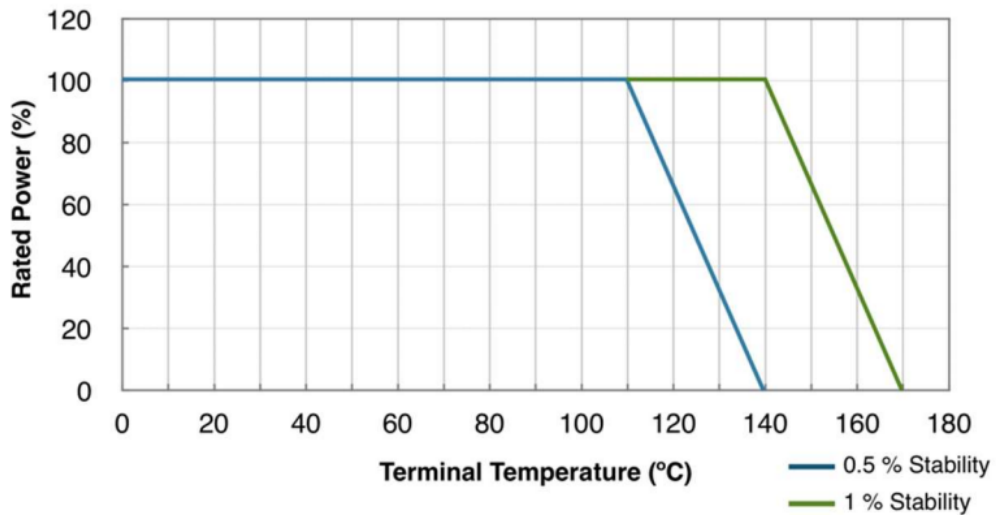


■ PCB-layout proposal

Unit: mm

Type	W	L	A
MSR8436L020JUB	37	12	4
MSR8436L025JUB	37	13	4
MSR8436L050JUB	37	19	4

■ Power Derating Curve



■ Packaging Options

Packing method	Bulk	Tray
Specification	Ziplock bag packing, each ziplock bag prevents one product and desiccant	10 products per tray

■ Storage Requirement

Temperature: 5~30°C, Humidity: 25%RH~60%RH

The product should be protected from direct sunlight

Sealed plastic bags with desiccant shall be used to reduce the oxidation of the termination and shall only be opened prior to use

The product shall not be stored in areas where harmful gases containing sulfur or chlorine are present

Wear gloves when installing and handling the product to avoid surface oxidation

When the product is finally discarded, it can be treated as general electronic waste, and raw material compositions of CSR can be referred to MSDS