

Assembled SMD Power Inductor –AMWPQ Series



Operating Temp : -40°C ~+125°C (Including self-heating)

FEATURES

- ◆ Excellent temperature stability
- ◆ High reliability, AEC-Q200 qualified
- ◆ Halogen free, RoHS compliant
- ◆ Simple assembled structure
- ◆ High saturation characteristic core for high saturation current and low loss

APPLICATIONS

- ◆ Vehicle motor control
- ◆ PFC Inductor

PRODUCT IDENTIFICATION

1	2	3	4	5	6	7
AMWPQ	2818	L	4R7	K	P	□□□

1	Type
AMWPQ	Assembled SMD Power Inductor

2	External Dimensions(L×W) [mm]
2815	25.5×27.0×15.5
2818	25.5×27.0×17.5
3316	33×33×16
2616	26.5×26.5×16.5

3	Feature Type
T	T Type material
L	L Type material
S	S Type material

5	Inductance Tolerance
K	±10%
M	±20%

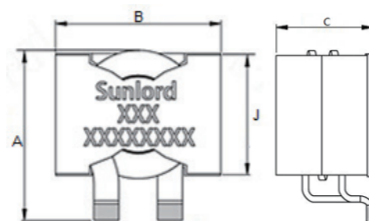
6	Packing
P	Pallet
T	Taping
B	Bulk

4	Nominal Inductance
Example	Nominal Value
1R0	1.0μH
2R2	2.2μH
3R3	3.3μH
4R7	4.7μH
6R8	6.8μH
100	10μH
150	15μH
220	22μH
330	33μH

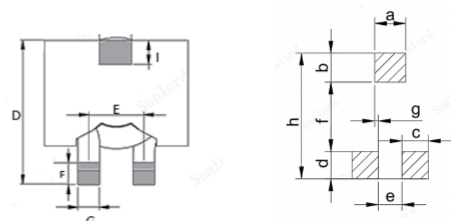
7	Design Code
	Standard product is blank

SHAPE AND DIMENSIONS

AMWPQ2815L&AMWPQ2818L



Recommended Land Pattern



Unit: mm

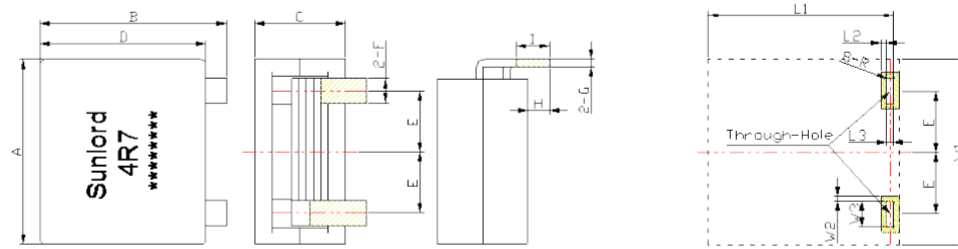
SHAPE AND DIMENSIONS

Series	A	B	C	D	E	F	G	H	I
AMWPQ2815L	25.5±1.0	27.0±1.0	15.5±0.5	24.4±0.5	10.4±0.3	3.8±0.5	4.0±0.3	5.0±0.3	4.4±0.3
Series	J	a	b	c	d	e	f	g	h
AMWPQ2815L	19.5±1.0	6.5 ref	6.0 ref	5.8 ref	5.7 ref	4.6 ref	14.4 ref	0.95 ref	26.1 ref

Series	A	B	C	D	E	F	G	H	I
AMWPQ2818L	25.5±1.0	27.0±1.0	17.5±0.5	24.4±0.5	10.4±0.3	3.8±0.5	4.0±0.3	5.0±0.3	4.4±0.3
Series	J	a	b	c	d	e	f	g	h
AMWPQ2818L	19.5±1.0	6.5 ref	6.0 ref	5.8 ref	5.7 ref	4.6 ref	14.4 ref	0.95 ref	26.1 ref

AMWPQ3316T

Recommended Land Pattern

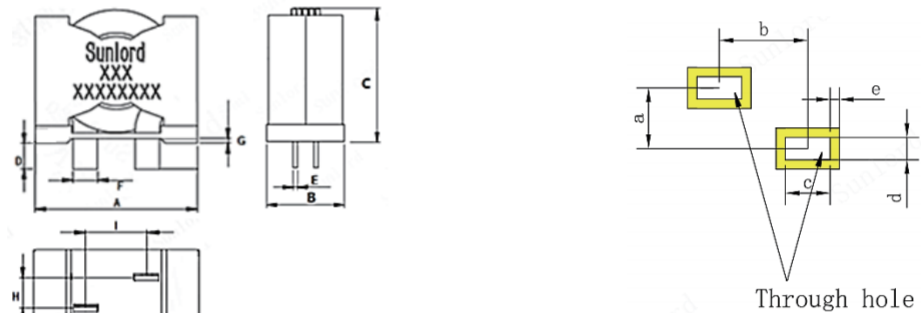


Unit: mm

Series	A	B	C	D	E	F	G	H
AMWPQ3316T	33±1.0	33±1.0	16±0.4	29.8 max	10.9±0.5	4.4+0.15/-0.4	1.25±0.15	3.5±0.5
Series	I	L1	L2	L3	W1	W2	W3	R
AMWPQ3316T	4.0Min.	34.7ref	1.0ref	1.75±0.2	36ref	1.0ref	5.5±0.1	0.2ref

AMWPQ2616S

Recommended Land Pattern



Unit: mm

Series	A	B	C	D	E	F	G	H	I
AMWPQ2616S	26.5±1.0	16.5±1.0	22.3±1.0	4±0.5	1.6±0.3	4.0±0.3	1.0±0.2	6.5±0.5	9.5±0.5
Series	a	b	c	d	e				
AMWPQ2616S	6.5±0.5	9.5±0.5	4.8 ref	2.4 ref	1.0 ref				

SPECIFICATIONS AMWPQ2815L Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	@0.1MHz/0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ		A		A	
Symbol	L	DCR		Isat		Irms	
AMWPQ2815L1R5KP	1.5±10%	1.90	1.60	100.0	>100.0	34	42
AMWPQ2815L2R2KP	2.2±10%	1.90	1.60	82.0	85.0	34	42
AMWPQ2815L3R3KP	3.3±10%	1.90	1.60	48.0	57.0	34	42
AMWPQ2815L4R7KP	4.7±10%	1.90	1.60	33.0	39.0	34	42
AMWPQ2815L6R8KP	6.8±10%	1.90	1.60	22.0	28.0	34	42
AMWPQ2815L100KP	10±10%	1.90	1.60	13.0	17.6	34	42
AMWPQ2815L150KP	15±10%	1.90	1.60	7.5	11.0	34	42
AMWPQ2815L220KP	22±10%	1.90	1.60	4.5	6.8	34	42
AMWPQ2815L330KP	33±10%	1.90	1.60	2.0	3.3	34	42

AMWPQ2818L Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	@0.1MHz/0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ		A		A	
Symbol	L	DCR		Isat		Irms	
AMWPQ2818L3R3KP	3.3±10%	2.50	2.20	76	85	36	45
AMWPQ2818L4R7KP	4.7±10%	2.50	2.20	55	62	36	45
AMWPQ2818L6R8KP	6.8±10%	2.50	2.20	40	45	36	45
AMWPQ2818L100KP	10±10%	2.50	2.20	28	32	36	45
AMWPQ2818L150KP	15±10%	2.50	2.20	18	22	36	45
AMWPQ2818L220KP	22±10%	2.50	2.20	12	15	36	45
AMWPQ2818L330KP	33±10%	2.50	2.20	7.0	9.6	36	45

AMWPQ3316T Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	@0.1MHz/0.1V	Typ.		Max.	Typ.	Max.	Typ.
Units	μH	mΩ		A	A	A	A
Symbol	L	DCR		Isat(-30%)		Irms	
AMWPQ3316T3R3KP	3.3±10%	1.2±10%		100	>100	50	53
AMWPQ3316T4R7KP	4.7±10%	1.2±10%		70	73	50	53

AMWPQ2616S Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	@0.1MHz/0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ		A		A	
Symbol	L	DCR		Isat(-20%)		Irms	
AMWPQ2616S1R0KP	1.0±10%	0.90	0.70	95	120	60	75
AMWPQ2616S2R2KP	2.2±10%	0.90	0.70	71	80	60	75

Note: ※1:Rated current: Isat(Max.) or Irms(Max.), whichever is smaller.

※2:Saturation Current:

Max.Value, DC current at which the inductance drops less than 30% from its value without Current that is including AMWPQ2815L,AMWPQ2818L and AMWPQ3316T series, only AMWPQ2616S series is 20%;

Typ.Value, DC current at which the inductance drops approximate 30% from its value without current.

※3:Heat Rating Current:DC current that causes the temperature rise (ΔT) from 20°C ambient;

For Max.Value,temperature rise (ΔT) is 20°C.

For Typ.Value, temperature rise (ΔT) is approximate 40°C.

The part temperature (ambient + temp. rise) should not exceed 125°C under worst case operating conditions. Circuit design, component placement, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.