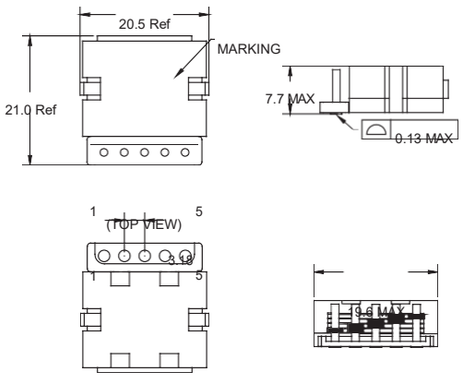
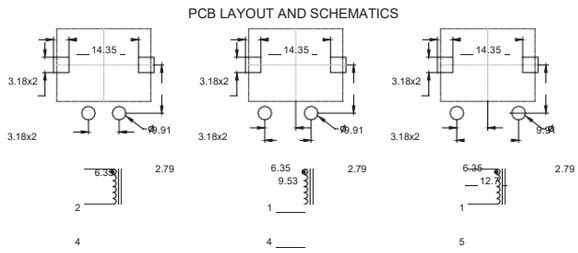
MGT-580 SERIES

Planar Inductors

- Designed for high current
- Lowest DCR / Inductance, high efficiency
- Winding to core isolation is 300 Vrms



PCB LAYOUT AND SCHEMATICS



(BOTTOM VIEW) UNIT : mm

Part Number	Inductance @ Irated (μH± 15%)	Irated (ADC)	Inductance @ 0ADC (μH± 15%)	Saturation current(A)		Temperature Rise current (ADC)	DCR (mΩ) max. @20℃
				25℃ Isat (ADC)	100℃ Isat (ADC)		
2-Turns (Low-Loss) Series at Pin2~4							
MGT – 580 – 1 – R45	0.45	54	0.45	93	77	54	0.52
MGT – 580 – 1 – R65	0.63	54	0.65	69	56	54	0.52
MGT – 580 – 1 – R91	0.85	35	0.91	42	36	54	0.52
MGT – 580 – 1 – 1R1	1.05	34	1.10	40	33	54	0.52
MGT – 580 – 1 – 1R3	1.25	27	1.30	32	27	54	0.52
MGT – 580 – 1 – 1R5	1.45	23	1.50	28	25	54	0.52
2-Turns Series at Pin2~4							
MGT – 580 – 2 – R45	0.45	44	0.45	97	84	44	0.98
MGT – 580 – 2 – R65	0.63	44	0.65	73	58	44	0.98
MGT – 580 – 2 – R91	0.85	42	0.91	51	44	44	0.98
MGT – 580 – 2 – 1R1	1.05	34	1.10	40	35	44	0.98
MGT – 580 – 2 – 1R3	1.25	28	1.30	34	29	44	0.98
MGT – 580 – 2 – 1R5	1.45	23	1.50	28	24	44	0.98
3-Turns Series at Pin1~4							
MGT – 580 – 3 – 1R0	0.95	36	1.0	68	55	36	1.60
MGT – 580 – 3 – 1R5	1.40	36	1.5	46	36	36	1.60
MGT – 580 – 3 – 2R0	1.90	29	2.0	35	28	36	1.60
MGT – 580 – 3 – 2R5	2.40	22	2.5	26	22	36	1.60
MGT – 580 – 3 – 3R0	2.80	18	3.0	22	19	36	1.60
MGT – 580 – 3 – 3R5	3.40	15	3.5	18	16	36	1.60
4-Turns Series at Pin1~5							
MGT – 580 – 4 – 1R6	1.60	33	1.60	53	42	33	2.16
MGT – 580 – 4 – 2R42	2.40	29	2.42	36	30	33	2.16
MGT – 580 – 4 – 3R6	3.30	20	3.60	24	21	33	2.16
MGT – 580 – 4 – 4R4	4.00	15	4.40	18	16	33	2.16
MGT – 580 – 4 – 5R34	4.90	13	5.34	16	14	33	2.16
MGT – 580 – 4 – 6R2	5.80	11	6.20	13	12	33	2.16

1. Inductance measuring condition: at 100 KHz, 0.1 Vrms
2. Operating temperature range -40℃ to +130℃ (Including coil's self temperature rise)
3. Storage temperature range -25℃ to +100℃.
4. The rated current as listed is either 85% of the saturation current or the heating current, depending on which value is lower.
5. The saturation current is the current which causes the inductance to drop by 15% at the stated ambient temperatures(25℃ and 100℃),this current is determined by placing the component in the specified ambient environment and applying a short duration pulse current(to eliminate self-heating effects)to the component.
6. The heating current is the DC current which causes the temperature of the part to increase by approximately 40℃(Ta =25 degree)

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