

Flat Wire Assembly Inductor-TREQ Series

The Flat Wire Assembly Inductor is designed with a professional flat wire winding and precision assembly process. It has the advantages of compact structure, high power density, low high-frequency loss and strong anti-interference performance.



Features

- Small size, high current, low loss, low ESR and small parasitic capacitance.
- Closed magnetic circuit for ultra-low noise.
- Stable temperature rise & saturation current against ambient changes.

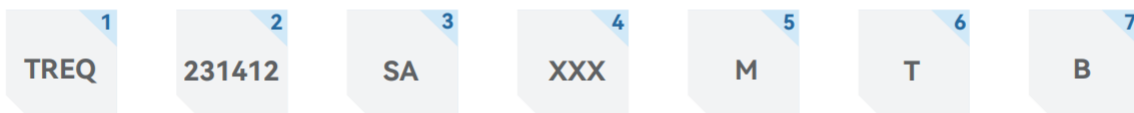
Applications

- DC-DC converters
- Server
- Battery power devices
- High current power supplies

Operating Temp

- -40°C~+125°C

Product Identification



1	Product Symbol
TREQ	SMD Power Inductor

2	External Dimensions(mm)
231412	22.6*14.0*12.0
251808	25.0*18.0*8.4
302010	30.0*20.0*9.5

4	Nominal Inductance
R82	0.82μH
1R0	1.0μH
100	10μH

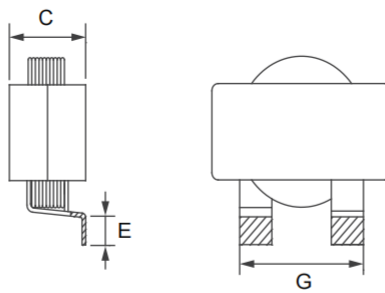
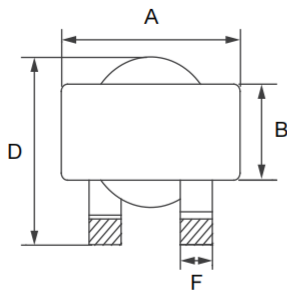
3	Internal Code
SA	Alloy Powder

5	Inductance Tolerance
M	±20%

6	Packing
T	Tape Carrier Package

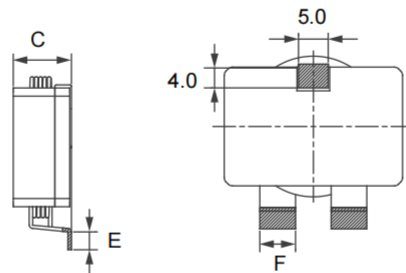
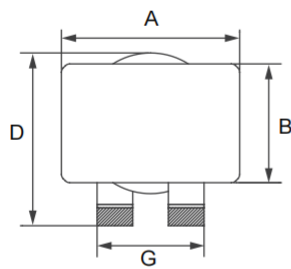
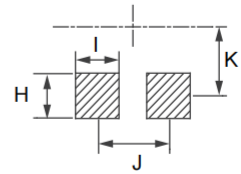
7	Internal Code
B	Special

Shape and Dimensions



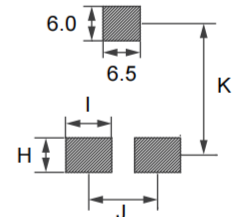
Remark:TREQ231412SA~TREQ251808SA

Recommended pattern



Remark:TREQ302010SA

Recommended pattern



Dimensions

Unit:mm

Series	A	B	C	D	E	F	G	H	I	J	K
TREQ231412SA	22.6±0.6	14.0±0.3	12.0Max.	22.5Max.	2.5±0.5	4.5±0.2	14.5±0.5	5.0	6.0	10.0	11.0
TREQ251808SA	25.0±0.5	18.0±0.5	8.4Max.	25.0Max.	2.5±0.5	4.5±0.2	14.5±0.5	5.0	6.0	10.0	13.0
TREQ302010SA	30.0±0.5	20.0±0.5	9.5±0.5	30.0Max.	3.0±0.5	6.0±0.2	18.0±0.5	6.0	8.0	12.0	24.2

Specification

TREQ231412SA Series

Part Number	Inductance	Saturation Current	Heat Rating Current	DC Resistance	
	L (μH)	Isat(A)	Irms(A)	DCR(mΩ)	
	±20 %	Typ.	Typ.	Max.	Typ.
TREQ231412SAR82MTB	0.82	70.00	40.00	0.68	0.57
TREQ231412SA2R2MTB	2.2	64.00	22.00	3.30	2.80
TREQ231412SA3R3MTB	3.3	49.00	19.00	4.50	3.80
TREQ231412SA4R7MTB	4.7	33.00	19.00	4.50	3.80
TREQ231412SA6R8MTB	6.8	29.00	19.00	4.50	3.80
TREQ231412SA110MTB	10	20.00	16.00	5.20	4.30
TREQ231412SA220MTB	22	15.00	13.00	15.20	12.70
TREQ231412SA330MTB	33	10.50	13.00	15.20	12.70
TREQ231412SA470MTB	47	8.00	13.00	15.20	12.70
TREQ231412SA560MTB	56	5.00	13.00	15.20	12.70

TREQ251808SA Series

Part Number	Inductance	Saturation Current	Heat Rating Current	DC Resistance	
	L (μH)	Isat(A)	Irms(A)	DCR(mΩ)	
	±20 %	Typ.	Typ.	Max.	Typ.
TREQ251808SA1R5MTB	1.5	60.00	28.00	2.00	1.68
TREQ251808SA3R3MTB	3.3	38.00	26.00	3.00	2.60
TREQ251808SA4R7MTB	4.7	30.00	26.00	3.00	2.60
TREQ251808SA6R8MTB	6.8	23.00	23.00	3.70	3.10
TREQ251808SA100MTB	10	20.00	18.00	5.60	4.70
TREQ251808SA150MTB	15	15.50	15.00	8.76	7.30
TREQ251808SA220MTB	22	11.50	15.00	8.76	7.30
TREQ251808SA330MTB	33	8.50	15.00	8.76	7.30
TREQ251808SA560MTB	56	4.30	15.00	8.76	7.30

TREQ302010SA Series

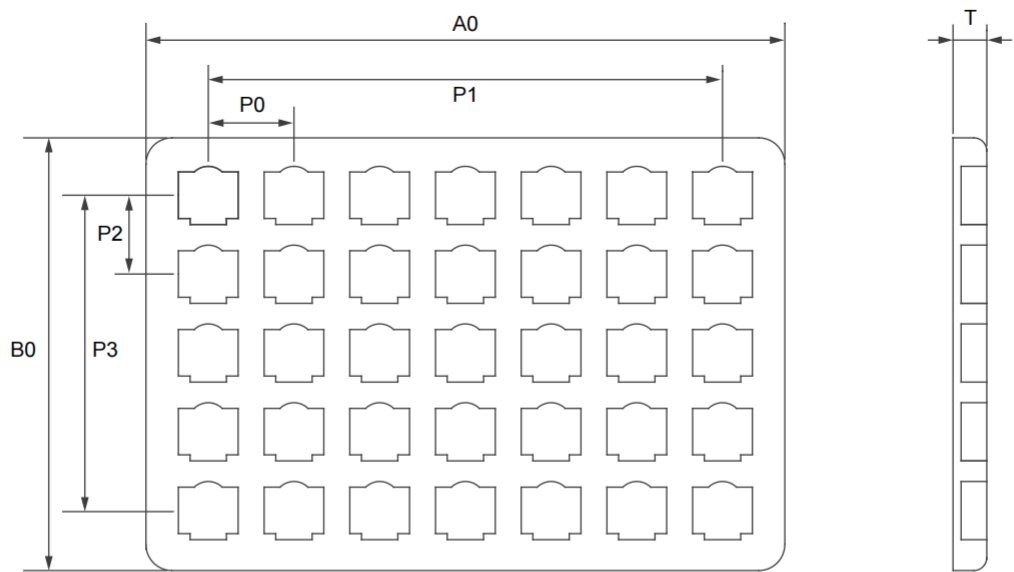
Part Number	Inductance	Saturation Current	Heat Rating Current	DC Resistance	
	L (μH)	Isat(A)	Irms(A)	DCR(mΩ)	
	±20 %	Typ.	Typ.	Max.	Typ.
TREQ302010SA1R0MTB	1.0	67.00	63.50	0.46	0.38
TREQ302010SA2R2MTB	2.2	49.00	52.00	0.72	0.60
TREQ302010SA3R3MTB	3.3	43.50	36.50	1.42	1.18
TREQ302010SA4R7MTB	4.7	37.00	31.00	2.09	1.74
TREQ302010SA6R8MTB	6.8	31.50	24.50	3.18	2.65
TREQ302010SA8R2MTB	8.2	30.00	21.50	4.14	3.45
TREQ302010SA100MTB	10	27.50	18.50	5.53	4.61

Notes

- All data is tested based on 25 ambient temperature.
- Inductance measure condition at 100kHz, 0.1V.
- Saturation current the actual value of DC current when the inductance decrease 20% of its initial value.
- Temperature rise current the actual value of DC current when the temperature rise is $\Delta T40$ ($T_a=25$).

Packaging Information

Tape Dimensions



Dimensions

Series	A0	B0	P0	P1	P2	P3	T	Packaging Unit (Pcs)
TREQ231412SA	246	196	33	198	30	150	13	42
TREQ251808SA	246	196	33.5	210	34.5	138	12	35
TREQ302010SA	245	195	51.6	154.8	58	149	15	12