

Suppression Coils

FASTRON's suppression coils come with high rated currents and low DC resistance characteristics. Inductance values range from 1 μ H to 10000 μ H. 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 $\leq 30^\circ\text{C}$ / 85% relative humidity
Solderability	Using lead free solder (Sn 99.9) at $260^\circ\text{C} \pm 5^\circ\text{C}$ for 5 ± 0.5 seconds, min 90% solder coverage of metallization Standard: IEC 68-2-20 (Ta)
Resistance to Soldering Heat	Resistant to $260^\circ\text{C} \pm 5^\circ\text{C}$ for 10 ± 1 seconds Standard: IEC 68-2-20 (Tb)
Resistance to Solvent	Resistant to isopropyl alcohol for 5 ± 0.5 minutes at $23^\circ\text{C} \pm 5^\circ\text{C}$ 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: $+125^\circ\text{C}$ 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 $+125^\circ\text{C}$ 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

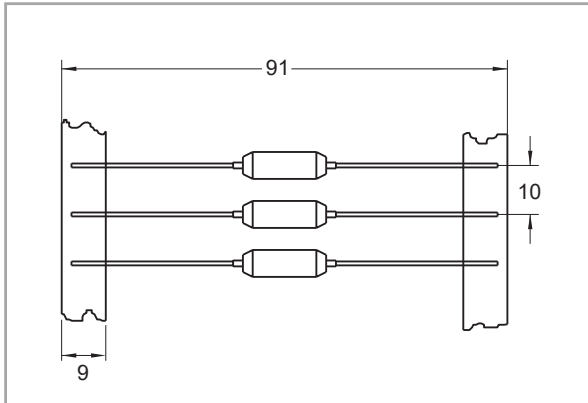
Tolerances - K (10%), M (20%)

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

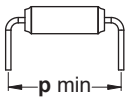
Packaging Specification

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



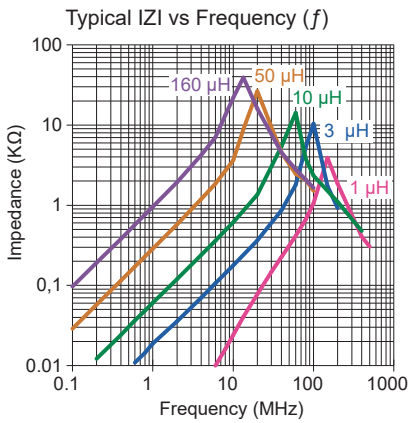
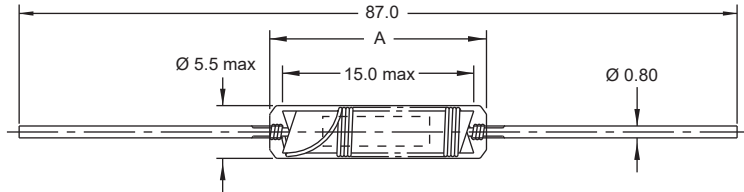
Optimized for High Currents



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).

Mouser Electronics

Authorized Distributor

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Fastron:

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