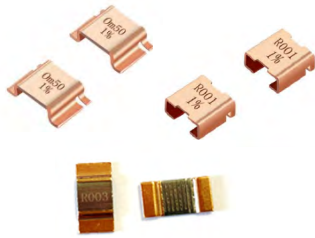




Eaton CSRs provide reliable and cost-effective current sensing in electronic applications



Eaton's metal plate, metal film, and metal shunt CSRs provide high-accuracy current sensing with low inductance and noise.

Product description

Eaton's metal plate, metal film, and metal shunt CSRs provide high-accuracy current sensing with low inductance and noise. These products are offered in a wide range of EIA footprints with short and wide terminal configurations.

Metal plate

Eaton's metal plate CSRs are constructed using metal plate resistors with an epoxy overcoat and end terminations to provide a low-temperature coefficient of resistance (TCR), low resistance, and high power capability. These products are offered in 0402 to 2512 EIA footprints with short and wide terminal configurations.

Metal film

Eaton's metal foil resistors (metal film resistors) are constructed using high-accuracy foil on a substrate to provide high thermal conductivity, low inductance, and low noise.

They are offered in 0402 to 2512 EIA footprints as well as short and wide terminal configurations. The metal foil portfolio has power ratings up to 3 W and resistances up to 1 Ω . Additionally, the CSL series offers a 4-terminal option in the 1206 size. Many families are AEC-Q200 qualified for automotive and high-reliability applications.

Metal shunt

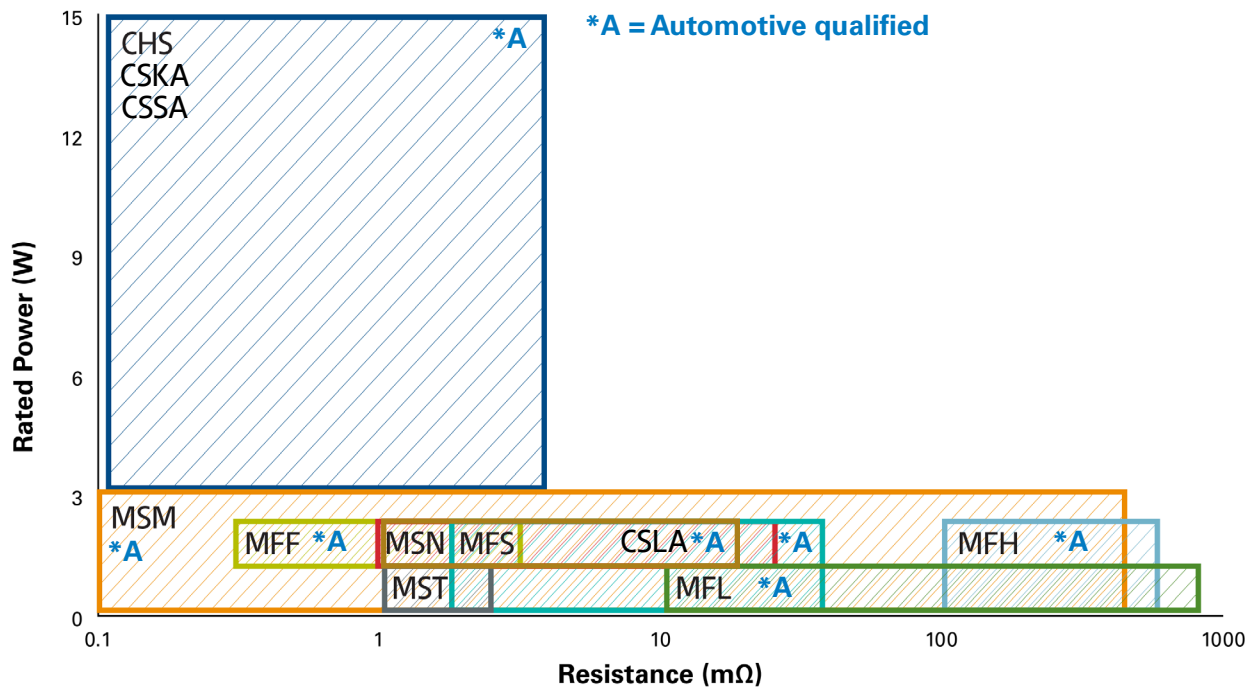
Eaton's current shunts are high-power current sense products that have the benefit of simple and linear current measurement. They are compact and low-profile solutions with power ratings up to 15 W and resistances down to 0.1 m Ω . These products are offered 4 and 2 terminals in different footprints from 1206, 1216, 2726, 4026 to 2512, 3920 and 5930 EIA, with a low inductance (<0.1 μ H) construction. Eaton's current shunts are AEC-Q200 qualified for automotive and high-reliability applications.

Features and benefits

- Ultra-low resistance values in metal plate, metal film, and metal shunt technologies
- Multiple terminal configurations
- Low thermal EMF
- AEC-Q200 qualified metal film and metal shunt options
- High-power and high current capability
- High accuracy and reliability
- Low TCR and high heat dissipation



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Product specifications

Eaton series	Technology	Size range	Min R (mΩ)	Max R (mΩ)	Min power (W)	Max power (W)	Terminal type incl.	Automotive qualified
MFS	Metal Foil	0402 - 2512	2	40	1/4	1.5	Short & wide	✓
MFF	Metal Strip	0612	0.5	5	1	1	4 Terminal	✓
MSM	Metal Strip	0603 - 2512	0	680	1/4	3	Short & wide	✓
MSN	Metal Strip	0612 - 0915	1	30	1	1	Wide	
MST	Metal Strip	0603 - 0805	1	3	1/2	3/4	Short	
MFH	Metal Film	1206 - 2512	100	750	1	1.5	Short	Many
MFL	Metal Film	0402 - 2512	10	910	1/16	3/4	Short	Many
CHS	Shunt	2512 - 5931	0.1	5	3	15	Short	✓
CSKA	Shunt	1216 - 4026	0.3	4	3	12	4 terminal	✓
CSSA	Shunt	2512 - 5930	0.2	5	5	15	Short	✓
CSLA	Metal foil	1206	1	25	1	1	4 terminal	✓

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