

## SMD POWER INDUCTORS / ASPI Series

### • Features

1. Magnetic Shielded surface mount inductor with high current rating.
2. Low resistance to keep power loss minimum.

### • Applications

Excellent for power line DC-DC conversion applications used in hard disk, notebook computers and other electronic equipment.



### • Shape & Dimensions

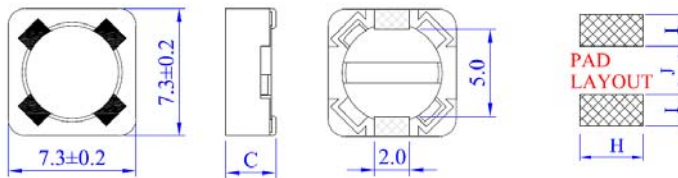


Fig.1

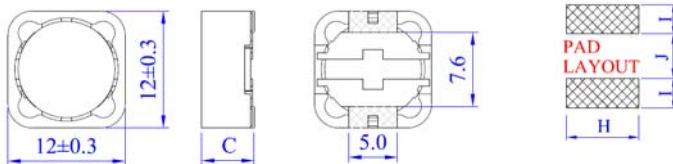
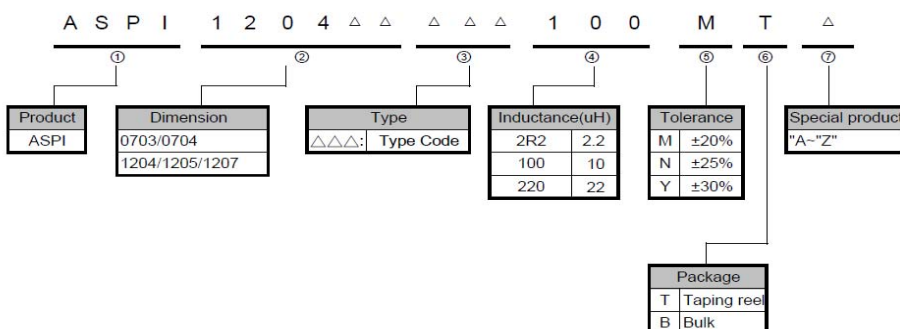


Fig.2

TYPE	Figure	C (mm)	H (Ref.)	I (Ref.)	J (Ref.)
ASPI0703	1	3.5 MAX.	2.2	1.6	4.8
ASPI0704	1	4.5 MAX.	2.2	1.6	4.8
ASPI1204	2	4.5 MAX.	5.4	2.9	7.0
ASPI1205	2	6.0 MAX.	5.4	2.9	7.0
ASPI1207	2	8.0 MAX.	5.4	2.9	7.0

#### ■ PRODUCT IDENTIFICATION



## ◆ ASPI0703 Series Specification :

Part Number	Inductance ( $\mu$ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ( $m\Omega$ ) Max.	Saturation Current (A) Max.
ASPI0703100□T	10	M,N	100	72	1.68
ASPI0703120□T	12	M,N	100	98	1.52
ASPI0703150□T	15	M,N	100	130	1.33
ASPI0703180□T	18	M,N	100	140	1.20
ASPI0703220□T	22	M,N	100	190	1.07
ASPI0703270□T	27	M,N	100	210	0.96
ASPI0703330□T	33	M,N	100	240	0.91
ASPI0703390□T	39	M,N	100	320	0.77
ASPI0703470□T	47	M,N	100	360	0.76
ASPI0703560□T	56	M,N	100	470	0.68
ASPI0703680□T	68	M,N	100	520	0.61
ASPI0703820□T	82	M,N	100	690	0.57
ASPI0703101□T	100	M,N	100	685	0.79
ASPI0703121□T	120	M,N	100	890	0.49
ASPI0703151□T	150	M,N	100	1270	0.43
ASPI0703181□T	180	M,N	100	1450	0.39
ASPI0703221□T	220	M,N	100	1650	0.35
ASPI0703271□T	270	M,N	100	2310	0.32
ASPI0703331□T	330	M,N	100	2620	0.28
ASPI0703391□T	390	M,N	100	2940	0.26
ASPI0703471□T	470	M,N	100	4180	0.24
ASPI0703561□T	560	M,N	100	4670	0.22
ASPI0703681□T	680	M,N	100	5730	0.19
ASPI0703821□T	820	M,N	100	6540	0.18
ASPI0703102□T	1000	M,N	100	9440	0.18

### NOTE :

\* The operating temperature range is  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  (Including self-temperature rise)

\* □ Tolerance M :  $\pm 20\%$  , N :  $\pm 25\%$  , Y:  $\pm 30\%$

\*Isat:For Inductance drop 35% from its value without current.

## ◆ ASPI0704 Series Specification :

Part Number	Inductance ( $\mu$ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ( $m\Omega$ ) Max.	Saturation Current (A) Max.
ASPI0704100□T	10	M,N	100	67	3.50
ASPI0704120□T	12	M,N	100	58	1.71
ASPI0704150□T	15	M,N	100	81	1.47
ASPI0704180□T	18	M,N	100	91	1.31
ASPI0704220□T	22	M,N	100	110	1.23
ASPI0704270□T	27	M,N	100	150	1.12
ASPI0704330□T	33	M,N	100	265	1.70
ASPI0704390□T	39	M,N	1.0	215	1.80
ASPI0704470□T	47	M,N	1.0	280	1.55
ASPI0704560□T	56	M,N	100	350	0.75
ASPI0704680□T	68	M,N	100	380	0.69
ASPI0704820□T	82	M,N	100	430	0.61
ASPI0704101□T	100	M,N	100	590	1.18
ASPI0704121□T	120	M,N	100	660	0.52
ASPI0704151□T	150	M,N	100	880	0.46
ASPI0704181□T	180	M,N	100	1030	0.86
ASPI0704221□T	220	M,N	100	1170	0.36
ASPI0704271□T	270	M,N	100	1640	0.34
ASPI0704331□T	330	M,N	100	1860	0.32
ASPI0704391□T	390	M,N	100	2850	0.29
ASPI0704471□T	470	M,N	100	3010	0.26
ASPI0704561□T	560	M,N	100	3620	0.23
ASPI0704681□T	680	M,N	100	4630	0.22
ASPI0704821□T	820	M,N	100	5200	0.20
ASPI0704102□T	1000	M,N	100	6000	0.18

### NOTE :

\* The operating temperature range is  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  (Including self-temperature rise)

\* □ Tolerance M :  $\pm 20\%$  , N :  $\pm 25\%$  , Y:  $\pm 30\%$

\*Isat:For Inductance drop 35% from its value without current.

## ◆ASPI1204 Series Specification :

Part Number	Inductance ( $\mu$ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ( $m\Omega$ ) Max.	Saturation Current (A) Max.
ASPI12043R9□T	3.9	Y	100	15	6.50
ASPI12044R7□T	4.7	Y	100	18	5.70
ASPI12046R8□T	6.8	M,N	100	23	4.90
ASPI12048R2□T	8.2	M,N	100	26	4.60
ASPI1204100□T	10	M,N	100	45	4.50
ASPI1204120□T	12	M,N	100	38	4.00
ASPI1204150□T	15	M,N	100	50	3.20
ASPI1204180□T	18	M,N	100	57	3.10
ASPI1204220□T	22	M,N	100	66	2.90
ASPI1204270□T	27	M,N	100	80	2.80
ASPI1204330□T	33	M,N	100	97	2.70
ASPI1204390□T	39	M,N	100	132	2.10
ASPI1204470□T	47	M,N	100	150	1.90
ASPI1204560□T	56	M,N	100	190	1.80
ASPI1204680□T	68	M,N	100	220	1.50
ASPI1204820□T	82	M,N	100	260	1.30
ASPI1204101□T	100	M,N	100	308	1.20
ASPI1204121□T	120	M,N	100	380	1.10
ASPI1204151□T	150	M,N	100	530	0.95
ASPI1204181□T	180	M,N	100	620	0.85
ASPI1204221□T	220	M,N	100	700	0.80
ASPI1204271□T	270	M,N	100	870	0.60
ASPI1204331□T	330	M,N	100	990	0.50

### NOTE :

\* The operating temperature range is  $-40^{\circ}\text{C}$  to  $+105^{\circ}\text{C}$  (Including self-temperature rise)

\* □ Tolerance M :  $\pm 20\%$  , N :  $\pm 25\%$  , Y:  $\pm 30\%$

\* Isat: For Inductance drop 25% from its value without current.

## ◆ ASPI1205 Series Specification :

Part Number	Inductance ( $\mu$ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ( $m\Omega$ ) Max.	Saturation Current (A) Max.
ASPI12051R3□T	1.3	Y	100	12	8.00
ASPI12052R1□T	2.1	Y	100	14	7.00
ASPI12053R1□T	3.1	Y	100	17	6.00
ASPI12054R4□T	4.4	Y	100	20	5.00
ASPI12055R8□T	5.8	M,N	100	21	4.40
ASPI12057R5□T	7.5	M,N	100	24	4.20
ASPI1205100□T	10	M,N	100	25	4.00
ASPI1205120□T	12	M,N	100	27	3.50
ASPI1205150□T	15	M,N	100	30	3.30
ASPI1205180□T	18	M,N	100	34	3.00
ASPI1205220□T	22	M,N	100	36	2.80
ASPI1205270□T	27	M,N	100	51	2.30
ASPI1205330□T	33	M,N	100	57	2.10
ASPI1205390□T	39	M,N	100	68	2.00
ASPI1205470□T	47	M,N	100	75	1.80
ASPI1205560□T	56	M,N	100	110	1.70
ASPI1205680□T	68	M,N	100	120	1.50
ASPI1205820□T	82	M,N	100	140	1.40
ASPI1205101□T	100	M,N	100	160	1.30
ASPI1205121□T	120	M,N	100	170	1.10
ASPI1205151□T	150	M,N	100	230	1.00
ASPI1205181□T	180	M,N	100	290	0.90
ASPI1205221□T	220	M,N	100	400	0.80
ASPI1205271□T	270	M,N	100	460	0.75
ASPI1205331□T	330	M,N	100	510	0.68
ASPI1205391□T	390	M,N	100	690	0.65
ASPI1205471□T	470	M,N	100	770	0.58
ASPI1205561□T	560	M,N	100	860	0.54
ASPI1205681□T	680	M,N	100	1200	0.48
ASPI1205821□T	820	M,N	100	1340	0.43
ASPI1205102□T	1000	M,N	100	1530	0.40

### NOTE :

\* The operating temperature range is  $-40^{\circ}\text{C}$  to  $+105^{\circ}\text{C}$  (Including self-temperature rise)

\* □ Tolerance M :  $\pm 20\%$  , N :  $\pm 25\%$  , Y:  $\pm 30\%$

\*Isat:For Inductance drop 25% from its value without current.

## ◆ ASPI1207 Series Specification :

Part Number	Inductance ( $\mu$ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ( $m\Omega$ ) Max.	Saturation Current (A) Max.
ASPI12071R2□T	1.2	Y	100	7	9.80
ASPI12072R4□T	2.4	Y	100	12	8.00
ASPI12073R5□T	3.5	Y	100	14	7.50
ASPI12074R7□T	4.7	Y	100	16	6.80
ASPI12076R1□T	6.1	M,N	100	18	6.60
ASPI12077R6□T	7.6	M,N	100	20	5.90
ASPI1207100□T	10	M,N	100	22	5.40
ASPI1207120□T	12	M,N	100	25	4.90
ASPI1207150□T	15	M,N	100	27	4.50
ASPI1207180□T	18	M,N	100	40	3.90
ASPI1207220□T	22	M,N	100	44	3.60
ASPI1207270□T	27	M,N	100	46	3.40
ASPI1207330□T	33	M,N	100	65	3.00
ASPI1207390□T	39	M,N	100	73	2.75
ASPI1207470□T	47	M,N	100	100	2.50
ASPI1207560□T	56	M,N	100	110	2.35
ASPI1207680□T	68	M,N	100	140	2.10
ASPI1207820□T	82	M,N	100	160	1.95
ASPI1207101□T	100	M,N	100	220	1.70
ASPI1207121□T	120	M,N	100	250	1.60
ASPI1207151□T	150	M,N	100	280	1.42
ASPI1207181□T	180	M,N	100	350	1.30
ASPI1207221□T	220	M,N	100	390	1.16
ASPI1207271□T	270	M,N	100	560	1.06
ASPI1207331□T	330	M,N	100	640	0.95
ASPI1207391□T	390	M,N	100	700	0.88
ASPI1207471□T	470	M,N	100	980	0.79
ASPI1207561□T	560	M,N	100	1070	0.73
ASPI1207681□T	680	M,N	100	1460	0.67
ASPI1207821□T	820	M,N	100	1640	0.60
ASPI1207102□T	1000	M,N	100	1820	0.55

### NOTE :

\* The operating temperature range is  $-40^{\circ}\text{C}$  to  $+105^{\circ}\text{C}$  (Including self-temperature rise)

\* □ Tolerance M :  $\pm 20\%$  , N :  $\pm 25\%$  , Y:  $\pm 30\%$

\*Isat:For Inductance drop 25% from its value without current.