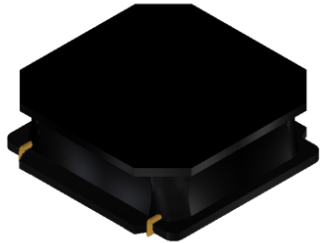
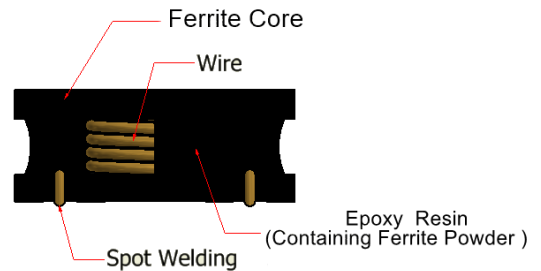


FNR40series



CONSTRUCTION



FEATURES

Magnetically structure
Low DC resistance
Large Current Capability

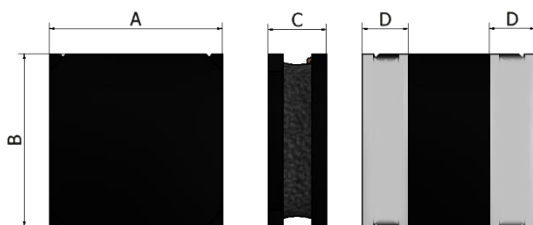
APPLICATIONS

Hard Disk Drives
Car audio equipment
Tablet PC
Navigation system
SSD
Touch Panel

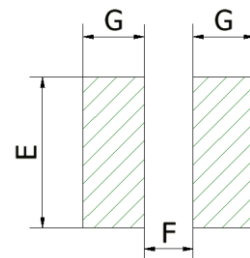
SPECIFICATIONS

Operating temperature range	-40 to +125°C
Storage temperature range	Under 25°C
Packaging style	Taping
Quantities	1,000~3,000 pieces/reel

SHAPE AND DIMENSIONS



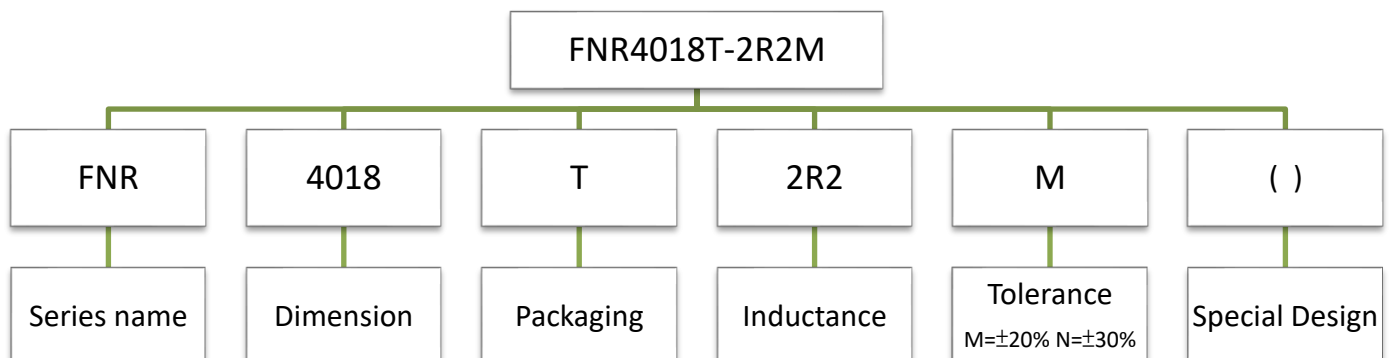
RECOMMENDED PATTERN



(Unit: mm)

TYPE	A	B	C	D	E	F	G
FNR4010	4.0±0.2	4.0±0.2	1.02max	1.3±0.3	4.2	1.2	1.5
FNR4012	4.0±0.2	4.0±0.2	1.2±0.1	1.3±0.3	4.2	1.2	1.5
FNR4018	4.0±0.2	4.0±0.2	1.8±0.2	1.3±0.3	4.2	1.2	1.5
FNR4030	4.0±0.2	4.0±0.2	3.0max	1.3±0.3	4.2	1.2	1.5

PRODUCT IDENTIFICATION (ex.)



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (uH)	Inductance tolerance	Test Frequency (kHz)	DC Resistance (Ω) ±20%	Saturation current Isat(mA)		Temperature rise current Irms(mA)	
					Typ.	Max.	Typ.	Max.
FNR4010T-1R0N	1.0	±30%	100	0.069	2500	2300	2200	2000
FNR4010T-2R2M	2.2	±20%	100	0.119	1600	1400	1400	1200
FNR4010T-3R3M	3.3	±20%	100	0.133	1500	1300	1300	1100
FNR4010T-4R7M	4.7	±20%	100	0.200	1300	1100	1200	950
FNR4010T-6R8M	6.8	±20%	100	0.300	1000	900	1000	800
FNR4010T-8R2M	8.2	±20%	100	0.330	900	700	900	750
FNR4010T-100M	10	±20%	100	0.400	800	620	800	700
FNR4010T-150M	15	±20%	100	0.510	700	550	700	600
FNR4010T-220M	22	±20%	100	1.081	550	350	500	400
FNR4010T-470M	47	±20%	100	1.808	250	200	300	250

Part No.	Inductance (uH)	Inductance tolerance	Test Frequency (kHz)	DC Resistance (Ω) ±20%	Saturation current Isat(mA)		Temperature rise current Irms(mA)	
					Typ.	Max.	Typ.	Max.
FNR4012T-1R0N	1.0	±30%	100	0.048	2500	2250	1700	1500
FNR4012T-1R5N	1.5	±30%	100	0.058	2100	1850	1600	1400
FNR4012T-2R2M	2.2	±20%	100	0.065	1700	1500	1500	1350
FNR4012T-3R3M	3.3	±20%	100	0.090	1300	1170	1400	1250
FNR4012T-4R7M	4.7	±20%	100	0.110	1100	990	1200	1080
FNR4012T-6R8M	6.8	±20%	100	0.135	900	810	1050	940
FNR4012T-100M	10	±20%	100	0.190	780	700	900	810
FNR4012T-150M	15	±20%	100	0.250	650	580	850	760
FNR4012T-220M	22	±20%	100	0.400	520	460	750	670
FNR4012T-330M	33	±20%	100	0.600	440	390	700	630
FNR4012T-470M	47	±20%	100	0.930	350	310	500	450

Part No.	Inductance (uH)	Inductance tolerance	Test Frequency (kHz)	DC Resistance (Ω) ±20%	Saturation current Isat(mA)		Temperature rise current Irms(mA)	
					Typ.	Max.	Typ.	Max.
FNR4018T-1R0N	1.0	±30%	100	0.030	4800	4400	2500	2000
FNR4018T-1R5N	1.5	±30%	100	0.037	3350	3000	2200	1800
FNR4018T-2R2M	2.2	±20%	100	0.045	3000	2600	1850	1650
FNR4018T-3R3M	3.3	±20%	100	0.070	2450	2100	1550	1230
FNR4018T-4R7M	4.7	±20%	100	0.090	1700	1500	1400	1200
FNR4018T-6R8M	6.8	±20%	100	0.110	1450	1200	1150	1060
FNR4018T-100M	10	±20%	100	0.180	1300	1100	1000	840
FNR4018T-150M	15	±20%	100	0.270	940	850	720	650
FNR4018T-220M	22	±20%	100	0.360	800	700	650	590
FNR4018T-330M	33	±20%	100	0.530	570	520	500	490
FNR4018T-470M	47	±20%	100	0.650	560	480	440	420
FNR4018T-680M	68	±20%	100	1.000	470	410	380	320
FNR4018T-101M	100	±20%	100	1.750	400	320	300	250

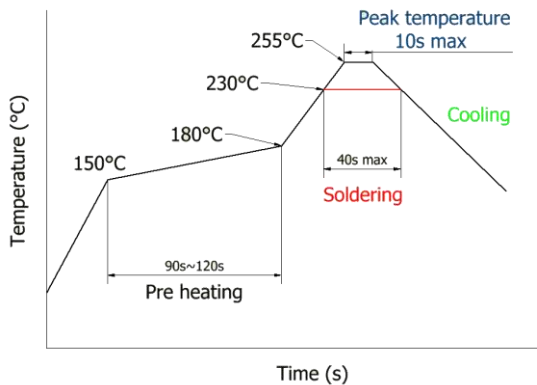
Part No.	Inductance (uH)	Inductance tolerance	Test Frequency (kHz)	DC Resistance (Ω) ±30%	Saturation current Isat(mA)		Temperature rise current Irms(mA)	
					Typ.	Max.	Typ.	Max.
FNR4030T-1R0N	1.0	±30%	100	0.016	5260	5100	4140	4050
FNR4030T-1R5N	1.5	±30%	100	0.020	4840	4700	3340	3200
FNR4030T-2R2N	2.2	±30%	100	0.030	4400	4200	2950	2750
FNR4030T-3R3M	3.3	±20%	100	0.040	3300	3150	2400	2250
FNR4030T-4R7M	4.7	±20%	100	0.060	2900	2850	2000	1900
FNR4030T-5R6M	5.6	±20%	100	0.065	2750	2650	1950	1800
FNR4030T-6R8M	6.8	±20%	100	0.090	2600	2500	1600	1500
FNR4030T-8R2M	8.2	±20%	100	0.090	2100	2000	1600	1500
FNR4030T-100M	10	±20%	100	0.100	1950	1800	1500	1400
FNR4030T-120M	12	±20%	100	0.135	1700	1600	1300	1200
FNR4030T-150M	15	±20%	100	0.190	1650	1550	1110	1050
FNR4030T-180M	18	±20%	100	0.200	1400	1300	1100	1000
FNR4030T-220M	22	±20%	100	0.225	1300	1200	1000	980
FNR4030T-330M	33	±20%	100	0.330	1100	1100	840	840
FNR4030T-390M	39	±20%	100	0.435	1030	1030	730	730
FNR4030T-470M	47	±20%	100	0.445	950	950	720	720
FNR4030T-560M	56	±20%	100	0.555	850	850	650	650
FNR4030T-680M	68	±20%	100	0.868	720	720	520	520
FNR4030T-820M	82	±20%	100	1.060	660	660	470	470
FNR4030T-101M	100	±20%	100	1.150	600	600	450	450
FNR4030T-121M	120	±20%	100	1.350	550	550	420	420
FNR4030T-151M	150	±20%	100	1.800	500	500	350	350
FNR4030T-221M	220	±20%	100	2.500	400	400	300	300
FNR4030T-331M	330	±20%	100	4.000	300	300	250	250
FNR4030T-471M	470	±20%	100	7.200	300	300	200	200
FNR4030T-681M	680	±20%	100	7.580	190	190	140	140

*The saturation current value (Isat) is the DC current value having inductance decrease down to 30% (at 25°C)

*The temperature rise current value (Irms) is the DC current value having temperature increase up to 40°C (at 25°C)

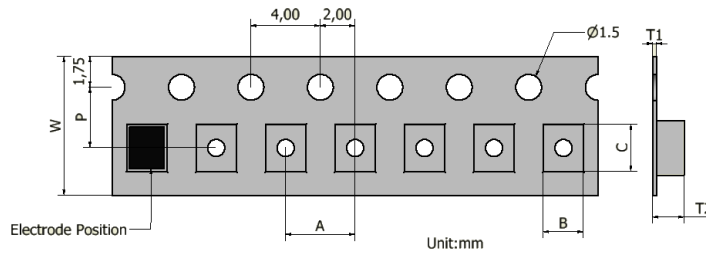
*Rated current: smaller value of either Isat or Irms.

RECOMMENDED SOLDERING CONDITIONS



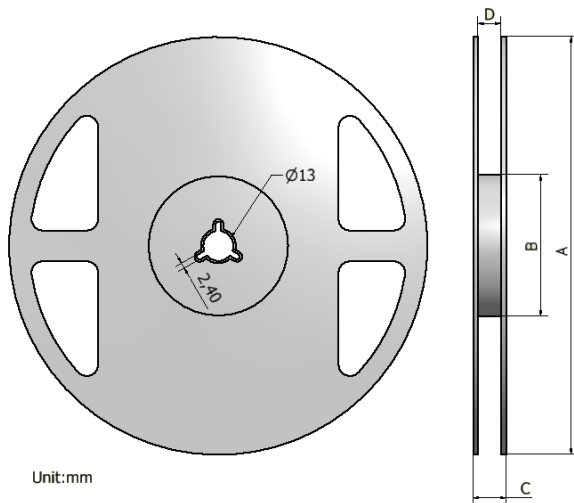
PACKAGE

(1) Taping specifications



Type	W	P	A	B	C	T1	T2
FNR4010	12±0.3	5.5	8.0±0.1	4.2±0.1	4.2±0.1	0.4±0.05	1.4±0.1
FNR4012	12±0.3	5.5	8.0±0.1	4.2±0.1	4.2±0.1	0.4±0.05	1.6±0.1
FNR4018	12±0.3	5.5	8.0±0.1	4.2±0.1	4.2±0.1	0.4±0.05	2.0±0.1
FNR4030	12±0.3	5.5	8.0±0.1	4.2±0.1	4.2±0.1	0.4±0.05	3.2±0.1

(2) Reel Specifications



Label

Wire Wound Power Inductors
 FNR40□□T-□□□M/N
 □□□□PCS
 Lot No. _____
 FUMIWA TECHNICAL CO., LTD.

Type	A	B	C	D	Q'ty/Reel
FNR4010	180±0.1	60±0.1	14.5±0.1	10±0.15	2000
FNR4012	180±0.1	60±0.1	14.5±0.1	10±0.15	2000
FNR4018	330±1.5	75±2.0	17.5±0.5	12.5±0.5	3000
FNR4030	330±1.5	75±2.0	17.5±0.5	12.5±0.5	2000

Type	Q'ty
PCS/Reel	2000~3000
Reel/inner Box	10000~12000
Inner Box/Carton	40000~50000