

PSP Series



PSP series is automatic assembly power inductor which is shielded with ferrite core. It is ideal for portal device DC-DC converter line.

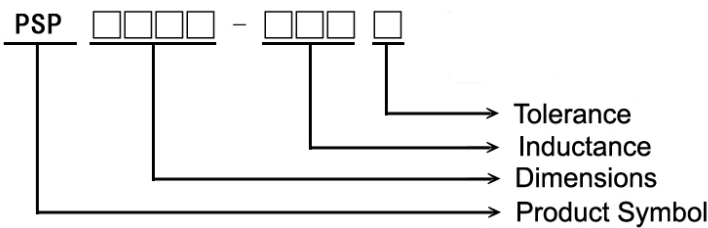
Features

- RoHS Compliant.
- Miniature size. 3*3*1~4*4*2 (mm)
- Magnetic shielded power inductor.
- Available on tape & reel for auto surface mounting.

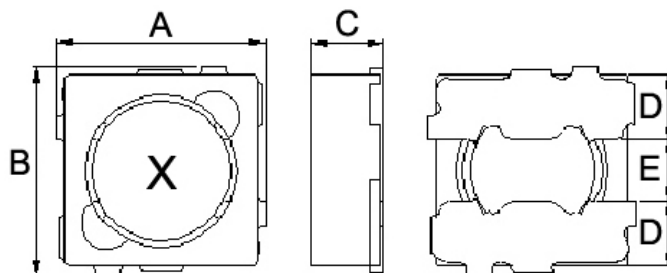
Applications

- Tablet PC, Smart Phone, GPS, DSC, Wireless Module, STB, Game Console

Product Identification



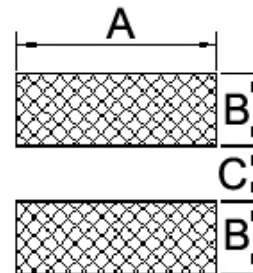
Shapes and Dimensions



Dimensions in mm

TYPE	A	B	C	D	E
PSP3010	3.0 ±0.2	3.0±0.2	1.0±0.1	1.1	0.8
PSP3015	3.0 ±0.2	3.0±0.2	1.5±0.1	1.1	0.8
PSP3020	3.0 ±0.2	3.0±0.2	2.0±0.1	1.1	0.8
PSP4012	4.0 ±0.2	4.0±0.2	1.2±0.1	1.3	1.2
PSP4016	4.0 ±0.2	4.0±0.2	1.6±0.1	1.3	1.2
PSP4020	4.0 ±0.2	4.0±0.2	2.0±0.1	1.3	1.2

Recommended Pattern



Dimensions in mm

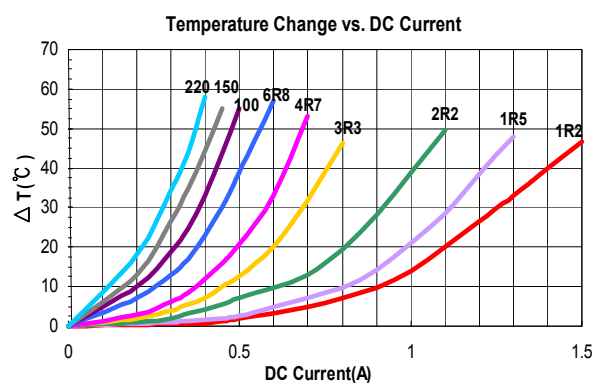
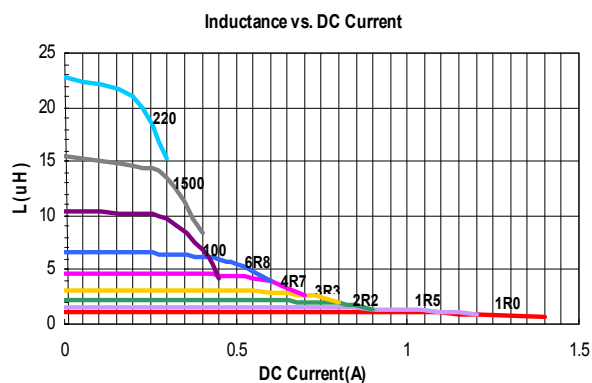
TYPE	A	B	C
PSP3010	3.2	1.1	1.0
PSP3015	3.2	1.1	1.0
PSP3020	3.2	1.1	1.0
PSP4012	4.2	1.5	1.2
PSP4016	4.2	1.5	1.2
PSP4020	4.2	1.5	1.2

Standard Specifications

Part Number	Inductance (μ H)	Tolerance ($\pm$ %)	Test Frequency (KHz)	RDC (Ω) $\pm$ 20%	Isat (mA)Typ	Irms (mA)Typ
PSP3010-1R2 □	1.2	30	100	0.095	1200	1400
PSP3010-1R5 □	1.5	30	100	0.123	1100	1200
PSP3010-2R2 □	2.2	30	100	0.178	900	1000
PSP3010-3R3 □	3.3	20,30	100	0.268	680	750
PSP3010-4R7 □	4.7	20,30	100	0.345	640	650
PSP3010-6R8 □	6.8	20,30	100	0.530	520	500
PSP3010-100 □	10	20,30	100	0.800	370	400
PSP3010-150 □	15	20,30	100	1.112	360	350
PSP3010-220 □	22	20,30	100	1.726	290	300

Test Freq.(L): 100KHz , 1V

- When ordering, please specify tolerance and packaging codes
- Tolerance: M = $\pm$ 20% , T = $\pm$ 30%
- Operating temperature range $-25^{\circ}\text{C} \sim 105^{\circ}\text{C}$. (Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current.
- I rms for a 40°C rise above 25°C ambient.
- Test Instrument: L: Agilent/HP 4284A + Agilent/HP 16334A
RDC: Digital Milliohm Meter Chroma 16502, or equivalent
Isat: HP4284+42841A
I rms: Agilent 6641 SYSTEM DC POWER SUPPLY

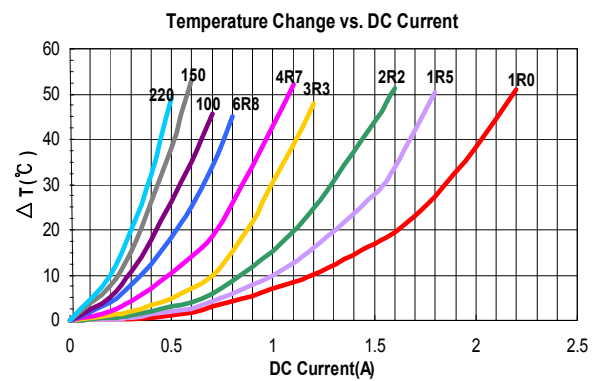
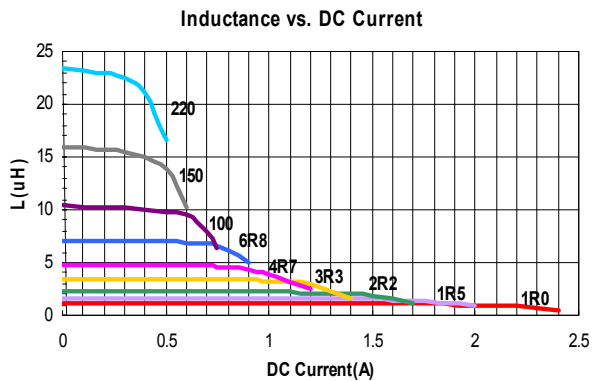


Standard Specifications

Part Number	Inductance (μ H)	Tolerance ($\pm$ %)	Test Frequency (KHz)	RDC (Ω) $\pm$ 20%	Isat (mA)Typ	Irms (mA)Typ
PSP3015-1R0 ☐	1.0	30	100	0.061	2000	2000
PSP3015-1R5 ☐	1.5	30	100	0.085	1700	1600
PSP3015-2R2 ☐	2.2	30	100	0.113	1500	1400
PSP3015-3R3 ☐	3.3	20,30	100	0.199	1100	1100
PSP3015-4R7 ☐	4.7	20,30	100	0.242	1000	950
PSP3015-6R8 ☐	6.8	20,30	100	0.420	790	750
PSP3015-100 ☐	10	20,30	100	0.537	690	650
PSP3015-150 ☐	15	20,30	100	0.846	540	500
PSP3015-220 ☐	22	20,30	100	1.301	450	420

Test Freq.(L): 100KHz , 1V

- When ordering, please specify tolerance and packaging codes
- Tolerance: M = $\pm$ 20% , T = $\pm$ 30%
- Operating temperature range - 25 $^{\circ}$ C ~ 105 $^{\circ}$ C . (Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40 $^{\circ}$ C rise above 25 $^{\circ}$ C ambient.
- Test Instrument: L: Agilent/HP 4284A + Agilent/HP 16334A
RDC: Digital Milliohm Meter Chroma 16502, or equivalent
Isat: HP4284+42841A
Irms: Agilent 6641 SYSTEM DC POWER SUPPLY

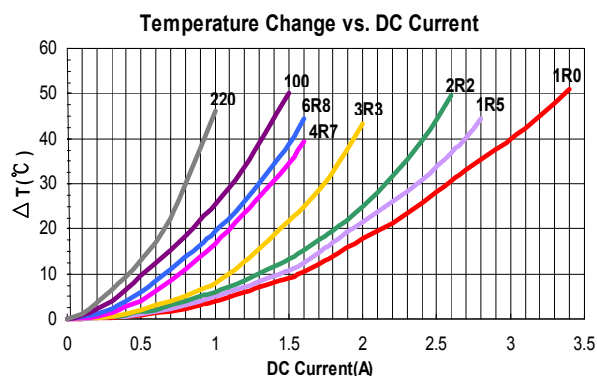
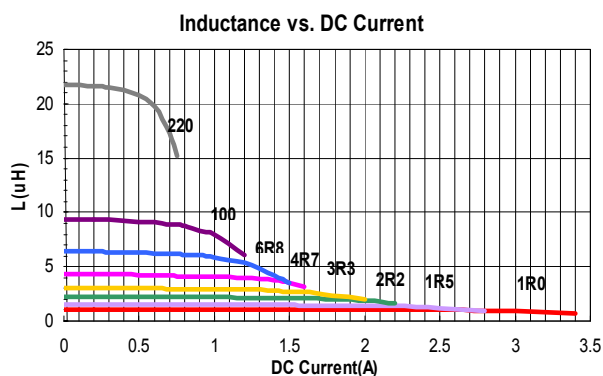


Standard Specifications

Part Number	Inductance (μ H)	Tolerance ($\pm$ %)	Test Frequency (KHz)	RDC (Ω) $\pm$ 20%	Isat (mA)Typ	Irms (mA)Typ
PSP3020-1R0 ☐	1.0	30	100	0.053	2100	2300
PSP3020-1R5 ☐	1.5	30	100	0.061	1900	2100
PSP3020-2R2 ☐	2.2	30	100	0.086	1500	1700
PSP3020-3R3 ☐	3.3	20,30	100	0.125	1400	1500
PSP3020-4R7 ☐	4.7	20,30	100	0.157	1000	1200
PSP3020-6R8 ☐	6.8	20,30	100	0.222	890	920
PSP3020-100 ☐	10	20,30	100	0.355	730	800
PSP3020-150 ☐	15	20,30	100	0.544	550	630
PSP3020-220 ☐	22	20,30	100	0.797	460	520

Test Freq.(L): 100KHz , 1V

- When ordering, please specify tolerance and packaging codes
- Tolerance: M = $\pm$ 20% , T = $\pm$ 30%
- Operating temperature range $-25^{\circ}\text{C} \sim 105^{\circ}\text{C}$. (Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40°C rise above 25°C ambient.
- Test Instrument: L: Agilent/HP 4284A + Agilent/HP 16334A
RDC: Digital Milliohm Meter Chroma 16502, or equivalent
Isat: HP4284+42841A
Irms: Agilent 6641 SYSTEM DC POWER SUPPLY

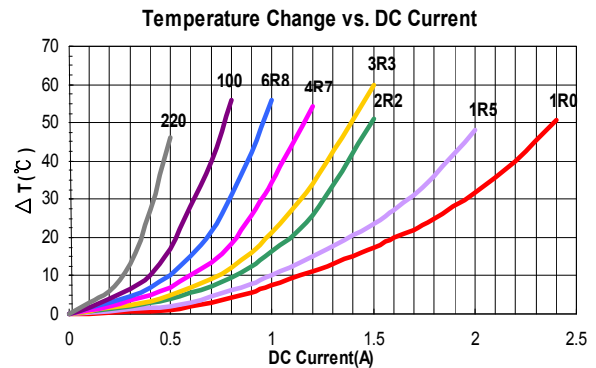
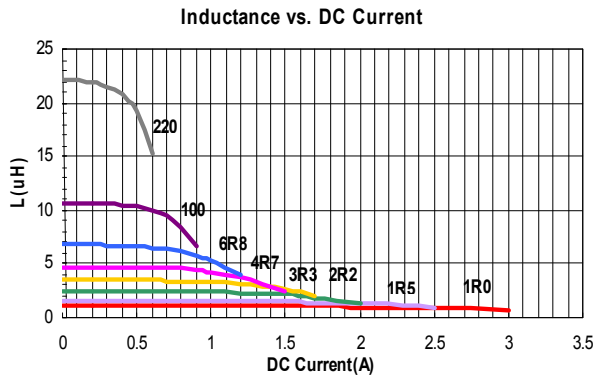


Standard Specifications

Part Number	Inductance (μ H)	Tolerance ($\pm$ %)	Test Frequency (KHz)	RDC (Ω) $\pm$ 20%	Isat (mA)Typ	Irms (mA)Typ
PSP4012-1R0 ☐	1.0	30	100	0.055	2500	2100
PSP4012-1R5 ☐	1.5	30	100	0.070	2000	1800
PSP4012-2R2 ☐	2.2	30	100	0.110	1600	1350
PSP4012-3R3 ☐	3.3	20,30	100	0.140	1400	1200
PSP4012-4R7 ☐	4.7	20,30	100	0.190	1200	1000
PSP4012-6R8 ☐	6.8	20,30	100	0.280	1000	850
PSP4012-100 ☐	10	20,30	100	0.420	800	650
PSP4012-220 ☐	22	20,30	100	0.800	600	450

Test Freq.(L): 100KHz , 1V

- When ordering, please specify tolerance and packaging codes
- Tolerance: M = $\pm$ 20% , T = $\pm$ 30%
- Operating temperature range - 25 $^{\circ}$ C ~ 105 $^{\circ}$ C . (Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current.
- I rms for a 40 $^{\circ}$ C rise above 25 $^{\circ}$ C ambient.
- Test Instrument: L: Agilent/HP 4284A + Agilent/HP 16334A
RDC: Digital Milliohm Meter Chroma 16502, or equivalent
Isat: HP4284+42841A
I rms: Agilent 6641 SYSTEM DC POWER SUPPLY

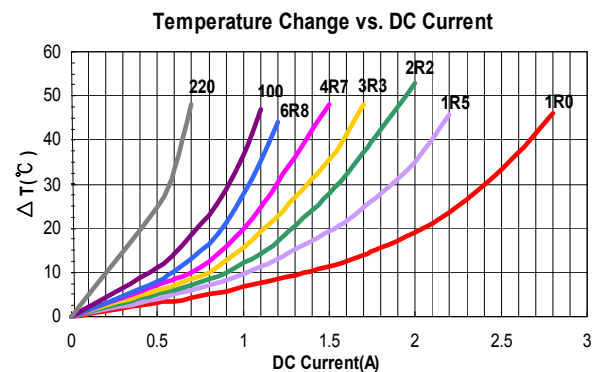
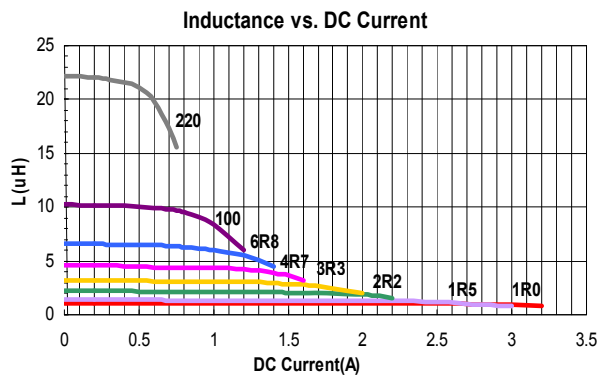


Standard Specifications

Part Number	Inductance (μ H)	Tolerance ($\pm\%$)	Test Frequency (KHz)	RDC (Ω) $\pm 20\%$	Isat (mA)Typ	Irms (mA)Typ
PSP4016-1R0 ☐	1.0	30	100	0.044	2800	2600
PSP4016-1R5 ☐	1.5	30	100	0.059	2500	2100
PSP4016-2R2 ☐	2.2	30	100	0.090	1900	1700
PSP4016-3R3 ☐	3.3	20,30	100	0.109	1700	1500
PSP4016-4R7 ☐	4.7	20,30	100	0.134	1500	1300
PSP4016-6R8 ☐	6.8	20,30	100	0.181	1200	1100
PSP4016-100 ☐	10	20,30	100	0.262	1000	1000
PSP4016-220 ☐	22	20,30	100	0.562	690	600

Test Freq.(L): 100KHz , 1V

- When ordering, please specify tolerance and packaging codes
- Tolerance: M = $\pm 20\%$, T = $\pm 30\%$
- Operating temperature range - 25 $^{\circ}$ C ~ 105 $^{\circ}$ C . (Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current.
- I rms for a 40 $^{\circ}$ C rise above 25 $^{\circ}$ C ambient.
- Test Instrument: L: Agilent/HP 4284A + Agilent/HP 16334A
RDC: Digital Milliohm Meter Chroma 16502, or equivalent
Isat: HP4284+42841A
I rms: Agilent 6641 SYSTEM DC POWER SUPPLY

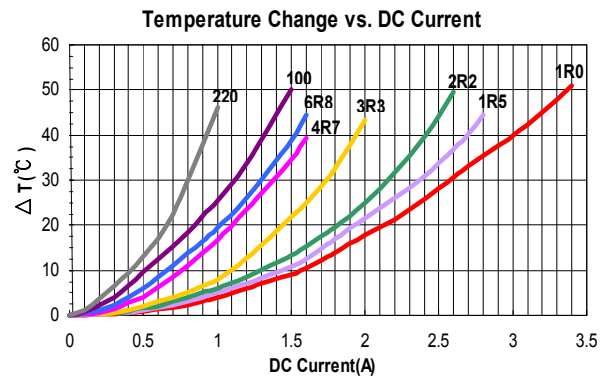
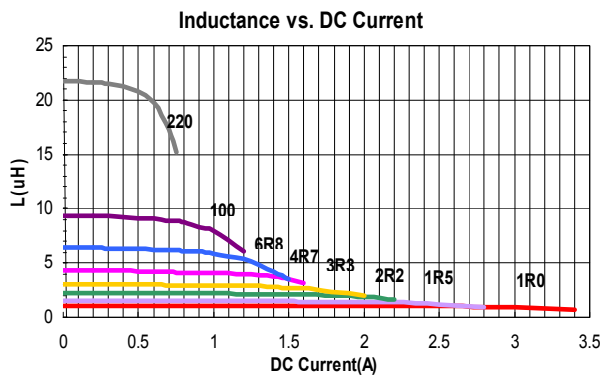


Standard Specifications

Part Number	Inductance (μ H)	Tolerance ($\pm$ %)	Test Frequency (KHz)	RDC (Ω) $\pm$ 20%	Isat (mA)Typ	Irms (mA)Typ
PSP4020-1R0 □	1.2	30	100	0.051	2900	3000
PSP4020-1R5 □	1.5	30	100	0.059	2500	2700
PSP4020-2R2 □	2.2	30	100	0.066	2100	2400
PSP4020-3R3 □	3.3	20,30	100	0.077	1700	1800
PSP4020-4R7 □	4.7	20,30	100	0.100	1400	1500
PSP4020-6R8 □	6.8	20,30	100	0.125	1200	1400
PSP4020-100 □	10	20,30	100	0.177	1100	1300
PSP4020-220 □	22	20,30	100	0.365	670	800

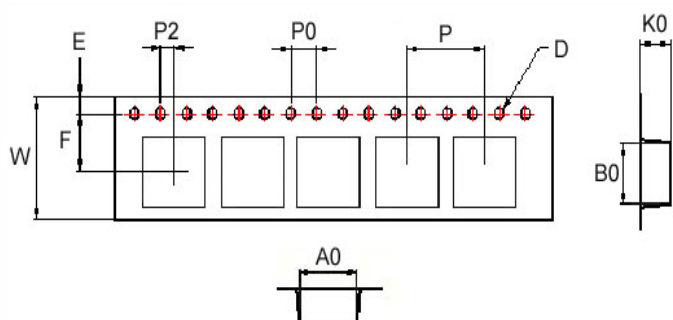
Test Freq.(L): 100KHz , 1V

- When ordering, please specify tolerance and packaging codes
- Tolerance: M = $\pm$ 20% , T = $\pm$ 30%
- Operating temperature range - 25 $^{\circ}$ C ~ 105 $^{\circ}$ C . (Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current.
- I rms for a 40 $^{\circ}$ C rise above 25 $^{\circ}$ C ambient.
- Test Instrument: L: Agilent/HP 4284A + Agilent/HP 16334A
RDC: Digital Milliohm Meter Chroma 16502, or equivalent
Isat: HP4284+42841A
I rms: Agilent 6641 SYSTEM DC POWER SUPPLY

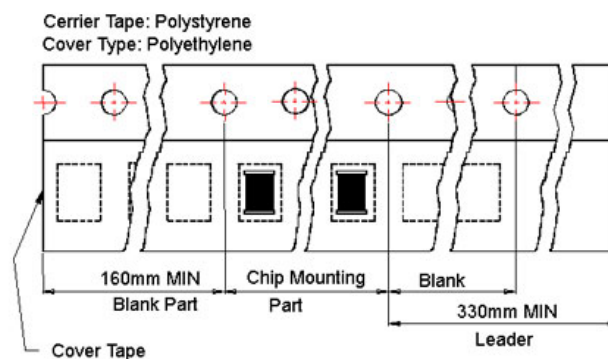


Packaging Specifications

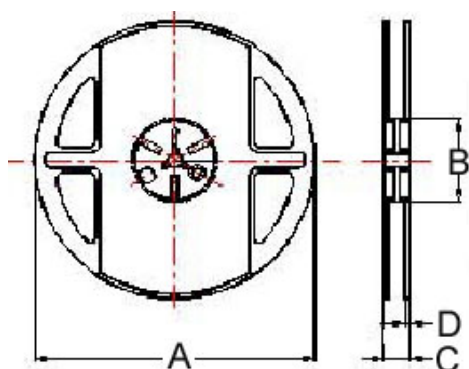
Tape Dimensions



Reel Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions										Reel Dimensions				Quantity PCS / REEL
	A0	B0	K0	D	E	F	W	P	P0	P2	A	B	C	D	
PSP3010	3.25	3.25	1.1	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	2000
PSP3015	3.25	3.25	1.6	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	1000
PSP3020	3.25	3.25	2.1	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	1000
PSP4012	4.25	4.25	1.3	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	1000
PSP4016	4.25	4.25	1.7	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	1000
PSP4020	4.25	4.25	2.1	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	1000