

MMI297 - MMI306 Series



High “Q”, Thin Film, Spiral Inductors

Rev. V1

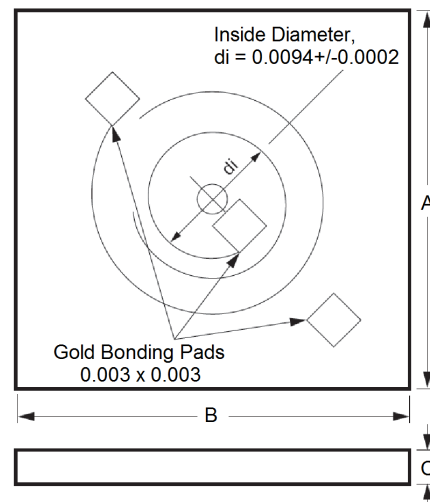
Features

- No Need for “Staking” Coil
- Passivated Protective Coating Over Coil
- Dimensional Uniformity
- Planar Solid Structure Coil

Description

The MMIx Series of spiral inductors are formed by photolithography and plating techniques on quartz substrates. They eliminate the need for hand forming and “staking” of coil in hybrid circuits.

These inductors provide uniformity, durability and repeatability in circuit fabrication. The coils are polyimide coated to protect from ambient contaminants, and to eliminate the need for conformal coating. Quartz substrates are rugged and reduce dielectric losses. Chips may be bonded using either conductive or non conductive epoxies, and wire bonded with gold wire or ribbon by thermo compression bonding.



Dimensions: Inches (maximum)

Part #	A & B
MMI297, MMI298	0.030
MMI299, MMI300, MMI301	0.040
MMI302	0.045
MMI303	0.055
MMI304	0.065
MMI305	0.075
MMI306	0.085

1. The maximum dimension for C is 0.012 for all devices.

Electrical Specifications: $T_c = +25^\circ\text{C}$

Part #	# of Turns	Inductance			Series Resistance		Quality Factor		Frequency	
					DC	1 GHz	@ Test Frequency		Test	Resonant
		nH			Ω				GHz	
		Min.	Typ.	Max.	Typ.		Min.	Max.	Typ.	
MMI297	1.5	1.0	1.5	2.0	8.5	1.0	60	75	1.5	4.0
MMI298	2.5	2.0	2.3	2.6	1.0	1.4	50	60	1.5	3.6
MMI299	3.5	3.6	4.2	5.0	1.15	2.0	40	45	1.5	3.2
MMI300	4.5	5.0	7.5	9.0	1.75	3.5	37	43	1.5	2.3
MMI301	5.5	8	10	12	1.85	3.75	33	38	1.0	2.05
MMI302	7.5	15	20	25	2.4	4.25	27	33	0.5	1.85
MMI303	9.5	32	40	48	4.0	70	23	27	0.5	1.4
MMI304	12.5	80	90	100	9.5	22	18	24	0.5	0.975
MMI305	15.5	150	200	250	16.5	36	14	18	0.5	0.460
MMI306	18.5	250	300	350	20.0	42	10	15	0.5	0.250

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