

SMD Power Inductors / AGPI Series

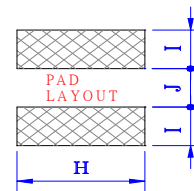
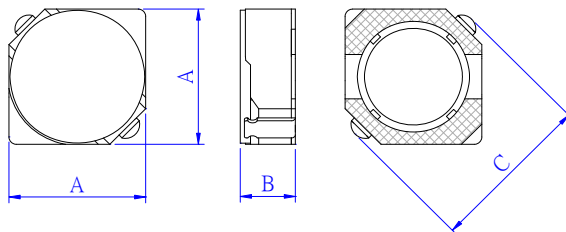
Features

- To be high saturation for surface mounting.
- Surface mounts inductor with high current rating.
- Low resistance to keep power loss minimum.
- Packed in embossed carrier tape and can be used by automatic mounting machine.

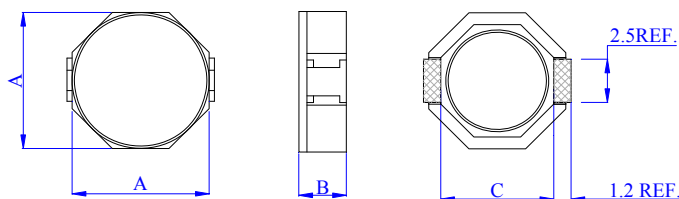
Applications

- LCD driving circuits (DC-DC converters) such as notebook-sized personal computers, portable terminal equipment, game units.

● Shape & Dimensions



TYPE	A (mm)	B (mm)	C (mm)	H (Ref.)	I (Ref.)	J (Ref.)
AGPI3D16	4.0 MAX.	2.0 MAX.	5.2 MAX.	4.6	1.65	1.0
AGPI4D18	4.7 ± 0.3	2.0 MAX.	6.9 MAX.	5.3	1.90	1.5
AGPI4D28	4.7 ± 0.3	3.0 MAX.	6.9 MAX.	5.3	1.90	1.5
AGPI5D18	5.7 ± 0.3	2.0 MAX.	8.2 MAX.	6.3	2.15	2.0
AGPI5D28	5.7 ± 0.3	3.0 MAX.	8.2 MAX.	6.3	2.15	2.0
AGPI6D28	6.7 ± 0.3	3.0 MAX.	9.5 MAX.	7.3	2.65	2.0
AGPI6D38	6.7 ± 0.3	4.0 MAX.	9.5 MAX.	7.3	2.65	2.0



TYPE	A (mm)	B (mm)	C (mm)	H (Ref.)	I (Ref.)	J (Ref.)
AGPI8D43	8.3 MAX.	4.5 MAX.	6.3 REF.	2.8	2.00	6.1



SMD Power Inductors / AGPI Series

Features

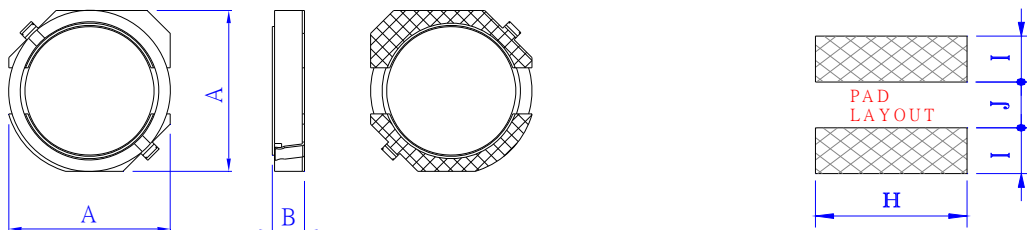
- To be high saturation for surface mounting.
- Surface mounts inductor with high current rating.
- Low resistance to keep power loss minimum.
- Packed in embossed carrier tape and can be used by automatic mounting machine.

Applications

- LCD driving circuits (DC-DC converters) such as notebook-sized personal computers, portable terminal equipment, game units.

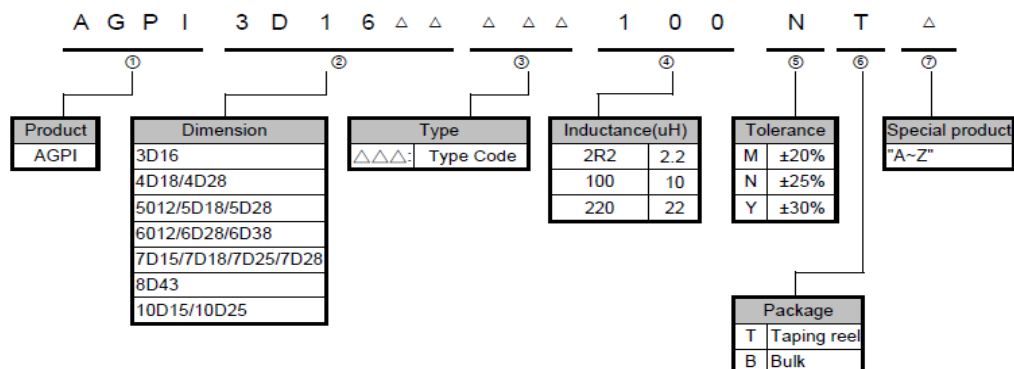


• Shape & Dimensions



TYPE	A (mm)	B (mm)	H (Ref.)	I (Ref.)	J (Ref.)
AGPI5012	5.3 MAX.	1.1±0.1	5.5	2.00	1.5
AGPI6012	6.0 ± 0.3	1.1±0.1	6.5	2.25	2.0
AGPI7D15	7.0 ± 0.3	1.5 MAX.	7.4	2.75	1.9
AGPI7D18	7.0 ± 0.3	1.8 MAX.	7.4	2.75	1.9
AGPI7D25	7.0 ± 0.3	2.5 MAX.	7.4	2.75	1.9
AGPI7D28	7.0 ± 0.3	2.8 MAX.	7.4	2.75	1.9
AGPI10D15	10.4 MAX.	1.5 MAX.	10.5	3.75	3.00
AGPI10D25	10.4 MAX.	2.5 MAX.	10.5	3.75	3.00

■ PRODUCT IDENTIFICATION



◆ AGPI3D16 Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ($m\Omega$) Max.	Saturation Current (A) Max.
AGPI3D161R5□T	1.5	Y	100	52	1.55
AGPI3D162R2□T	2.2	Y	100	72	1.20
AGPI3D163R3□T	3.3	Y	100	85	1.10
AGPI3D164R7□T	4.7	Y	100	105	0.90
AGPI3D166R8□T	6.8	M,N	100	170	0.73
AGPI3D16100□T	10	M,N	100	210	0.55
AGPI3D16150□T	15	M,N	100	295	0.45
AGPI3D16220□T	22	M,N	100	430	0.40
AGPI3D16330□T	33	M,N	100	675	0.32

NOTE :

* The operating temperature range is -40°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.

◆ AGPI4D18 Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ($m\Omega$) Max.	Saturation Current (A) Max.
AGPI4D181R0□T	1.0	Y	100	45	1.72
AGPI4D182R2□T	2.2	Y	100	75	1.32
AGPI4D182R7□T	2.7	Y	100	105	1.28
AGPI4D183R3□T	3.3	Y	100	110	1.04
AGPI4D183R9□T	3.9	Y	100	155	0.88
AGPI4D184R7□T	4.7	Y	100	162	0.84
AGPI4D185R6□T	5.6	M,N	100	170	0.80
AGPI4D186R8□T	6.8	M,N	100	180	0.76
AGPI4D188R2□T	8.2	M,N	100	190	0.68
AGPI4D18100□T	10	M,N	100	200	0.61
AGPI4D18120□T	12	M,N	100	210	0.56
AGPI4D18150□T	15	M,N	100	240	0.50
AGPI4D18180□T	18	M,N	100	338	0.48
AGPI4D18220□T	22	M,N	100	397	0.41
AGPI4D18270□T	27	M,N	100	441	0.35
AGPI4D18330□T	33	M,N	100	694	0.32
AGPI4D18390□T	39	M,N	100	709	0.30

NOTE :

* The operating temperature range is -40°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.

◆ AGPI4D28 Series Specification :

Part Number	Inductance (uH)	Inductance Tolerance	Test Freq. (KHz)	DCR (mΩ) Max.	Saturation Current (A) Max.
AGPI4D281R2□T	1.2	Y	100	24	2.56
AGPI4D281R8□T	1.8	Y	100	28	2.20
AGPI4D282R2□T	2.2	Y	100	31	2.04
AGPI4D282R7□T	2.7	Y	100	43	1.60
AGPI4D283R3□T	3.3	Y	100	49	1.57
AGPI4D283R9□T	3.9	Y	100	65	1.44
AGPI4D284R7□T	4.7	Y	100	72	1.32
AGPI4D285R6□T	5.6	M,N	100	101	1.17
AGPI4D286R8□T	6.8	M,N	100	109	1.12
AGPI4D288R2□T	8.2	M,N	100	117	1.04
AGPI4D28100□T	10	M,N	100	128	1.00
AGPI4D28120□T	12	M,N	100	132	0.84
AGPI4D28150□T	15	M,N	100	149	0.76
AGPI4D28180□T	18	M,N	100	166	0.72
AGPI4D28220□T	22	M,N	100	235	0.70
AGPI4D28270□T	27	M,N	100	261	0.58
AGPI4D28330□T	33	M,N	100	331	0.56
AGPI4D28390□T	39	M,N	100	384	0.50
AGPI4D28470□T	47	M,N	100	587	0.48
AGPI4D28560□T	56	M,N	100	624	0.41
AGPI4D28680□T	68	M,N	100	699	0.35
AGPI4D28820□T	82	M,N	100	915	0.32
AGPI4D28101□T	100	M,N	100	1020	0.29
AGPI4D28121□T	120	M,N	100	1270	0.27
AGPI4D28151□T	150	M,N	100	1350	0.24
AGPI4D28181□T	180	M,N	100	1540	0.22

NOTE :

* The operating temperature range is -40℃ to +125℃ (Including self-temperature rise).

* □ Tolerance M : ±20% , N : ±25% , Y : ±30%

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

◆ AGPI5D18 Series Specification :

Part Number	Inductance (uH)	Inductance Tolerance	Test Freq. (KHz)	DCR (mΩ) Max.	Saturation Current (A) Max.
AGPI5D184R1□T	4.1	Y	100	57	1.95
AGPI5D185R4□T	5.4	M,N	100	76	1.60
AGPI5D186R2□T	6.2	M,N	100	96	1.40
AGPI5D188R9□T	8.9	M,N	100	116	1.25
AGPI5D18100□T	10	M,N	100	124	1.20
AGPI5D18120□T	12	M,N	100	153	1.10
AGPI5D18150□T	15	M,N	100	196	0.97
AGPI5D18180□T	18	M,N	100	210	0.85
AGPI5D18220□T	22	M,N	100	290	0.80
AGPI5D18270□T	27	M,N	100	330	0.75
AGPI5D18330□T	33	M,N	100	385	0.65
AGPI5D18390□T	39	M,N	100	520	0.57
AGPI5D18470□T	47	M,N	100	595	0.54
AGPI5D18560□T	56	M,N	100	665	0.50
AGPI5D18680□T	68	M,N	100	840	0.43
AGPI5D18820□T	82	M,N	100	978	0.41
AGPI5D18101□T	100	M,N	100	1200	0.36

NOTE :

* The operating temperature range is -40℃ to +125℃ (Including self-temperature rise).

* □ Tolerance M : ±20% , N : ±25% , Y : ±30%

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

◆ AGPI5D28 Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ($m\Omega$) Max.	Saturation Current (A) Max.
AGPI5D282R5□T	2.5	Y	100	18	2.60
AGPI5D283R0□T	3.0	Y	100	24	2.40
AGPI5D284R2□T	4.2	Y	100	31	2.20
AGPI5D285R3□T	5.3	M,N	100	38	1.90
AGPI5D286R2□T	6.2	M,N	100	45	1.80
AGPI5D288R2□T	8.2	M,N	100	53	1.60
AGPI5D28100□T	10	M,N	100	65	1.30
AGPI5D28120□T	12	M,N	100	76	1.20
AGPI5D28150□T	15	M,N	100	103	1.10
AGPI5D28180□T	18	M,N	100	110	1.00
AGPI5D28220□T	22	M,N	100	122	0.90
AGPI5D28270□T	27	M,N	100	175	0.85
AGPI5D28330□T	33	M,N	100	189	0.75
AGPI5D28390□T	39	M,N	100	212	0.70
AGPI5D28470□T	47	M,N	100	250	0.62
AGPI5D28560□T	56	M,N	100	305	0.58
AGPI5D28680□T	68	M,N	100	355	0.52
AGPI5D28820□T	82	M,N	100	463	0.46
AGPI5D28101□T	100	M,N	100	520	0.42

NOTE :

* The operating temperature range is -40°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.

◆ AGPI6D28 Series Specification :

Part Number	Inductance (uH)	Inductance Tolerance	Test Freq. (KHz)	DCR (mΩ) Max.	Saturation Current (A) Max.
AGPI6D283R0□T	3.0	Y	100	24	3.00
AGPI6D283R9□T	3.9	Y	100	27	2.60
AGPI6D285R0□T	5.0	M,N	100	31	2.40
AGPI6D286R0□T	6.0	M,N	100	35	2.25
AGPI6D287R3□T	7.3	M,N	100	54	2.10
AGPI6D288R6□T	8.6	M,N	100	58	1.85
AGPI6D28100□T	10	M,N	100	65	1.70
AGPI6D28120□T	12	M,N	100	70	1.55
AGPI6D28150□T	15	M,N	100	84	1.40
AGPI6D28180□T	18	M,N	100	95	1.32
AGPI6D28220□T	22	M,N	100	128	1.20
AGPI6D28270□T	27	M,N	100	142	1.05
AGPI6D28330□T	33	M,N	100	165	0.97
AGPI6D28390□T	39	M,N	100	210	0.86
AGPI6D28470□T	47	M,N	100	238	0.80
AGPI6D28560□T	56	M,N	100	277	0.73
AGPI6D28680□T	68	M,N	100	304	0.65
AGPI6D28820□T	82	M,N	100	390	0.60
AGPI6D28101□T	100	M,N	100	535	0.54

NOTE :

* The operating temperature range is -40℃ to +125℃ (Including self-temperature rise).

* □ Tolerance M : ±20% , N : ±25% , Y : ±30%

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

◆ AGPI6D38 Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ($m\Omega$) Max.	Saturation Current (A) Max.
AGPI6D383R3□T	3.3	Y	100	20	3.50
AGPI6D385R0□T	5.0	M,N	100	24	2.90
AGPI6D386R2□T	6.2	M,N	100	27	2.50
AGPI6D387R4□T	7.4	M,N	100	31	2.30
AGPI6D388R7□T	8.7	M,N	100	34	2.20
AGPI6D38100□T	10	M,N	100	38	2.00
AGPI6D38120□T	12	M,N	100	53	1.70
AGPI6D38150□T	15	M,N	100	57	1.60
AGPI6D38180□T	18	M,N	100	92	1.50
AGPI6D38220□T	22	M,N	100	96	1.30
AGPI6D38270□T	27	M,N	100	109	1.20
AGPI6D38330□T	33	M,N	100	124	1.10
AGPI6D38390□T	39	M,N	100	138	1.00
AGPI6D38470□T	47	M,N	100	155	0.95
AGPI6D38560□T	56	M,N	100	202	0.85
AGPI6D38680□T	68	M,N	100	234	0.75
AGPI6D38820□T	82	M,N	100	324	0.70
AGPI6D38101□T	100	M,N	100	358	0.65

NOTE :

* The operating temperature range is -40°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.

◆ AGPI8D43 Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ($m\Omega$) Max.	Saturation Current (A) Max.
AGPI8D433R3□T	3.3	Y	100	22	5.80
AGPI8D434R7□T	4.7	Y	100	22	5.60
AGPI8D436R8□T	6.8	M,N	100	38	4.20
AGPI8D43100□T	10	M,N	100	45	3.70
AGPI8D43150□T	15	M,N	100	53	2.90
AGPI8D43220□T	22	M,N	100	75	2.10

NOTE :

* The operating temperature range is -40°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.

◆AGPI5012 Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ($m\Omega$) Max.	Saturation Current (A) Max.	Temp. Rise current (A) Max.
AGPI50123R3□T	3.3	Y	100	264	1.60	1.25
AGPI50124R7□T	4.7	Y	100	310	1.50	1.20
AGPI50126R8□T	6.8	M,N	100	360	1.30	1.10
AGPI50128R2□T	8.2	M,N	100	480	1.12	0.95
AGPI5012100□T	10	M,N	100	530	1.05	0.90
AGPI5012120□T	12	M,N	100	600	0.92	0.85

NOTE :

* The operating temperature range is -40°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.

*Irms:The value of D.C current when the temperature rise is $\Delta T \leq 40^{\circ}\text{C}$ ($T_a = 25^{\circ}\text{C}$).

◆AGPI6012 Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ($m\Omega$) Max.	Saturation Current (A) Max.	Temp. Rise current (A) Max.
AGPI60123R0□T	3.0	Y	100	120	1.90	2.00
AGPI60124R7□T	4.7	Y	100	180	1.80	1.90
AGPI60126R8□T	6.8	M,N	100	210	1.60	1.80
AGPI60128R2□T	8.2	M,N	100	280	1.30	1.60
AGPI6012100□T	10	M,N	100	310	1.10	1.50
AGPI6012120□T	12	M,N	100	450	1.00	1.20
AGPI6012150□T	15	M,N	100	480	0.95	1.10

NOTE :

* The operating temperature range is -40°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.

*Irms:The value of D.C current when the temperature rise is $\Delta T \leq 40^{\circ}\text{C}$ ($T_a = 25^{\circ}\text{C}$).

◆ AGPI7D15 Series Specification :

Part Number	Inductance (uH)	Inductance Tolerance	Test Freq. (KHz)	DCR (mΩ) Max.	Saturation Current (A) Max.
AGPI7D153R3□T	3.3	Y	100	65	2.80
AGPI7D154R7□T	4.7	Y	100	70	2.50
AGPI7D156R8□T	6.8	M,N	100	106	2.10
AGPI7D15100□T	10	M,N	100	150	1.40
AGPI7D15150□T	15	M,N	100	195	1.10
AGPI7D15220□T	22	M,N	100	300	0.90

NOTE :

* The operating temperature range is -40℃ to +125℃ (Including self-temperature rise).

* □ Tolerance M : ±20% , N : ±25% , Y : ±30%

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

◆ AGPI7D18 Series Specification :

Part Number	Inductance (uH)	Inductance Tolerance	Test Freq. (KHz)	DCR (mΩ) Max.	Saturation Current (A) Max.
AGPI7D182R2□T	2.2	Y	100	60	3.80
AGPI7D183R3□T	3.3	Y	100	67	3.20
AGPI7D184R7□T	4.7	Y	100	96	2.80
AGPI7D185R6□T	5.6	M,N	100	102	2.60
AGPI7D186R8□T	6.8	M,N	100	142	2.20
AGPI7D188R0□T	8.0	M,N	100	146	2.00
AGPI7D18100□T	10	M,N	100	148	1.70
AGPI7D18120□T	12	M,N	100	221	1.60
AGPI7D18150□T	15	M,N	100	276	1.30
AGPI7D18180□T	18	M,N	100	350	1.40
AGPI7D18220□T	22	M,N	100	400	1.10

NOTE :

* The operating temperature range is -40℃ to +125℃ (Including self-temperature rise).

* □ Tolerance M : ±20% , N : ±25% , Y : ±30%

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

◆ AGPI7D25 Series Specification :

Part Number	Inductance (uH)	Inductance Tolerance	Test Freq. (KHz)	DCR (mΩ) Max.	Saturation Current (A) Max.
AGPI7D252R7□T	2.7	Y	100	47	4.00
AGPI7D254R7□T	4.7	Y	100	70	3.20
AGPI7D256R8□T	6.8	M,N	100	77	2.80
AGPI7D258R2□T	8.2	M,N	100	92	2.60
AGPI7D25100□T	10	M,N	100	120	2.40
AGPI7D25120□T	12	M,N	100	130	2.00
AGPI7D25150□T	15	M,N	100	147	1.70
AGPI7D25180□T	18	M,N	100	193	1.60
AGPI7D25220□T	22	M,N	100	216	1.50

NOTE :

* The operating temperature range is -40℃ to +125℃ (Including self-temperature rise).

* □ Tolerance M : ±20% , N : ±25% , Y : ±30%

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

◆ AGPI7D28 Series Specification :

Part Number	Inductance (uH)	Inductance Tolerance	Test Freq. (KHz)	DCR (mΩ) Max.	Saturation Current (A) Max.
AGPI7D281R8□T	1.8	Y	100	27	4.50
AGPI7D282R7□T	2.7	Y	100	33	4.00
AGPI7D283R3□T	3.3	Y	100	36	3.50
AGPI7D284R3□T	4.3	Y	100	48	3.20
AGPI7D285R0□T	5.0	M,N	100	49	3.00
AGPI7D286R2□T	6.2	M,N	100	56	2.80
AGPI7D288R7□T	8.7	M,N	100	70	2.60
AGPI7D28100□T	10	M,N	100	77	2.40
AGPI7D28120□T	12	M,N	100	91	2.20
AGPI7D28150□T	15	M,N	100	104	1.90
AGPI7D28180□T	18	M,N	100	135	1.80

NOTE :

* The operating temperature range is -40℃ to +125℃ (Including self-temperature rise).

* □ Tolerance M : ±20% , N : ±25% , Y : ±30%

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

◆ AGPI10D15 Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ($m\Omega$) Max.	Saturation Current (A) Max.	Temp. Rise current (A) Max.
AGPI10D153R3□T	3.3	Y	100	70	3.40	2.90
AGPI10D154R7□T	4.7	Y	100	84	3.6(Ref.)	2.65
AGPI10D156R8□T	6.8	M,N	100	115	2.60	2.25
AGPI10D15100□T	10	M,N	100	170	2.30	1.75
AGPI10D15120□T	12	M,N	100	185	2.10	1.70
AGPI10D15150□T	15	M,N	100	220	1.65	1.50
AGPI10D15180□T	18	M,N	100	230	1.55	1.35
AGPI10D15220□T	22	M,N	100	320	1.45	1.25
AGPI10D15270□T	27	M,N	100	340	1.40	1.15
AGPI10D15330□T	33	M,N	100	410	1.20	1.00
AGPI10D15390□T	39	M,N	100	530	0.95	0.90
AGPI10D15470□T	47	M,N	100	580	0.80	0.75

NOTE :

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

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

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

*Irms:The value of D.C current when the temperature rise is $\Delta T \leq 40^{\circ}\text{C}$ ($T_a = 25^{\circ}\text{C}$).

◆ AGPI10D25 Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ($m\Omega$) Max.	Saturation Current (A) Max.	Temp. Rise current (A) Max.
AGPI10D253R3□T	3.3	Y	100	46	5.20	4.00
AGPI10D254R7□T	4.7	Y	100	54	4.20	3.70
AGPI10D256R8□T	6.8	M,N	100	56	3.80	3.50
AGPI10D25100□T	10	M,N	100	85	3.00	2.70
AGPI10D25120□T	12	M,N	100	116	2.80	2.25
AGPI10D25150□T	15	M,N	100	123	2.40	2.15
AGPI10D25180□T	18	M,N	100	143	2.35	2.00
AGPI10D25220□T	22	M,N	100	180	2.30	1.75
AGPI10D25270□T	27	M,N	100	204	2.00	1.60
AGPI10D25330□T	33	M,N	100	263	1.60	1.40
AGPI10D25390□T	39	M,N	100	292	1.50	1.30
AGPI10D25470□T	47	M,N	100	360	1.30	1.20
AGPI10D25560□T	56	M,N	100	452	1.20	1.05
AGPI10D25680□T	68	M,N	100	509	1.10	1.00

NOTE :

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

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

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

*Irms:The value of D.C current when the temperature rise is $\Delta T \leq 40^{\circ}\text{C}$ ($T_a = 25^{\circ}\text{C}$).