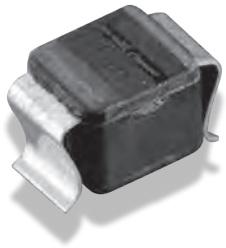
Miniature High Temperature Chip Inductors
MPCI 233 Series



- High temp. RF inductances
- Excellent Q values even at high frequencies
- Very high self-resonant frequencies (SFRs)
- Tinned or gold plated terminations
- Frequency range: 790 kHz to 500 MHz
- Operating temperature range: –55°C to +175°C
- Weight: 0.15 gram
- MSL level: 1

Electrical Data (25°C)

ID Code	Inductance µH	Q Min	Test Freq. MHz	SFR Min. MHz	R_{DC} max. Ω	DC Current mA max	Tol %
MPCI 233 000 010	0.010	60	150	1000	0.04	1000	
MPCI 233 000 012	0.012	70	150	1000	0.04	1000	
MPCI 233 000 015	0.015	75	150	1000	0.04	1000	
MPCI 233 000 018	0.018	75	150	1000	0.04	1000	
MPCI 233 000 022	0.022	60	100	1000	0.05	1000	
MPCI 233 000 027	0.027	60	100	1000	0.05	1000	
MPCI 233 000 033	0.033	60	100	1000	0.05	1000	
MPCI 233 000 039	0.039	60	100	1000	0.06	900	
MPCI 233 000 047	0.047	65	100	800	0.06	900	
MPCI 233 000 056	0.056	65	100	760	0.06	900	
MPCI 233 000 068	0.068	65	100	700	0.07	840	
MPCI 233 000 082	0.082	65	100	650	0.07	840	
MPCI 233 000 100	0.100	65	50	570	0.07	840	
MPCI 233 000 120	0.120	65	50	520	0.07	840	
MPCI 233 000 150	0.150	75	50	400	0.08	790	
MPCI 233 000 180	0.180	75	50	360	0.08	790	
MPCI 233 000 220	0.220	70	50	320	0.08	790	
MPCI 233 000 270	0.270	70	50	270	0.10	700	
MPCI 233 000 330	0.330	70	50	240	0.10	700	
MPCI 233 000 390	0.390	70	50	220	0.10	700	10
MPCI 233 000 470	0.470	70	25	190	0.14	590	
MPCI 233 000 560	0.560	70	25	170	0.19	510	
MPCI 233 000 680	0.680	70	25	160	0.26	430	
MPCI 233 000 820	0.820	75	25	150	0.30	400	
MPCI 233 001 000	1.00	75	25	130	0.34	380	
MPCI 233 001 200	1.20	65	7.9	120	0.45	330	
MPCI 233 001 500	1.50	65	7.9	110	0.57	290	
MPCI 233 001 800	1.80	65	7.9	100	0.72	260	
MPCI 233 002 200	2.20	65	7.9	80	0.90	230	
MPCI 233 002 700	2.70	65	7.9	60	1.10	210	
MPCI 233 003 300	3.30	60	7.9	50	1.20	200	
MPCI 233 003 900	3.90	60	7.9	45	1.40	180	
MPCI 233 004 700	4.70	60	7.9	42	1.60	170	
MPCI 233 005 600	5.60	65	7.9	40	1.80	160	
MPCI 233 006 800	6.80	65	7.9	37	2.40	140	
MPCI 233 008 200	8.20	65	7.9	34	3.00	130	
MPCI 233 010 000	10.0	65	7.9	29	3.50	120	
MPCI 233 012 000	12.0	60	2.5	27	3.60	118	
MPCI 233 015 000	15.0	60	2.5	22	3.70	115	
MPCI 233 018 000	18.0	60	2.5	17	3.80	114	
MPCI 233 022 000	22.0	60	2.5	16	3.90	113	
MPCI 233 027 000	27.0	65	2.5	15	4.00	110	
MPCI 233 033 000	33.0	65	2.5	14	5.00	100	
MPCI 233 039 000	39.0	65	2.5	13	7.00	84	
MPCI 233 047 000	47.0	70	2.5	12	8.00	79	
MPCI 233 056 000	56.0	70	2.5	11	10.0	70	
MPCI 233 068 000	68.0	65	2.5	10	11.0	67	
MPCI 233 082 000	82.0	60	2.5	9	12.0	64	
MPCI 233 100 000	100	60	2.5	8	13.0	62	
MPCI 233 120 000	120	40	0.79	7	14.0	59	10
MPCI 233 150 000	150	40	0.79	6	16.0	56	
MPCI 233 180 000	180	40	0.79	5	18.0	52	
MPCI 233 220 000	220	40	0.79	4	24.0	45	
MPCI 233 270 000	270	40	0.79	3.3	25.0	44	
MPCI 233 330 000	330	40	0.79	3;1	29.0	41	
MPCI 233 390 000	390	40	0.79	2.9	32.0	39	
MPCI 233 470 000	470	35	0.79	2.4	35.0	37	
MPCI 233 560 000	560	35	0.79	2.1	45.0	33	
MPCI 233 680 000	680	35	0.79	1.9	55.0	30	
MPCI 233 820 000	820	30	0.79	1.8	70.0	26	
MPCI 233 1000 000	1000	30	0.79	1.7	80.0	25	

Other inductance values on request.

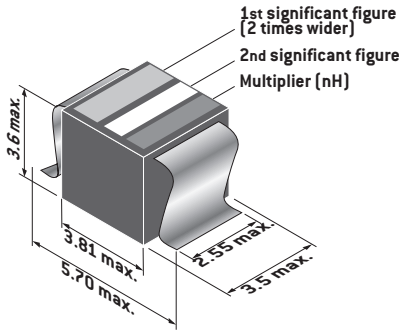
Inductance variation: 60 PPM /°C max. in the range 0.01 to 1 µH
80 PPM /°C max. in the range 1.2 to 10 µH
150 PPM /°C max. in the range 12 to 100 µH
300 PPM /°C max. in the range 120 to 1000 µH

To Order

MPCI 233 ### ### x10

MPCI 233	### ###	x	y
Range	Inductance Value	Terminations x = **G** for Gold x = **T** for Tinned	Tolerance: **10** for ±10%

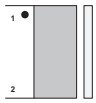
Typical Dimensions (mm)



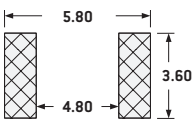
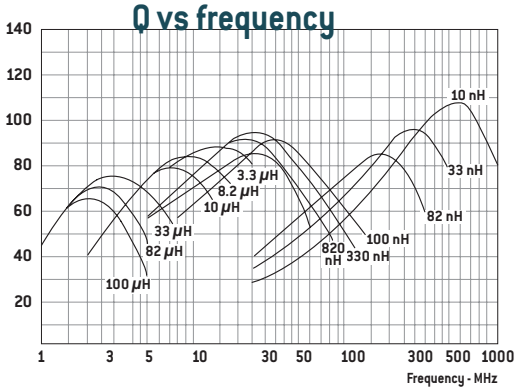
Packaging

Tray: 24 pieces / tray
Upon request: tape (lot 150 pieces) or tape & reel

Connections



PCB Layout (suggested)



Q vs frequency