

## CUSTOMER INFORMATION

### MPI4040-R Family Table

Part Number	Rated Inductance ( $\mu$ H) @ 25°C	OCL nominal ( $\mu$ H) ( $\pm 15\%$ ) @ 25°C	Part Marking Designator	$I_{RMS}$ Amperes (note 2)	$I_{sat}$ Amperes (note 3)	DCR (m $\Omega$ ) ( $\pm 15\%$ ) @ 20°C	K-factor (note 5)
MPI4040R1-R10-R	0.10	0.09	A	7.4	32	8.5	2372
MPI4040R1-R15-R	0.15	0.15	B	6.5	26	11	1694
MPI4040R1-R22-R	0.22	0.23	C	5.1	21	18	1318
MPI4040R1-R33-R	0.33	0.33	D	4.08	17	28	1130
MPI4040R1-R47-R	0.47	0.47	E	3.75	11	35	912
MPI4040R1-R68-R	0.68	0.68	F	3.1	9	51	790
MPI4040R2-R47-R	0.47	0.47	G	4.3	13.0	28	912
MPI4040R2-1R0-R	1.0	1.0	H	3.8	2.25	38	760
MPI4040R2-1R5-R	1.5	1.5	I	2.75	1.80	60	600
MPI4040R2-2R2-R	2.2	2.2	J	2.3	1.50	82	506
MPI4040R2-3R3-R	3.3	3.3	K	1.96	1.25	113	430
MPI4040R2-4R7-R	4.7	4.5	L	1.6	1.10	175	368
MPI4040R3-R22-R	0.22	0.22	M	8.0	20.0	6.4	1318
MPI4040R3-R47-R	0.47	0.47	N	5.8	17.0	10.3	912
MPI4040R3-1R2-R	1.2	1.2	O	3.8	9.4	32	700
MPI4040R3-1R5-R	1.5	1.5	P	4.0	8.2	36	600
MPI4040R3-2R2-R	2.2	2.2	Q	3.4	7.9	48	506
MPI4040R3-3R3-R	3.3	3.3	R	3.0	6.6	60	430
MPI4040R3-4R7-R	4.7	4.7	S	2.3	4.8	92	350
MPI4040R3-6R8-R	6.8	6.8	T	2.0	4.5	120	290
MPI4040R3-100-R	10	10	U	1.5	3.8	213	240
MPI4040R3-150-R	15	15	V	1.3	3.0	285	200
MPI4040R3-220-R	22	22	W	1.1	2.2	408	160

**Electrical Requirement Notes:** 1) Test Parameters: 100kHz, 0.10Vrms      2) DCR @ 20°C

**Notes:**

1) Units supplied in tape and reel packaging. Meets EIA-481 standard. 13" reel: 5500 parts (R1) per reel  
4500 parts (R2) per reel  
3500 parts (R3) per reel

2) Irms: DC current for an approximate  $\Delta T$  of 40°C without core loss

3) Isat : Amperes peak for 30% roll off (@ 25°C) .

4) K-factor: used to determine Bp-p for core loss (see graph).  $Bp-p = K * L * \Delta I$ . Bp-p:(Gauss), K: (K-factor from table), L: (Inductance in  $\mu$ H),  $\Delta I$  (Peak to peak ripple current in Amps).

This document subject to change without notice.

### Cooper Bussmann

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Low Power Inductor

SMT 2 Pads

Family Specification

SIZE	Drawing Number:	<b>MPI4040-R</b>	
A	Revision Level:	C	