TMAC Series (Rev. 1.0)

TMAC series is designed for low RDC and ultra large current application. Its assembly model magnetic shielded type is suitable for high-density mounting and ultra low buzz noise. Soldering conditions can be easily confirmed when mounting onto the board.

Features

* Excellent for power line DC-DC
* Shielded construction
* Low DCR/ uH, in this package series
* Handle high transient current spikes without saturation
* Ultra low buzz noise, due to composite construction

Applications

* Power line DC-DC conversion
* Handheld electronic equipment .
* PC

Product Identification

TMAC	100909	-	R33	M
1	2		3	4

1. Product Code
2. Size Code
3. Inductance: 0.33uH
4. Tolerance: M=±20%

Operating & Storage Condition

* Operating Temp :Stand Type:-40 to +125°C
* Storage Temp : Stand Type: -40 to +125°C
* Storage Life Time: 12 Months @25°C,RH40～65%

Test Equipment

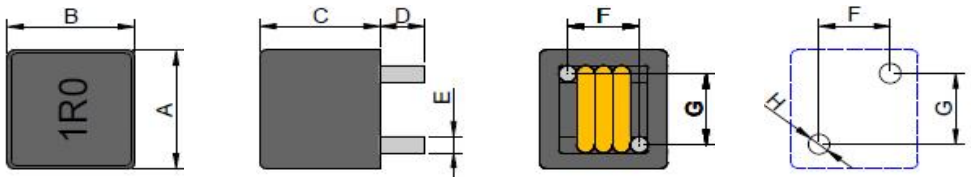
* HP4284A,HP42841A- L,IDC,Q.RDC
* HP8753D Network Analyzer - SRF

Standard Atmospheric Conditions

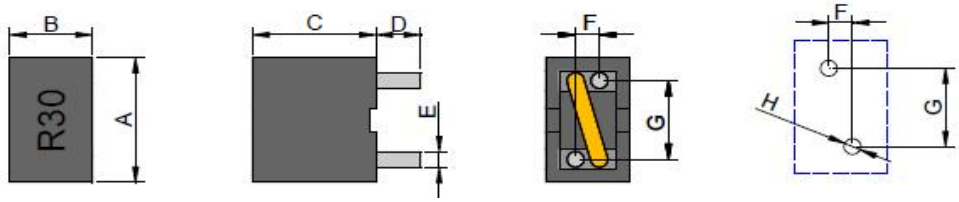
* Ambient Temp : 20 ± 15°C
* Relative Humidity : 65 ± 20%

Dimension & Recommended PAD Layout: [mm]

Top View	Side View	Bottom View	Pad Layout



(TMAC080806/101009/121209/131210)



(TMAC100609)

Size Code	A(±0.5)	B(±0.5)	C(±0.5)	D(±0.5)	E	F	G	H
080806	8.0	8.0	6.5	3.5	Vary with different P/N. Refer to page.			
100609	10.3	6.3	9.5	3.5	Vary with different P/N. Refer to page.			
101009	10.2	10.2	9.3	3.5	Vary with different P/N. Refer to page.			
121209	12.2	12.2	9.5	3.5	Vary with different P/N. Refer to page.			
131210	13.0	12.0	10.8	3.5	Vary with different P/N. Refer to page.			

TMAC Series (Rev. 1.0)

Electrical Characteristics

P/N	Inductance (uH)	DCR (mΩ) typ.	DCR (mΩ) max.	Isat (A) typ.	Irms (A) typ.	DIMENSION (mm)			
						E±0.1	F±0.3	G±0.3	H ref.
TMAC080806-R20M	0.20	1.50	1.65	35.0	25.0	0.8	4.7	4.7	1.0
TMAC080806-R30M	0.30	2.10	2.31	30.0	22.0	0.7	4.8	4.8	0.9
TMAC080806-R36M	0.36	2.75	3.02	28.0	22.0	0.7	4.8	4.8	0.9
TMAC080806-R39M	0.39	2.75	3.02	26.0	22.0	0.7	4.8	4.8	0.9
TMAC080806-R47M	0.47	2.75	3.02	24.0	20.0	0.7	4.8	4.8	0.9
TMAC080806-R60M	0.60	2.46	2.71	23.0	20.0	0.8	4.7	4.7	1.0
TMAC080806-R68M	0.68	3.10	3.41	22.0	20.0	0.7	4.8	4.8	0.9
TMAC080806-R80M	0.80	3.30	3.63	20.0	18.0	0.7	4.8	4.8	0.9
TMAC080806-1R0M	1.00	3.30	3.63	19.0	18.0	0.8	4.7	4.7	1.0
TMAC080806-1R2M	1.20	4.20	4.62	17.0	17.0	0.7	4.8	4.8	0.9
TMAC080806-1R5M	1.50	4.60	5.06	16.0	16.0	0.7	4.8	4.8	0.9
TMAC080806-1R8M	1.80	4.80	5.28	15.0	16.0	0.7	4.8	4.8	0.9
TMAC100609-R30M	0.30	0.60	0.65	40.0	35.0	1.6	1.8	6.5	1.8
TMAC100609-R33M	0.33	0.60	0.65	38.0	35.0	1.3	1.8	6.5	1.5
TMAC100609-R36M	0.36	0.60	0.65	36.0	35.0	1.3	1.8	6.5	1.5
TMAC100609-R47M	0.47	0.60	0.65	34.0	35.0	1.3	1.8	6.5	1.5
TMAC100909-R25M	0.25	0.67	0.74	60.0	40.0	1.4	5.8	6.2	1.6
TMAC100909-R30M	0.30	0.67	0.74	60.0	40.0	1.4	5.8	6.2	1.6
TMAC100909-R33M	0.33	0.67	0.74	60.0	40.0	1.4	5.8	6.2	1.6
TMAC100909-R36M	0.36	0.68	0.75	50.0	40.0	1.4	5.8	6.2	1.6
TMAC100909-R39M	0.39	0.89	0.98	50.0	40.0	1.4	5.8	6.2	1.6
TMAC100909-R47M	0.47	0.89	0.98	50.0	35.0	1.4	5.8	6.2	1.6
TMAC100909-R60M	0.60	0.89	0.98	50.0	35.0	1.4	5.8	6.2	1.6
TMAC100909-R80M	0.80	1.56	1.72	40.0	33.0	1.2	6.0	6.4	1.4
TMAC100909-1R0M	1.00	1.56	1.72	40.0	27.0	1.2	6.0	6.4	1.4
TMAC100909-1R2M	1.20	1.60	1.76	40.0	25.0	1.2	6.0	6.4	1.4
TMAC100909-1R5M	1.50	2.60	2.86	30.0	21.0	1.0	6.2	6.6	1.2
TMAC100909-1R8M	1.80	2.60	2.86	30.0	21.0	1.0	6.2	6.6	1.2
TMAC100909-2R2M	2.20	3.70	4.07	30.0	18.0	0.9	6.3	6.7	1.1
TMAC121209-R80M	0.80	1.00	1.10	45.0	25.0	1.4	7.6	7.6	1.6
TMAC121209-1R0M	1.00	1.20	1.32	45.0	25.0	1.4	7.6	7.6	1.6
TMAC121209-1R2M	1.20	1.70	1.87	33.0	23.0	1.2	7.8	7.8	1.4
TMAC121209-1R5M	1.50	2.00	2.20	32.0	21.0	1.2	7.8	7.8	1.4
TMAC121209-1R8M	1.80	2.00	2.20	30.0	18.0	1.2	7.8	7.8	1.4
TMAC121209-2R0M	2.00	3.20	3.52	27.0	15.0	1.0	8.0	8.0	1.2
TMAC121209-2R2M	2.20	3.20	3.52	40.0	15.0	1.0	8.0	8.0	1.2
TMAC121209-2R5M	2.50	3.20	3.52	30.0	15.0	1.0	8.0	8.0	1.2
TMAC131210-1R0M	1.00	1.18	1.30	50.0	30.0	1.5	7.3	8.3	1.7
TMAC131210-1R2M	1.20	1.18	1.30	40.0	30.0	1.5	7.3	8.3	1.7
TMAC131210-1R5M	1.50	1.30	1.43	30.0	25.0	1.4	7.4	8.4	1.6
TMAC131210-1R8M	1.80	2.20	2.42	30.0	20.0	1.2	7.6	8.6	1.4
TMAC131210-2R0M	2.00	2.20	2.42	25.0	17.0	1.2	7.6	8.6	1.4

* Test Condition: @100KHz/ 1.0V, 25°C Ambient
* Irms DC current (A) that will cause an approximate ΔT of 40°C
* Isat DC current (A) that will cause L to drop approximately 20%