

Assembled SMD Power Inductors – 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, 48V start-stop system
- PFC Inductor

PRODUCT IDENTIFICATION

AMWPQ

①

2818

②

L

③

4R7

④

K

⑤

P

⑥

□□□

⑦

① Type	
AMWPQ	Assembled SMD Power Inductor

③ Feature Type	
T	T Type material
L	L Type material

⑤ Inductance Tolerance	
K	±10%
M	±20%

⑥ Packing	
P	Pallet
T	Taping
B	Bulk

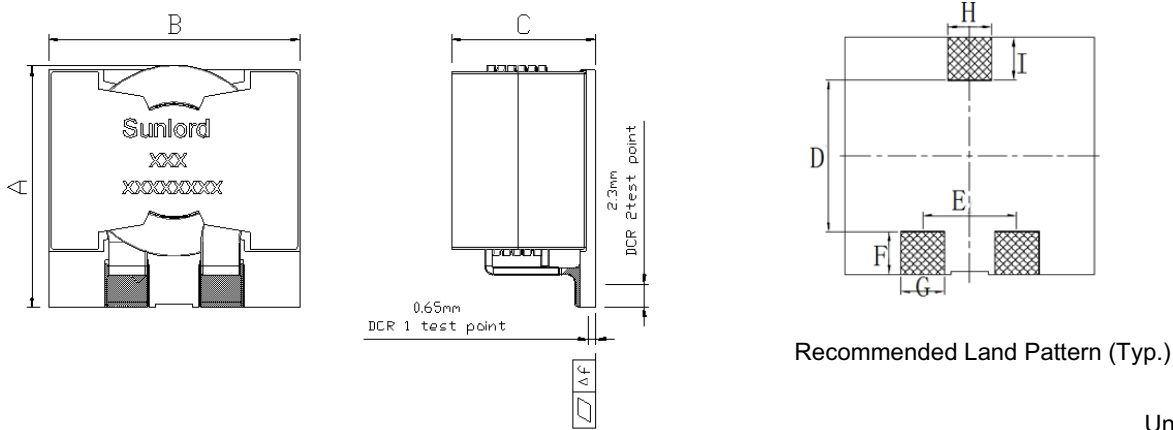
② External Dimensions(L×W×H) [mm]	
2815	28×28×15
2818	28×28×18
3316	33×33×16

④ Nominal Inductance	
Example	Nominal Value
3R3	3.3μH
4R7	4.7μH
6R8	6.8μH
100	10μH
150	15μH
220	22μH
330	33μH

⑦ Design Code	
Standard product is blank	

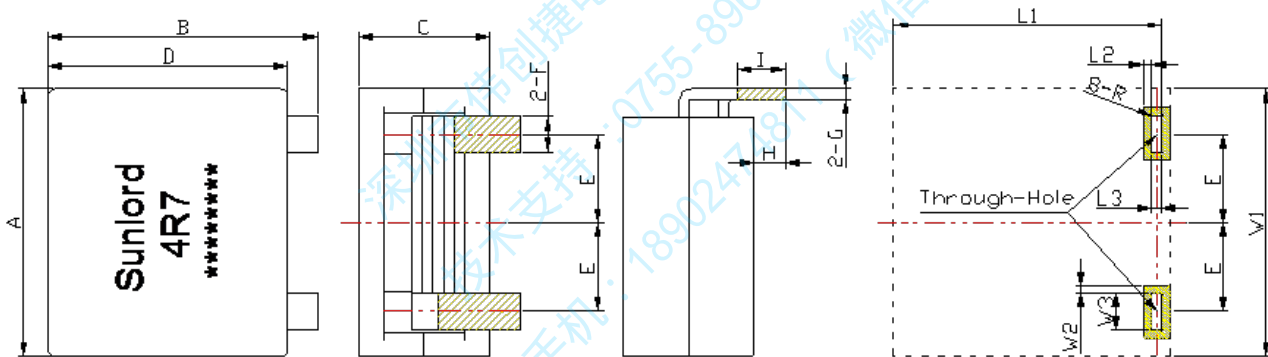
SHAPE AND DIMENSIONS

AMWPQ2815&AMWPQ2818



Series	A	B	C	D(Typ.)	E(Typ.)	F(Typ.)	G(Typ.)	H(Typ.)	I(Typ.)
AMWPQ2815	26.5±1.0	27.1±0.5	15.5±0.5	15.4	10.2	5.6	5.7	5.7	5.6
Series	A	B	C	D(TYP.)	E(TYP.)	F(TYP.)	G(TYP.)	H(TYP.)	I(TYP.)
AMWPQ2818	26.5±1.0	27.1±0.5	17.5±0.5	15.4	10.2	5.6	5.7	5.7	5.6

AMWPQ3316



Series	A	B	C	D	E	F	G	H
AMWPQ3316	33±1.0	33±1.0	16±0.4	29.8Max.	10.9±0.5	4.4 +0.15/-0.4	1.25 ±0.15	3.8±0.3
Series	I	L1	L2	L3	W1	W2	W3	R
AMWPQ3316	5.0Min.	34.7Ref.	1.0Ref.	1.75±0.2	36.0Ref.	1.0Ref.	5.5±0.1	0.2Ref.

SPECIFICATIONS

AMWPQ2815 Series

Part Number	Inductance	DC Resistance 1		DC Resistance 2		Saturation Current		Heat Rating Current	
	@0.1MHz/0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	$\text{m}\Omega$		$\text{m}\Omega$		A		A	
Symbol	L	DCR		DCR		Isat		Irms	
AMWPQ2815L1R5KP	$1.5 \pm 10\%$	1.65	1.50	2.5	2.2	100.0	>100.0	34	42
AMWPQ2815L2R2KP	$2.2 \pm 10\%$	1.65	1.50	2.5	2.2	82.0	85.0	34	42
AMWPQ2815L3R3KP	$3.3 \pm 10\%$	1.65	1.50	2.5	2.2	48.0	57.0	34	42
AMWPQ2815L4R7KP	$4.7 \pm 10\%$	1.65	1.50	2.5	2.2	33.0	39.0	34	42
AMWPQ2815L6R8KP	$6.8 \pm 10\%$	1.65	1.50	2.5	2.2	22.0	28.0	34	42
AMWPQ2815L100KP	$10 \pm 10\%$	1.65	1.50	2.5	2.2	13.0	17.6	34	42
AMWPQ2815L150KP	$15 \pm 10\%$	1.65	1.50	2.5	2.2	7.5	11.0	34	42
AMWPQ2815L220KP	$22 \pm 10\%$	1.65	1.50	2.5	2.2	4.5	6.8	34	42
AMWPQ2815L330KP	$33 \pm 10\%$	1.65	1.50	2.5	2.2	2.0	3.3	34	42

AMWPQ2818 Series

Part Number	Inductance	DC Resistance 1		DC Resistance 2		Saturation Current		Heat Rating Current	
	@0.1MHz/0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	$\text{m}\Omega$		$\text{m}\Omega$		A		A	
Symbol	L	DCR		DCR		Isat		Irms	
AMWPQ2818L3R3KP	$3.3 \pm 10\%$	2.53	2.20	3.30	2.86	91	93	36	45
AMWPQ2818L4R7KP	$4.7 \pm 10\%$	2.53	2.20	3.30	2.86	59	62	36	45
AMWPQ2818L6R8KP	$6.8 \pm 10\%$	2.53	2.20	3.30	2.86	42	45	36	45
AMWPQ2818L100KP	$10 \pm 10\%$	2.53	2.20	3.30	2.86	28	32	36	45
AMWPQ2818L150KP	$15 \pm 10\%$	2.53	2.20	3.30	2.86	18	22	36	45
AMWPQ2818L220KP	$22 \pm 10\%$	2.53	2.20	3.30	2.86	12	15	36	45
AMWPQ2818L330KP	$33 \pm 10\%$	2.53	2.20	3.30	2.86	7.0	9.6	36	45

AMWPQ3316 Series

Part Number	Inductance	DC Resistance	Saturation Current	Heat Rating Current
	@0.1MHz/0.1V	Typ.	Typ.	Typ.
Units	μH	$\text{m}\Omega$	A	A
Symbol	L	DCR	Isat	Irms
AMWPQ3316T3R3KP	$3.3 \pm 10\%$	$1.2 \pm 10\%$	> 100	30
AMWPQ3316T4R7KP	$4.7 \pm 12\%$	$1.2 \pm 10\%$	70	30

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; 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 150 °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.