

HIGH RELIABILITY SMT CHIP INDUCTORS

SERIES 0402/ 0603/ 0805



SUMIDA Components GmbH is a well-known manufacturer of RF electronic components for the high reliability market.

Within our product program, we offer standard platforms as well as custom solutions designed and manufactured with the highest level of quality.

CHARACTERISTICS OF WIRE-WOUND HR SMT CHIP INDUCTORS DESCRIPTION

SUMIDA HR SMT Chip Inductors are wire-wound on our proprietary formulation of ceramic or ferrite cores giving them the highest Q-factors and resonant frequencies.

Different applications require different component characteristics such as extended temperature or greater levels of shock and vibration durability. These HR families of components meet the stringent requirements of these most demanding environments.

Our value added options include special termination fi-

nishes to improve solder behaviour and robustness of PCB connection by tinning with either tin/lead or RoHS compatible materials.

We have also established sophisticated high reliability testing and inspection flows as standards which can be extended by custom specific electrical, mechanical and environmental testing including documentation.

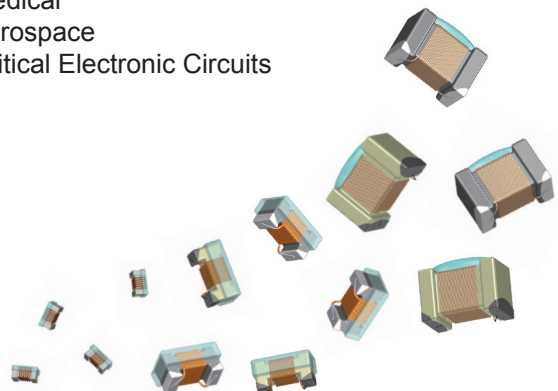
SUMIDA Components GmbH has certified testing facilities in Asia and Europe to perform comprehensive laboratory testing services for electronic components.

TESTING

- High reliability Testing & Inspection Flow
- AEC-Q 200, Table 5
- ASTM E 595 - Outgassing
- JESD22 Method A104 - JESD 201 - Sn Whisker
- MIL-STD-202 Method 204 - Condition H (Vibration / 5 g)
- MIL-STD-202 Method 213 - Condition F (Mechanical Shock)
- MIL-STD-202 Method 215 - Resistance to Solvents
- MIL-STD-883
- Rated Current Burn-In
- Cross-Sectional Microstructure
- Pulse Test

APPLICATIONS

- Medical
- Aerospace
- Critical Electronic Circuits



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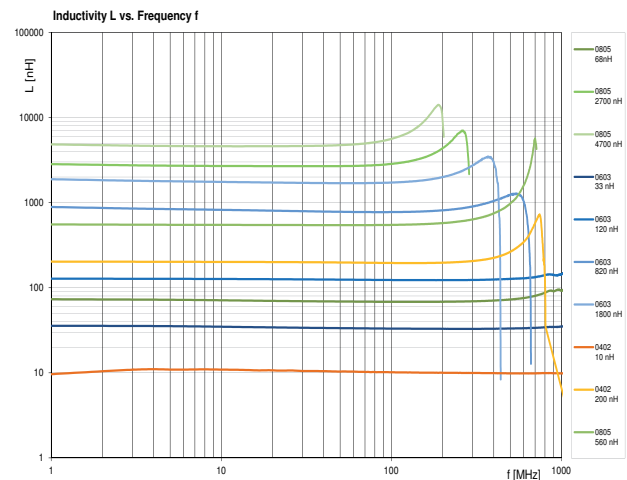
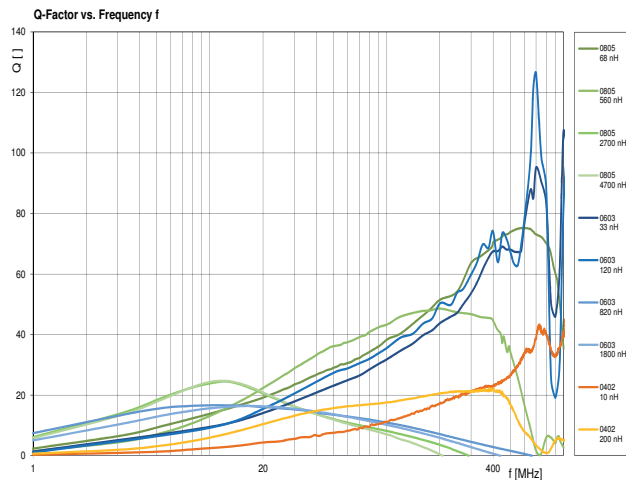
ELECTRICAL PARAMETERS

	Symbol	0402 (1005)	0603 (1608)	0805 (2012)
Inductance	L	1,0 ... 220 nH	1,5 ... 2700 nH	2,7 ... 3900 nH
Tolerance (depends on L-Value)	-	2 /5 /10 %	2/5/10/20 %	2/5/10/20 %
Minimum Q-factor	Q_{\min}	10 ... 28	12 ... 45	20 ... 50
Self Resonance Frequency	$f_{\text{res, min}}$		260 ... > 6000 MHz	150 ... > 6000 MHz
Max. DC Resistance	$R_{\text{DC, max}}$	60 ... 2100 mΩ	25 ... 4000 mΩ	30 ... 3600 mΩ
Rated Current (ref. to 85 °C)	I_{rated}	1000 ... 150 mA	80 ... 1000 mA	95 ... 1000 mA
Operating Temperature Range	-	-55 ... +150 °C	-55 ... +150 °C	-55 ... +180 °C *

* uncoated

Further L-Values and Tolerances on request

DIAGRAM



TERMINATIONS OPTIONS

	Terminal Metallization			Tinned Version
	AgPdPt	AgPd/Ni/Sn	MoMn/Ni/Au	SnPb*
0402 (1005)	on request	-	x	on request
0603 (1608)	on request	x	-	on request
0805 (2012)	x	x	-	on request

* non RoHS compliant

QUALITY MANAGEMENT SYSTEM

Certified QM-System:
IATF 16949
DIN EN ISO 9001

Certified EM-System:
DIN EN ISO 14001
DIN EN ISO 50001

