

FEATURES

- Alloy iron powder material core provides large saturation current.
- Low DCR to achieve high conversion efficiency.
- Molding construction reduces buzz noise to ultra-low levels.
- Closed magnetic circuit design reduces leakage flux and EMI.
- Miniaturization and excellent temperature characteristics.
- Operating temperature: $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$.



APPLICATIONS

- Smart phone, Pad.
- Notebooks, VR, AR.
- Portable gaming devices, Smart wear, Wi-Fi module.

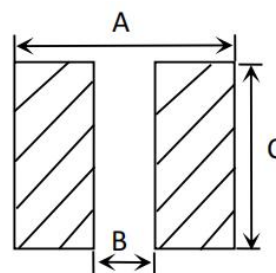
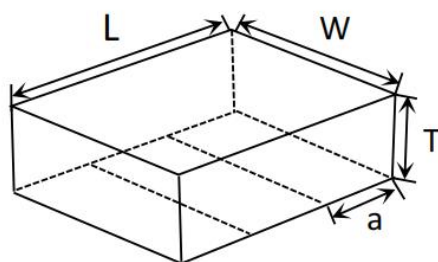
PRODUCT IDENTIFICATION

MCP 201610 S 1R0 M T

(1) (2) (3) (4) (5) (6)

- (1) 系列名称 Series name
- (2) 产品尺寸 Product dimensions
- (3) 特性类别 Feature Type (S:Standard 标准型)
- (4) 电感量 Inductance Value (1R0:1.0uH, 100:10uH, 101:100uH)
- (5) 电感公差 Inductance Tolerance(K:10%, M:20%, N:30%)
- (6) 包装 Package(T:Tape&Reel 卷盘编带)

SHAPE AND DIMENSIONS



Series	L	W	T Max	a	A Ref	B Ref	C Ref
MCP160865	1.6±0.1	0.8±0.1	0.65	0.55±0.2	1.70	0.40	0.90
MCP160808	1.6±0.2	0.8±0.2	0.80	0.55±0.2	1.70	0.40	0.90
MCP201208	2.0±0.2	1.2±0.2	0.80	0.75±0.2	2.10	0.50	1.30
MCP201210	2.0±0.2	1.2±0.2	1.00	0.75±0.2	2.10	0.50	1.30
MCP201608	2.0±0.2	1.6±0.2	0.80	1.60±0.2	2.10	0.50	1.70
MCP201610	2.0±0.2	1.6±0.2	1.00	1.60±0.2	2.10	0.50	1.70
MCP252010	2.5±0.2	2.0±0.2	1.00	0.90±0.2	2.60	0.70	2.10
MCP252012	2.5±0.2	2.0±0.2	1.20	0.90±0.2	2.60	0.70	2.10
MCP322510	3.2±0.2	2.5±0.2	1.00	1.15±0.2	3.25	0.90	2.55
MCP322512	3.2±0.2	2.5±0.2	1.20	1.15±0.2	3.25	0.90	2.55
MCP322520	3.2±0.2	2.5±0.2	2.00	1.15±0.2	3.25	0.90	2.55
MCP303012	3.0±0.1	3.0±0.1	1.20	1.00±0.2	2.90	0.90	2.90
MCP303018	3.0±0.1	3.0±0.1	1.80	1.00±0.2	2.90	0.90	2.90
MCP303020	3.0±0.1	3.0±0.1	2.00	1.00±0.2	2.90	0.90	2.90
MCP404010	4.1±0.2	4.1±0.2	1.00	1.45±0.2	3.90	1.30	3.90
MCP404012	4.1±0.2	4.1±0.2	1.20	1.45±0.2	3.90	1.30	3.90
MCP404020	4.1±0.2	4.1±0.2	2.00	1.45±0.2	3.90	1.30	3.90
MCP404030	4.1±0.2	4.1±0.2	3.00	1.45±0.2	3.90	1.30	3.90

Unit:mm

SPECIFICATIONS

MCP160865 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR (m Ω)		Isat(A)		Irms(A)	
				Typ.	Max.	Typ.	Max.	Typ.	Max.
MCP160865SR22MT	0.22	20	1MHz/1V	35	43	4.7	4.3	3.8	3.5
MCP160865SR47MT	0.47	20	1MHz/1V	66	82	3.3	3.0	2.3	2.0

MCP160808 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR (m Ω)		Isat(A)		Irms(A)	
				Typ.	Max.	Typ.	Max.	Typ.	Max.
MCP160808SR22MT	0.22	20	1MHz/1V	33	40	5.5	5.0	3.4	3.0
MCP160808SR24MT	0.24	20	1MHz/1V	22	26	4.9	4.4	3.9	3.5
MCP160808SR47MT	0.47	20	1MHz/1V	38	45	4.0	3.5	3.8	3.4
MCP160808SR56MT	0.56	20	1MHz/1V	51	63	3.0	2.7	2.5	2.2
MCP160808SR68MT	0.68	20	1MHz/1V	110	130	3.3	3.0	2.1	1.9
MCP160808S1R0MT	1.0	20	1MHz/1V	180	200	3.0	2.6	2.1	1.8
MCP160808S2R2MT	2.2	20	1MHz/1V	220	260	1.5	1.3	1.4	1.2
MCP160808S3R3MT	3.3	20	1MHz/1V	500	600	1.4	1.2	1.0	0.9
MCP160808S4R7MT	4.7	20	1MHz/1V	585	700	1.2	1.0	1.0	0.8

MCP201208 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR (m Ω)		Isat(A)		Irms(A)	
				Typ.	Max.	Typ.	Max.	Typ.	Max.
MCP201208SR11MT	0.11	20	1MHz/1V	10	12	9.5	9.0	7.0	6.5
MCP201208SR24MT	0.24	20	1MHz/1V	18	23	6.5	6.0	6.5	5.9
MCP201208SR33MT	0.33	20	1MHz/1V	33	45	5.2	4.8	4.3	4.0
MCP201208SR47MT	0.47	20	1MHz/1V	24	28	5.2	4.8	4.7	4.5
MCP201208SR68MT	0.68	20	1MHz/1V	50	60	4.2	3.7	3.7	3.3
MCP201208S1R0MT	1.0	20	1MHz/1V	48	55	3.2	2.8	3.2	2.8
MCP201208S1R5MT	1.5	20	1MHz/1V	118	135	3.0	2.5	2.2	1.9
MCP201208S2R2MT	2.2	20	1MHz/1V	160	185	2.6	2.3	2.2	1.8
MCP201208S3R3MT	3.3	20	1MHz/1V	253	300	1.9	1.6	1.8	1.5
MCP201208S4R7MT	4.7	20	1MHz/1V	285	325	1.6	1.4	1.7	1.5

MCP201210 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR (m Ω)		Isat(A)		Irms(A)	
				Typ.	Max.	Typ.	Max.	Typ.	Max.
MCP201210SR10MT	0.10	20	1MHz/1V	8	13	8.5	8.0	7.5	7.0
MCP201210SR22MT	0.22	20	1MHz/1V	16	22	7.3	6.8	7.1	6.5
MCP201210SR24MT	0.24	20	1MHz/1V	17	23	7.2	6.7	7.0	6.4
MCP201210SR33MT	0.33	20	1MHz/1V	24	32	6.5	6.0	5.5	5.0
MCP201210SR47MT	0.47	20	1MHz/1V	29	36	5.5	5.0	4.7	4.3
MCP201210SR68MT	0.68	20	1MHz/1V	37	43	5.0	4.5	4.3	4.0

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR (m Ω)		Isat(A)		Irms(A)	
				Typ.	Max.	Typ.	Max.	Typ.	Max.
MCP201210S1R0MT	1.0	20	1MHz/1V	55	63	4.0	3.5	3.9	3.5
MCP201210S1R5MT	1.5	20	1MHz/1V	76	85	3.2	2.7	3.1	2.6
MCP201210S2R2MT	2.2	20	1MHz/1V	135	150	2.7	2.4	2.0	1.7
MCP201210S6R8MT	6.8	20	1MHz/1V	440	520	1.45	1.2	1.5	1.3
MCP201210S100MT	10	20	1MHz/1V	600	660	1.2	1.0	1.1	1.0

MCP201608 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR (m Ω)		Isat(A)		Irms(A)	
				Typ.	Max.	Typ.	Max.	Typ.	Max.
MCP201608SR22MT	0.22	20	1MHz/1V	14	19	6.1	5.6	6.6	5.9
MCP201608SR24MT	0.24	20	1MHz/1V	14	20	6.0	5.5	6.5	5.8
MCP201608SR33MT	0.33	20	1MHz/1V	18	24	5.8	5.3	5.5	4.8
MCP201608SR47MT	0.47	20	1MHz/1V	24	27	5.5	5.0	4.6	4.4
MCP201608SR68MT	0.68	20	1MHz/1V	39	44	4.6	4.2	3.8	3.5
MCP201608S1R0MT	1.0	20	1MHz/1V	53	60	3.3	3.1	3.6	3.3
MCP201608S1R5MT	1.5	20	1MHz/1V	73	85	3.0	2.8	3.1	2.8
MCP201608S2R2MT	2.2	20	1MHz/1V	123	140	2.5	2.3	2.2	2.0
MCP201608S3R3MT	3.3	20	1MHz/1V	200	220	2.1	1.8	1.8	1.5
MCP201608S4R7MT	4.7	20	1MHz/1V	260	290	1.7	1.5	1.6	1.4
MCP201608S100MT	10	20	1MHz/1V	690	800	1.0	0.9	1.0	0.9

MCP201610 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR (m Ω)		Isat(A)		Irms(A)	
				Typ.	Max.	Typ.	Max.	Typ.	Max.
MCP201610SR10MT	0.10	20	1MHz/1V	7	12	9.0	8.4	8.5	8.0
MCP201610SR15MT	0.15	20	1MHz/1V	8	14	8.7	8.0	7.6	7.0
MCP201610SR22MT	0.22	20	1MHz/1V	11	18	8.2	7.5	6.9	6.3
MCP201610SR24MT	0.24	20	1MHz/1V	12	19	8.0	7.4	6.8	6.2
MCP201610SR33MT	0.33	20	1MHz/1V	17	22	7.0	6.5	5.7	5.3
MCP201610SR47MT	0.47	20	1MHz/1V	22	25	6.3	5.5	5.5	5.0
MCP201610SR68MT	0.68	20	1MHz/1V	25	32	5.2	4.7	4.6	4.3
MCP201610S1R0MT	1.0	20	1MHz/1V	31	36	4.7	4.2	4.6	4.2
MCP201610S1R5MT	1.5	20	1MHz/1V	80	100	3.2	2.9	2.6	2.3
MCP201610S2R2MT	2.2	20	1MHz/1V	120	130	3.0	2.8	2.5	2.1
MCP201610S3R3MT	3.3	20	1MHz/1V	140	170	2.3	2.0	1.7	1.5
MCP201610S4R7MT	4.7	20	1MHz/1V	190	220	2.0	1.8	1.6	1.4
MCP201610S100MT	10	20	1MHz/1V	483	580	1.4	1.1	1.0	0.7

MCP252010 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR (m Ω)		Isat(A)		Irms(A)	
				Typ.	Max.	Typ.	Max.	Typ.	Max.
MCP252010SR22MT	0.22	20	1MHz/1V	12	17	8.60	7.90	6.80	6.50
MCP252010SR24MT	0.24	20	1MHz/1V	12	17.5	8.50	7.80	6.70	6.40
MCP252010SR33MT	0.33	20	1MHz/1V	13	19	7.60	7.20	6.50	6.20
MCP252010SR47MT	0.47	20	1MHz/1V	15	22	6.90	6.50	6.10	5.60
MCP252010SR68MT	0.68	20	1MHz/1V	23	27	5.90	5.50	5.60	5.00
MCP252010S1R0MT	1.0	20	1MHz/1V	25	30	5.30	4.80	4.50	4.10
MCP252010S1R5MT	1.5	20	1MHz/1V	45	55	4.30	3.90	3.40	3.00
MCP252010S2R2MT	2.2	20	1MHz/1V	62	70	3.30	3.00	2.40	2.10
MCP252010S3R3MT	3.3	20	1MHz/1V	86	100	2.80	2.50	2.50	2.10
MCP252010S4R7MT	4.7	20	1MHz/1V	160	180	2.60	2.00	2.00	1.60
MCP252010S6R8MT	6.8	20	1MHz/1V	270	320	2.40	1.90	1.60	1.40
MCP252010S100MT	10	20	1MHz/1V	500	560	1.55	1.40	1.05	0.95
MCP252010S220MT	22	20	1MHz/1V	1100	1300	1.10	0.90	0.85	0.60

MCP252012 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR (m Ω)		Isat(A)		Irms(A)	
				Typ.	Max.	Typ.	Max.	Typ.	Max.
MCP252012SR10MT	0.10	20	1MHz/1V	6	10	13.50	12.50	12.00	10.50
MCP252012SR15MT	0.15	20	1MHz/1V	7	11	13.00	12.00	11.50	10.00
MCP252012SR22MT	0.22	20	1MHz/1V	9	14	9.60	9.00	8.20	7.60
MCP252012SR24MT	0.24	20	1MHz/1V	10	15	9.30	8.80	8.00	7.50
MCP252012SR33MT	0.33	20	1MHz/1V	11	17	8.30	7.80	6.80	6.40
MCP252012SR47MT	0.47	20	1MHz/1V	11	13	8.50	8.00	8.00	7.50
MCP252012SR68MT	0.68	20	1MHz/1V	15	18	6.70	6.00	7.50	7.00
MCP252012SR82MT	0.82	20	1MHz/1V	19	24	6.50	5.80	5.80	5.30
MCP252012S1R0MT	1.0	20	1MHz/1V	16	22	6.50	6.00	5.20	4.50
MCP252012S1R2MT	1.2	20	1MHz/1V	40	45	4.50	4.10	3.80	3.40
MCP252012S1R5MT	1.5	20	1MHz/1V	27	32	4.70	4.40	4.60	4.20
MCP252012S2R2MT	2.2	20	1MHz/1V	55	65	3.80	3.30	3.00	2.70
MCP252012S3R3MT	3.3	20	1MHz/1V	80	97	3.00	2.70	2.30	1.80
MCP252012S4R7MT	4.7	20	1MHz/1V	150	170	2.40	2.10	1.80	1.50
MCP252012S6R8MT	6.8	20	1MHz/1V	245	270	2.00	1.70	1.60	1.40
MCP252012S100MT	10	20	1MHz/1V	330	400	1.60	1.45	1.20	1.05

MCP322510 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR (m Ω)		Isat(A)		Irms(A)	
				Typ.	Max.	Typ.	Max.	Typ.	Max.
MCP322510SR33MT	0.33	20	1MHz/1V	11	15	8.3	7.8	8.3	7.8
MCP322510SR47MT	0.47	20	1MHz/1V	17	22	8.3	7.6	6.4	5.9
MCP322510SR68MT	0.68	20	1MHz/1V	22	28	7.5	7.0	6.2	5.7
MCP322510S1R0MT	1.0	20	1MHz/1V	25	30	6.0	5.3	5.4	4.9
MCP322510S1R5MT	1.5	20	1MHz/1V	34	42	5.0	4.4	4.0	3.6
MCP322510S2R2MT	2.2	20	1MHz/1V	55	66	4.0	3.5	3.7	3.4
MCP322510S3R3MT	3.3	20	1MHz/1V	105	120	3.7	3.3	2.7	2.3
MCP322510S4R7MT	4.7	20	1MHz/1V	125	140	2.8	2.5	2.3	1.9
MCP322510S6R8MT	6.8	20	1MHz/1V	290	320	2.4	2.0	1.9	1.6
MCP322510S100MT	10	20	1MHz/1V	325	365	2.2	1.8	2.2	1.8

MCP322512 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR (m Ω)		Isat(A)		Irms(A)	
				Typ.	Max.	Typ.	Max.	Typ.	Max.
MCP322512SR10MT	0.10	20	1MHz/1V	5.2	7	18.0	16.5	12.0	11.0
MCP322512SR22MT	0.22	20	1MHz/1V	6.6	10	11.5	11.0	9.2	8.7
MCP322512SR24MT	0.24	20	1MHz/1V	7	12	11.0	10.5	9.0	8.5
MCP322512SR33MT	0.33	20	1MHz/1V	9	14	10.0	9.5	8.4	8.1
MCP322512SR47MT	0.47	20	1MHz/1V	14	19	8.6	8.2	7.5	7.2
MCP322512SR68MT	0.68	20	1MHz/1V	12	15	8.0	7.5	7.0	6.5
MCP322512S1R0MT	1.0	20	1MHz/1V	26	30	6.6	5.8	5.3	4.8
MCP322512S1R5MT	1.5	20	1MHz/1V	37	44	5.1	4.7	4.7	4.3
MCP322512S2R2MT	2.2	20	1MHz/1V	42	50	5.0	4.5	4.2	3.7
MCP322512S3R3MT	3.3	20	1MHz/1V	75	95	3.7	3.2	2.9	2.5
MCP322512S4R7MT	4.7	20	1MHz/1V	115	135	2.9	2.6	2.3	2.0
MCP322512S6R8MT	6.8	20	1MHz/1V	177	210	2.8	2.4	2.1	1.9
MCP322512S100MT	10	20	1MHz/1V	210	230	2.3	1.9	2.2	1.8

MCP322520 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR (m Ω)		Isat(A)		Irms(A)	
				Typ.	Max.	Typ.	Max.	Typ.	Max.
MCP322520SR33MT	0.33	20	1MHz/1V	7.5	9	15.5	14.0	9.5	9.0
MCP322520SR47MT	0.47	20	1MHz/1V	9	10.5	15.0	13.0	9.5	8.5
MCP322520SR68MT	0.68	20	1MHz/1V	12.5	14.5	13.0	11.0	9.0	8.0
MCP322520S1R0MT	1.0	20	1MHz/1V	15	17.5	9.0	8.3	8.2	7.5
MCP322520S1R5MT	1.5	20	1MHz/1V	22	25	6.8	6.0	6.5	6.0
MCP322520S2R2MT	2.2	20	1MHz/1V	36	43	6.5	5.5	5.4	4.8
MCP322520S3R3MT	3.3	20	1MHz/1V	55	60	4.5	3.5	4.5	4.0
MCP322520S4R7MT	4.7	20	1MHz/1V	81	94	4.0	3.0	3.5	3.0

MCP303012 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR (m Ω)		Isat(A)		Irms(A)	
				Typ.	Max.	Typ.	Max.	Typ.	Max.
MCP303012S100MT	10	20	1MHz/1V	192	220	2.3	2.0	2.3	1.9
MCP303012S150MT	15	20	1MHz/1V	345	380	1.9	1.6	1.6	1.3

MCP303018 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR (m Ω)		Isat(A)		Irms(A)	
				Typ.	Max.	Typ.	Max.	Typ.	Max.
MCP303018SR22MT	0.22	20	1MHz/1V	5.5	7	17.0	16.0	10.0	9.0
MCP303018S1R5MT	1.5	20	1MHz/1V	20	26	8.0	7.0	6.8	6.4
MCP303018S4R7MT	4.7	20	1MHz/1V	72	87	4.7	4.2	3.4	3.0

MCP303020 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR (m Ω)		Isat(A)		Irms(A)	
				Typ.	Max.	Typ.	Max.	Typ.	Max.
MCP303020SR33MT	0.33	20	1MHz/1V	7.5	9	17.0	15.0	10.0	9.0
MCP303020SR50MT	0.5	20	1MHz/1V	9	12	15.0	13.0	9.0	8.0
MCP303020SR68MT	0.68	20	1MHz/1V	13	16	13.0	11.0	8.5	7.8
MCP303020S1R0MT	1.0	20	1MHz/1V	14	20	8.0	7.3	6.5	6.0
MCP303020S1R5MT	1.5	20	1MHz/1V	19	25	7.0	6.5	6.3	5.8
MCP303020S2R2MT	2.2	20	1MHz/1V	37	45	6.0	5.5	4.7	4.3
MCP303020S3R3MT	3.3	20	1MHz/1V	52	63	5.9	5.4	4.5	4.0
MCP303020S4R7MT	4.7	20	1MHz/1V	60	73	4.8	4.0	4.2	3.8
MCP303020S6R8MT	6.8	20	1MHz/1V	107	135	4.5	3.8	3.2	3.0
MCP303020S100MT	10	20	1MHz/1V	135	160	3.8	3.3	2.5	2.2

MCP404010 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR (m Ω)		Isat(A)		Irms(A)	
				Typ.	Max.	Typ.	Max.	Typ.	Max.
MCP404010S100MT	10	20	1MHz/1V	220	280	2.2	2.0	2.5	2.0

MCP404012 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR (m Ω)		Isat(A)		Irms(A)	
				Typ.	Max.	Typ.	Max.	Typ.	Max.
MCP404012SR47MT	0.47	20	1MHz/1V	11.5	14	12.0	11.5	9.0	8.5
MCP404012S1R0MT	1.0	20	1MHz/1V	21	25	11.0	10.0	6.3	5.5
MCP404012S1R5MT	1.5	20	1MHz/1V	29	34.5	8.0	7.0	6.0	5.0
MCP404012S2R2MT	2.2	20	1MHz/1V	45	55	6.5	6.0	5.0	4.5
MCP404012S3R3MT	3.3	20	1MHz/1V	67	80	5.5	5.0	4.5	4.0
MCP404012S4R7MT	4.7	20	1MHz/1V	90	110	5.0	4.5	3.5	3.0
MCP404012S5R6MT	5.6	20	1MHz/1V	116	140	4.5	4.0	3.0	2.5
MCP404012S6R8MT	6.8	20	1MHz/1V	132	160	3.8	3.5	2.8	2.3
MCP404012S100MT	10	20	1MHz/1V	200	235	2.8	2.5	2.5	2.0

MCP404020 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR (m Ω)		Isat(A)		Irms(A)	
				Typ.	Max.	Typ.	Max.	Typ.	Max.
MCP404020SR33MT	0.33	20	1MHz/1V	5	6	18.0	17.0	9.5	8.5
MCP404020SR47MT	0.47	20	1MHz/1V	7	8.5	16.0	15.0	8.5	8.0
MCP404020S1R0MT	1.0	20	1MHz/1V	12	14.5	12.5	11.5	6.5	6.0
MCP404020S1R5MT	1.5	20	1MHz/1V	18	22	10.5	9.5	6.0	5.5
MCP404020S2R2MT	2.2	20	1MHz/1V	30	36	9.5	8.5	6.5	6.0
MCP404020S4R7MT	4.7	20	1MHz/1V	47	58	6.3	5.5	5.0	4.0
MCP404020S100MT	10	20	1MHz/1V	113	135	4.9	4.0	3.7	3.0
MCP404020S150MT	15	20	1MHz/1V	210	250	3.5	3.0	2.3	1.7
MCP404020S220MT	22	20	1MHz/1V	275	330	2.9	2.3	1.8	1.3

MCP404030 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR (m Ω)		Isat(A)		Irms(A)	
				Typ.	Max.	Typ.	Max.	Typ.	Max.
MCP404030SR68MT	0.68	20	1MHz/1V	8.3	10	17.0	15.0	9.5	8.0
MCP404030S1R5MT	1.5	20	1MHz/1V	15	18	12.5	11.0	6.5	6.0
MCP404030S4R7MT	4.7	20	1MHz/1V	41	46	7.0	6.0	4.3	4.0
MCP404030S6R8MT	6.8	20	1MHz/1V	51	62	6.3	5.1	4.2	3.8
MCP404030S100MT	10	20	1MHz/1V	92	110	4.9	4.5	3.7	3.3

Note:

Rated current: Isat or Irms, whichever is smaller.

Isat: DC current at which the inductance drops approximate 30% from its value without current.

Irms: DC current that causes the temperature rise($\Delta T=40^{\circ}C$) from $25^{\circ}C$ ambient.

Absolute maximum voltage: DC 20V.