

Suppression Coils

FASTRON's suppression coils come with high rated currents and low DC resistance characteristics. Inductance values range from 1µH to 10000µH. They are available in tape and ammo pack packaging.

Applications Communication: RF blocking, filtering and decoupling
Others: entertainment electronics and interference suppression

Technical Data

L – Value (rated inductance)	Measured with Bode 100 Vector Network Analyzer or equivalent at frequency f_L
DCR (max)	Measured at 25°C
Rated DC Current	I based on temperature rise, determined at the point where the temperature rise does not exceed 40°C above the ambient temperature of 25°C
Operating Temperature	-55°C to +125°C (including component self-heating)
Recommended Soldering Method	Wave
Moisture Sensitivity Levels (MSL)	MSL Level 1, indicating unlimited floor life at ≤ 30°C / 85% relative humidity
Solderability	Using lead free solder (Sn 99.9) at 260°C ± 5°C for 5 ± 0.5 seconds, min 90% solder coverage of metallization Standard: IEC 68-2-20 (Ta)
Resistance to Soldering Heat	Resistant to 260°C ± 5°C for 10 ± 1 seconds Standard: IEC 68-2-20 (Tb)
Resistance to Solvent	Resistant to isopropyl alcohol for 5 ± 0.5 minutes at 23°C ± 5°C Standard: IEC 68-2-45
Climatic Test	Defined by the following standards IEC 68-2-1 for cold test: -55°C for 96 hours IEC 68-2-2 for dry heat test: +125°C for 96 hours IEC 60068-2-78 for humidity test: 40°C at RH 95% for 4 days
Thermal Shock Test	Temperature cycle: -55°C to +125°C to -55°C Max/Min temperature duration: 15 minutes Temperature transition duration: 5 minutes Cycles: 25 Standard: MIL-STD-202G
Tensile Strength of Leads (Pull Test)	Components withstand a pulling force of 20N for 10 ± 1 seconds IEC 60068-2-21 (Ua ₁)
Mechanical Shock	Mil-Std 202 Method 213 Condition C 3 axis, 6 times, total 18 shocks 100 G, 6 ms, half-sine
Vibration	Mil-Std 202 Method 204 20 mins at 5G 10 Hz to 2000 Hz 12 cycles each of 3 orientations

Ordering Code Example: MISC-100X-YY

MISC - 100 X - YY → **MISC-100M-01**
(Model) (Inductance Value) (Tolerance) (Packaging Code)

Core Types - Ferrite, Iron Dust

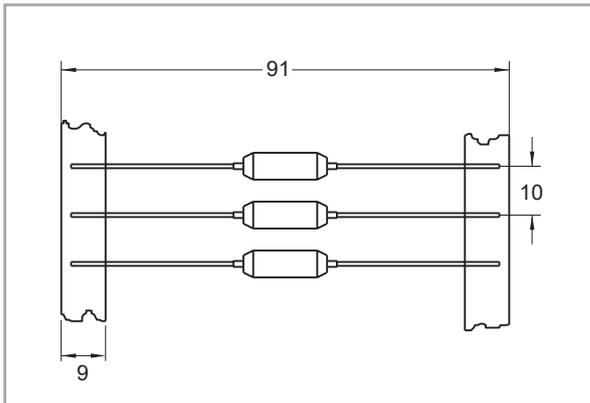
Tolerances - K (10%), M (20%)

Packaging Code - 00 (Loose in Box), 01 (Taped / Reel)

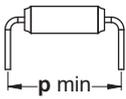
Packaging Specification

Standard Axial Taping

Packaging code: 01



Recommended forming pitch



Series	MISC	SMSC	MESC	LASC	SSSC	MSSC	LSSC	77A
p min (mm)	17.5	22.5	28	32.5	27.5	32.5	37.5	29.5 (33.5*)

*only valid for 77A-3R9M-00

Packaging Specification

FASTRON's Component Key Characteristics



Approved according to AEC-Q200



Approved according to AEC-Q200 with High Temperature



Suitable for High Temperature



Part is RoHS conform and Halogen free



Mechanical Shock and Vibration Proof



Designed for High Q-values



Exceptionally High Q-values



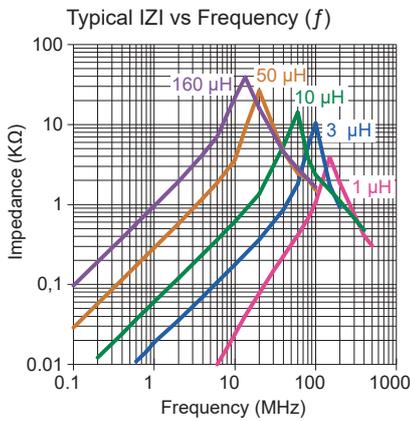
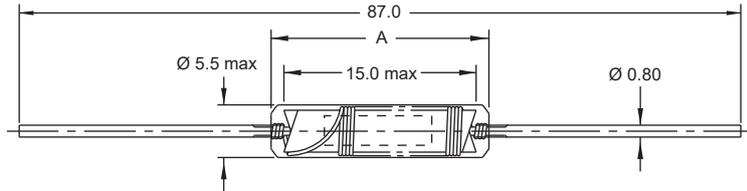
Optimized for High Currents



Optimized for High Voltages



L (μH)	A (max)
1 - 23	17
50 - 160	19



Part No	Inductance	f _L	Tol	DCR	Rated DC
	L (μH)	(kHz)	± (%)	max (mΩ)	Current (A)
SMSC-1R0M-01	1	1000	20	14	6
SMSC-2R0M-01	2	1000	20	24	4
SMSC-3R0M-01	3	1000	20	46	3
SMSC-6R0M-01	6	1000	20	144	2
SMSC-100M-01	10	1000	20	276	1.5
SMSC-230M-01	23	100	20	876	0.7
SMSC-500M-01	50	100	20	3600	0.4
SMSC-700M-01	70	100	20	5400	0.3
SMSC-161M-01	160	100	20	21600	0.15

Core Material: Iron Dust

Revision date: 09 May 2017

SPQ:

Packaging Form	Taped / Reel
Axial	1500 [-01]

Remarks:

- Available also without insulating material (SMSC/B).
- Single layer - Model with Insulation Foil are suitable for Application in "Power Line", rated voltage 230V AC (Testvoltage 500V DC).