

Mini-M-Shunt – Datasheet (V1.1 | 2026)

Low Insertion Inductance

Due to its planar design, the Mini-M-Shunt offers low insertion inductance and easy integration. Expect **0.5 nH to 1.0 nH** insertion.

High Maximum Energy

Due to its wide area for cooling, the Mini-M-Shunt can handle large amounts of energy.

High Bandwidth

For Mini-M-Shunts, the transfer characteristics can be adjusted by design rules. This allows high bandwidths and low deviations.

Fully Temperature

Compensated

Due to the use of temperature-compensated resistors the Mini-M-Shunt can be used from -20°C to 100°C without correction.

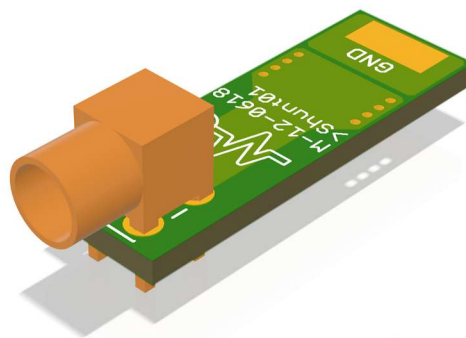
Customisable

Transfer characteristics and maximum energy are independent. Please request a custom-made option if you have a specific application.

Mini-M-Shunt models:

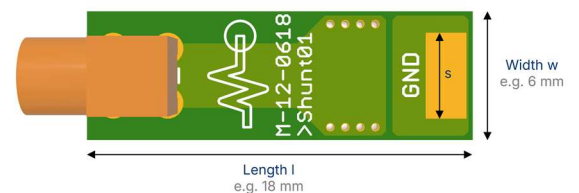
- #0612
- #0618
- #0626

The name indicates the **design-resistance** and the **size** as follows:



resistance[m Ω] M-Shunt ID
M-13-0618 **XXXXXX**
model number

Model #	Width w [mm]	Length l [mm]	Width s [mm]
0612	6	12	4
0618	6	18	4
0626	6	26	4



Model #*	R [m Ω]	$E_{\max 100, \text{theory}}$ [J]	$\pm 3_{\text{dB}}$ BW [MHz]*	10% BW [MHz]**	PP BW [MHz]***	$I_{\text{DC,max}}$ [A]****	I_{max} [kA]
0612	2.5	0.12	110	5	600	10	1
0618	12	0.68	140	30	600	7	1
0626	25	1.40	140	30	600	6.5	1

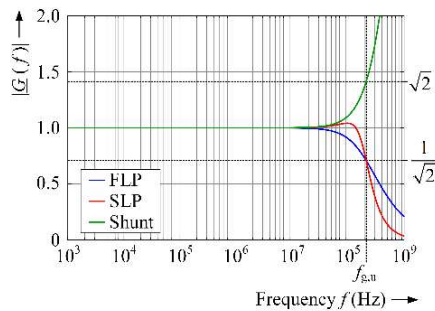
*In this overview only conventional and confirmed datasheet specifications are given, like for other shunts. More detailed, realistic & typical values are given on page 2 or in the application notes which are not guaranteed. Please also refer to the linked publications on our website for explanations.

**Values are without filtering or post processing.

***PP BW is the maximum frequency for high accuracy post processing

**** $I_{\text{DC,max}}$ is rated at ambient temperature without external cooling, based on a maximum allowable shunt temperature of 100°C .

Typical bandwidth & maximum energy



Energy Rating:

- The specified value is based on theoretical considerations for infinitely short pulse duration.
- These values may be significantly exceeded in practical applications.
- Approval for higher energy loads is required. Please send a detailed description of your application to info@m-shunt.com

Bandwidth Rating:

M-Shunts can be inductive or capacitive depending on the model. Unmarked models behave approximately like a First Order Low Pass (FLP). For measurements with high demands we recommend determining the deviation (e.g. 10% given) instead of the 3 dB bandwidth to avoid unnecessary correction factors. For more details please visit <http://www.m-shunt.com/bw/> or the [publications](#) on bandwidth.

Which bandwidth should I use?

From our point of view, the 3 dB bandwidth is not an accurate statement. Please refer to the typical deviation table or use post processing. More information on

www.m-shunt.com/bw/

How much energy can I consider?

The maximum energy level can be exceeded significantly for short periods and pulses. This is at your own risk or should be checked with us.

FAQ Products



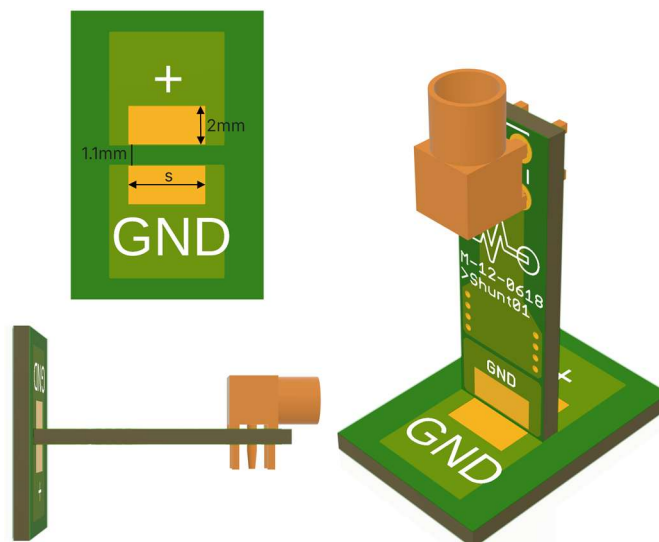
Support

Please feel free to contact us

info@m-shunt.com

Application Notes

- The low-side connection-pad of the shunt is labeled as GND.
- In order to avoid potential common-ground issues, utilising optical probes is recommended.
- Do not use the shunt if the resistance value has changed more than 10%.
- The measurement takes place between the middle pin and the soldering pad. SMA or MMCX connectors can be replaced with wire connectors.
- 3D models and recommended PCB footprints for M-Shunts are available upon request.



Visit our website:

[How to connect the shunt?](#)
[Measuring the bandwidth](#)
[Increasing the bandwidth](#)
[Measurement deviations](#)
[Post-Processing](#)

Scientific Papers:



www.m-shunt.com/scientific/



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H. Lutzen, V. Polezhaev, S. Clausner,
T. Huesgen, N. Kaminski
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