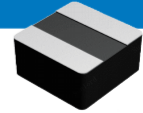


Wire Wound Molded SMD Power Inductors – WT Series



Operating Temp ◆ -55°C ~+155°C (Including self-heating)

Features

- ◆ Extremely low DCR and ultra low AC losses for high switching frequencies (up to 5MHz)
- ◆ Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI)
- ◆ Excellent saturation characteristics
- ◆ Ultra wide temperature range of application(-55°C ~155°C)
- ◆ No thermal aging issues
- ◆ High reliability

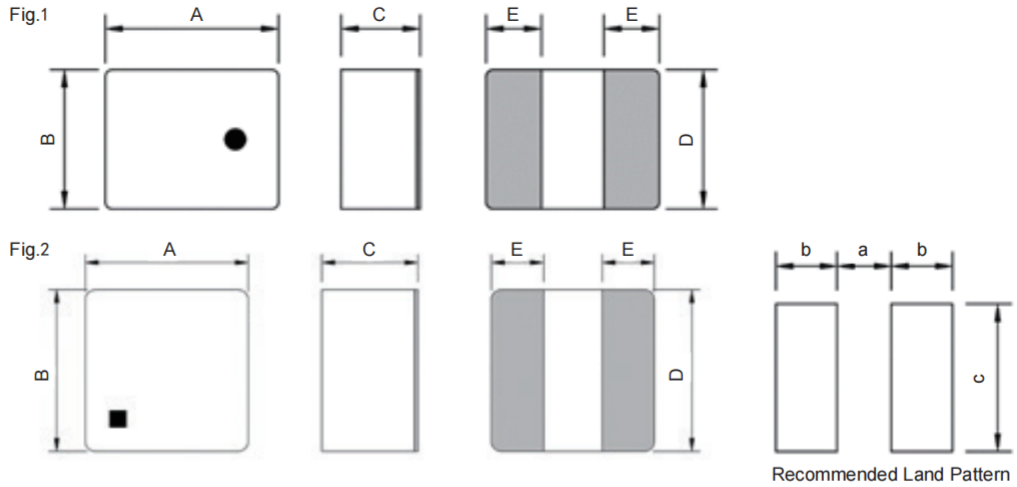
Applications

- ◆ High-end phones, tablets, 5G modules
- ◆ Server, base station, etc.
- ◆ Various DC-DC conversion power modules

Product Identification

1 WT	2 □	3 0430	4 T	5 1R0	6 M	7 T
1 Type WT Molded SMD Power Inductors		2 Feature Type X Standard Type H Special Type		3 External Dimensions(L×W×H) [mm] 201612 2.0×1.6×1.2 252012 2.5×2.0×1.2 322509 3.2×2.5×0.9 322510 3.2×2.5×1.0 322512 3.2×2.5×1.2 323012 3.2×3.0×1.2 323020 3.2×3.0×2.0 0415 4.0×4.0×1.5 0420 4.0×4.0×2.0 0430 4.0×4.0×3.1 0614 6.5×6.5×1.4 0615 6.4×6.6×1.5 0624 7.25×6.6×2.4 0630 7.1×6.6×3.0 0717 7.8×7.8×1.7 1330 12.5×12.5×3.0		
4 Feature Type T TA Internal Code		5 Nominal Inductance Example Nominal Value 1R0 1.0μH 4R7 4.7μH				
6 Inductance Tolerance M ±20%		7 Packing T Tape & Reel				

Shape and Dimensions



Unit: mm

Series	Shape	A	B	C Max.	D Typ.	E	a Typ.	b Typ.	c Typ.
WTH201612T	Fig.1	2.0±0.1	1.6±0.1	1.2	1.60	0.6±0.2	0.7	0.7	1.7
WTXE252012T	Fig.1	2.5±0.2	2.0±0.2	1.2	2.00	0.8±0.2	0.9	0.8	2.0
WTX322509T	Fig.1	3.2±0.2	2.5±0.2	0.9	2.35	0.5±0.3	1.3	0.5	2.5
WTX322510T	Fig.1	3.2±0.15	2.5±0.15	1.0	2.50	1.15±0.2	0.8	1.25	2.6
WTX322512T/TA	Fig.1	3.2±0.15	2.5±0.15	1.2	2.50	1.15±0.15	0.8	1.2	2.5
WTXE322512T	Fig.1	3.2±0.2	2.5±0.2	1.2	2.50	1.15±0.2	0.8	1.2	2.5
WTXE323012T	Fig.1	3.2±0.2	3.0±0.2	1.2	3.00	1.10±0.2	1.0	1.1	3.0
WTX323020T	Fig.2	3.2±0.2	3.0±0.2	2.0	2.85	0.8±0.3	1.3	1.0	3.2
WTH0415T	Fig.2	4.0±0.3	4.0±0.3	1.5	4.1	1.2±0.3	1.5	1.3	4.1
WTH0420T	Fig.2	4.0±0.3	4.0±0.3	2.0	4.1	1.2±0.3	1.5	1.3	4.1
WTHE0420T-Y04	Fig.2	4.0±0.3	4.0±0.3	2.0	4.1	1.2±0.3	1.5	1.3	4.1
WTX0430T	Fig.2	4.0±0.3	4.0±0.3	3.1	4.1	1.2±0.3	1.5	1.3	4.1
WTX0614H	Fig.2	6.5±0.2	6.5±0.2	1.4	6.0	1.8±0.2	2.6	2.1	6.4
WTX0615T	Fig.2	6.4±0.2	6.6±0.2	1.5	6.6	2.1±0.2	1.8	2.5	6.8
WTX0624H	Fig.2	7.25±0.3	6.6±0.2	2.4	3.0	2.0±0.2	3.7	2.35	3.5
WTX0630H	Fig.2	7.1±0.3	6.6±0.2	3.0	3.0	1.6±0.3	3.7	2.35	3.5
WTX0717T	Fig.2	7.8±0.2	7.8±0.2	1.7	7.8	2.6±0.2	2.35	2.85	8.0
WTXE1330T	Fig.2	12.5±0.5	12.5±0.5	3.0	12.5	4.0±0.5	4.3	4.2	12.7

Specifications

WTH201612T Series

Part Number	Inductance	DC Resistance		Self-resonant Frequency	Saturation Current		Heat Rating Current	
	@1MHz, 1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ		MHz	A		A	
Symbol	L	DCR		S.R.F	Isat		Irms	
WTH201612TA1R0MT	1.0±20%	38.0	31.0	60	4.00	4.40	3.90	4.30

WTXE252012T Series

Part Number	Inductance	DC Resistance		Self-resonant Frequency	Saturation Current		Heat Rating Current	
	@1MHz, 1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ		MHz	A		A	
Symbol	L	DCR		S.R.F	Isat		Irms	
WTXE252012TR22MT	0.22±20%	8.0	6.0	95	10.00	11.50	5.50	6.50
WTXE252012TA1R0MT	1.0±20%	29	26	49	3.40	3.70	5.00	5.50
WTXE252012TA1R5MT	1.5±20%	44	40	33	3.20	3.50	4.50	5.00

Specifications

WTX322509T Series

Part Number	Inductance	DC Resistance		Self-resonant Frequency	Saturation Current		Heat Rating Current	
	@1MHz, 1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ		MHz	A		A	
Symbol	L	DCR		S.R.F	Isat		Irms	
WTX322509TR80NMT	0.08 ± 20%	4.2	3.3	242	14.50	16.50	7.60	8.60

WTX322510T Series

Part Number	Inductance	DC Resistance		Self-resonant Frequency	Saturation Current		Heat Rating Current	
	@1MHz, 1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ		MHz	A		A	
Symbol	L	DCR		S.R.F	Isat		Irms	
WTX322510T150MT	15 ± 20%	450	400	9	1.10	1.30	1.27	0.85

WTX322512T Series

Part Number	Inductance	DC Resistance		Self-resonant Frequency	Saturation Current		Heat Rating Current	
	@1MHz, 1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ		MHz	A		A	
Symbol	L	DCR		S.R.F	Isat		Irms	
WTX322512TR10MT	0.10 ± 20%	4.2	3.3	224	13.00	15.50	7.60	8.60
WTX322512TR47MT	0.47 ± 20%	14	11.5	80	9.00	9.90	8.00	8.80
WTX322512TR0MT	1.0 ± 20%	27.5	23	45	6.40	7.10	5.00	5.50

WTX322512TA Series

Part Number	Inductance	DC Resistance		Self-resonant Frequency	Saturation Current		Heat Rating Current	
	@1MHz, 1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ		MHz	A		A	
Symbol	L	DCR		S.R.F	Isat		Irms	
WTX322512TAR47MT	0.47 ± 20%	24	20	75	9.00	9.90	6.10	6.80
WTX322512TA1R0MT	1.0 ± 20%	36	30	43	6.40	7.10	4.00	4.40

WTXE322512T Series

Part Number	Inductance	DC Resistance		Self-resonant Frequency	Saturation Current		Heat Rating Current	
	@1MHz, 1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ		MHz	A		A	
Symbol	L	DCR		S.R.F	Isat		Irms	
WTXE322512TR47MT	0.47 ± 20%	13.0	11.8	66	6.50	7.20	7.50	8.30
WTXE322512TR68MT	0.68 ± 20%	16.5	15.0	50	5.50	6.50	6.60	7.30

WTXE323012T Series

Part Number	Inductance	DC Resistance		Self-resonant Frequency	Saturation Current		Heat Rating Current	
	@1MHz, 1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ		MHz	A		A	
Symbol	L	DCR		S.R.F	Isat		Irms	
WTXE323012TR47MT	0.47 ± 20%	12.8	11.6	61	8.00	9.00	7.70	8.50
WTXE323012TR68MT	0.68 ± 20%	16.0	14.5	49	7.00	7.70	7.00	7.50

Specifications

WTX323020T Series

Part Number	Inductance	DC Resistance		Self-resonant Frequency	Saturation Current		Heat Rating Current	
	@1MHz, 1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
Units	μH	m Ω		MHz	A		A	
Symbol	L	DCR		S.R.F	Isat		Irms	
WTX323020T1R0MTR01	1.0 $\pm$ 20%	14.8	12.8	25	6.20	8.50	7.50	10.00

WTH0415T Series

Part Number	Inductance	DC Resistance		Self-resonant Frequency	Saturation Current		Heat Rating Current	
	@1MHz, 1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
Units	μH	m Ω		MHz	A		A	
Symbol	L	DCR		S.R.F	Isat		Irms	
WTH0415TR33MT	0.33 $\pm$ 20%	4.8	4.4	83	13.00	14.50	13.90	16.00
WTH0415TR47MT	0.47 $\pm$ 20%	6.1	5.5	64	9.50	11.50	11.30	13.00
WTH0415TR68MT	0.68 $\pm$ 20%	9.2	8.3	52	8.00	9.60	9.60	11.00
WTH0415T1R0MT	1.0 $\pm$ 20%	12.5	11.3	40	6.00	7.40	8.30	9.50

WTH0420T Series

Part Number	Inductance	DC Resistance		Self-resonant Frequency	Saturation Current		Heat Rating Current	
	@1MHz, 1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
Units	μH	m Ω		MHz	A		A	
Symbol	L	DCR		S.R.F	Isat		Irms	
WTH0420TR33MT	0.33 $\pm$ 20%	3.6	3.0	79	15.70	18.10	19.90	23.00
WTH0420TR47MT	0.47 $\pm$ 20%	4.5	4.1	61	11.20	13.40	17.00	19.70
WTH0420TR68MT	0.68 $\pm$ 20%	6.4	5.8	50	9.80	12.00	12.80	14.80
WTH0420TR82MT	0.82 $\pm$ 20%	6.4	5.8	40	8.20	10.40	12.80	14.80
WTH0420T1R0MT	1.0 $\pm$ 20%	8.4	7.6	39	7.60	9.00	11.70	13.50
WTH0420T1R5MT	1.5 $\pm$ 20%	13.6	12.4	32	6.30	7.50	9.50	11.00
WTH0420T2R2MT	2.2 $\pm$ 20%	22.7	20.6	26	5.60	6.40	7.80	9.00
WTH0420T3R3MT	3.3 $\pm$ 20%	28.6	26.0	18	4.70	5.40	6.60	7.30

WTHE0420T-Y04 Series

Part Number	Inductance	DC Resistance		Self-resonant Frequency	Saturation Current		Heat Rating Current	
	@1MHz, 1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
Units	μH	m Ω		MHz	A		A	
Symbol	L	DCR		S.R.F	Isat		Irms	
WTHE0420TR47MTY04	0.47 $\pm$ 20%	4.8	4.2	58	8.50	10.00	16.00	18.00
WTHE0420TR68MTY04	0.68 $\pm$ 20%	6.4	5.8	48	7.80	9.00	14.00	16.00
WTHE0420T1R0MTY04	1.0 $\pm$ 20%	8.4	7.4	38	6.50	8.00	12.00	14.00
WTHE0420T1R2MTY04	1.2 $\pm$ 20%	9.9	9.0	35	5.40	6.20	10.50	12.50

WTX0430T Series

Part Number	Inductance	DC Resistance		Self-resonant Frequency	Saturation Current		Heat Rating Current	
	@1MHz, 1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
Units	μH	m Ω		MHz	A		A	
Symbol	L	DCR		S.R.F	Isat		Irms	
WTX0430TR33MT	0.33 $\pm$ 20%	2.2	2.0	76.4	18.80	21.40	19.40	22.40
WTX0430TR68MT	0.68 $\pm$ 20%	3.9	3.5	50.0	14.30	16.30	14.10	16.20
WTX0430T1R0MT	1.0 $\pm$ 20%	5.7	5.2	42.7	11.90	13.50	12.60	14.50

Specifications

WTX0430T Series

Part Number	Inductance	DC Resistance		Self-resonant Frequency	Saturation Current		Heat Rating Current	
	@1MHz,1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ		MHz	A		A	
Symbol	L	DCR		S.R.F	Isat		Irms	
WTX0430T2R2MT	2.2±20%	11.8	10.7	24.5	7.10	8.10	9.00	10.30
WTX0430T3R3MT	3.3±20%	17.7	16.1	21.6	5.30	5.80	8.00	8.30
WTX0430T4R7MT	4.7±20%	23.4	21.3	18.6	4.80	5.50	6.10	7.00
WTX0430T6R8MT	6.8±20%	37.4	34.0	14.3	4.10	4.80	4.60	5.30

WTX0614H Series

Part Number	Inductance	DC Resistance		Self-resonant Frequency	Saturation Current		Heat Rating Current	
	@1MHz,1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ		MHz	A		A	
Symbol	L	DCR		S.R.F	Isat		Irms	
WTX0614H2R2LT	2.2±15%	34	30	31.2	6.00	6.60	4.20	4.60
WTX0614H3R3KT	3.3±10%	55	50	14.9	5.00	5.50	3.50	3.80

WTX0615T Series

Part Number	Inductance	DC Resistance		Self-resonant Frequency	Saturation Current		Heat Rating Current	
	@1MHz,1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ		MHz	A		A	
Symbol	L	DCR		S.R.F	Isat		Irms	
WTX0615T2R28MT	0.28±20%	4.5	3.7	57.3	23.00	26.50	18.00	20.00
WTX0615T1R0MT	1.0±20%	11.5	9.5	25.3	11.00	13.00	11.50	12.80

WTX0624H Series

Part Number	Inductance	DC Resistance		Self-resonant Frequency	Saturation Current		Heat Rating Current	
	@1MHz,1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ		MHz	A		A	
Symbol	L	DCR		S.R.F	Isat		Irms	
WTX0624H-R56MTW01	0.56±20%	6.5	5.5	40.5	22.00	25.00	11.70	13.00

WTX0630H Series

Part Number	Inductance	DC Resistance		Self-resonant Frequency	Saturation Current		Heat Rating Current	
	@1MHz,1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ		MHz	A		A	
Symbol	L	DCR		S.R.F	Isat		Irms	
WTX0630HR10MT	0.1±20%	0.8	0.72	107.1	64.00	73.00	27.00	40.00

WTX0717T Series

Part Number	Inductance	DC Resistance		Self-resonant Frequency	Saturation Current		Heat Rating Current	
	@1MHz,1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ		MHz	A		A	
Symbol	L	DCR		S.R.F	Isat		Irms	
WTX0717T1R4MT	1.4±20%	10.8	9.0	17.9	12.00	14.00	11.70	13.00

Specifications

WTXE1330T Series

Part Number	Inductance	DC Resistance		Self-resonant Frequency	Saturation Current		Heat Rating Current	
	@1MHz, 1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
Units	μH	m Ω		MHz	A		A	
Symbol	L	DCR		S.R.F	Isat		I _{rms}	
WTXE1330T1R0MT	1.0 $\pm$ 20%	2.91	2.47	16.1	25.00	30.00	17.00	20.00
WTXE1330T1R5MT	1.5 $\pm$ 20%	3.0	2.5	10.7	21.00	23.00	17.00	20.00

Note1: Inductance with tolerance of $\pm 20\%$ or other value is also available. Please contact your local sales.

※1: All test data is referenced to 25°C ambient;

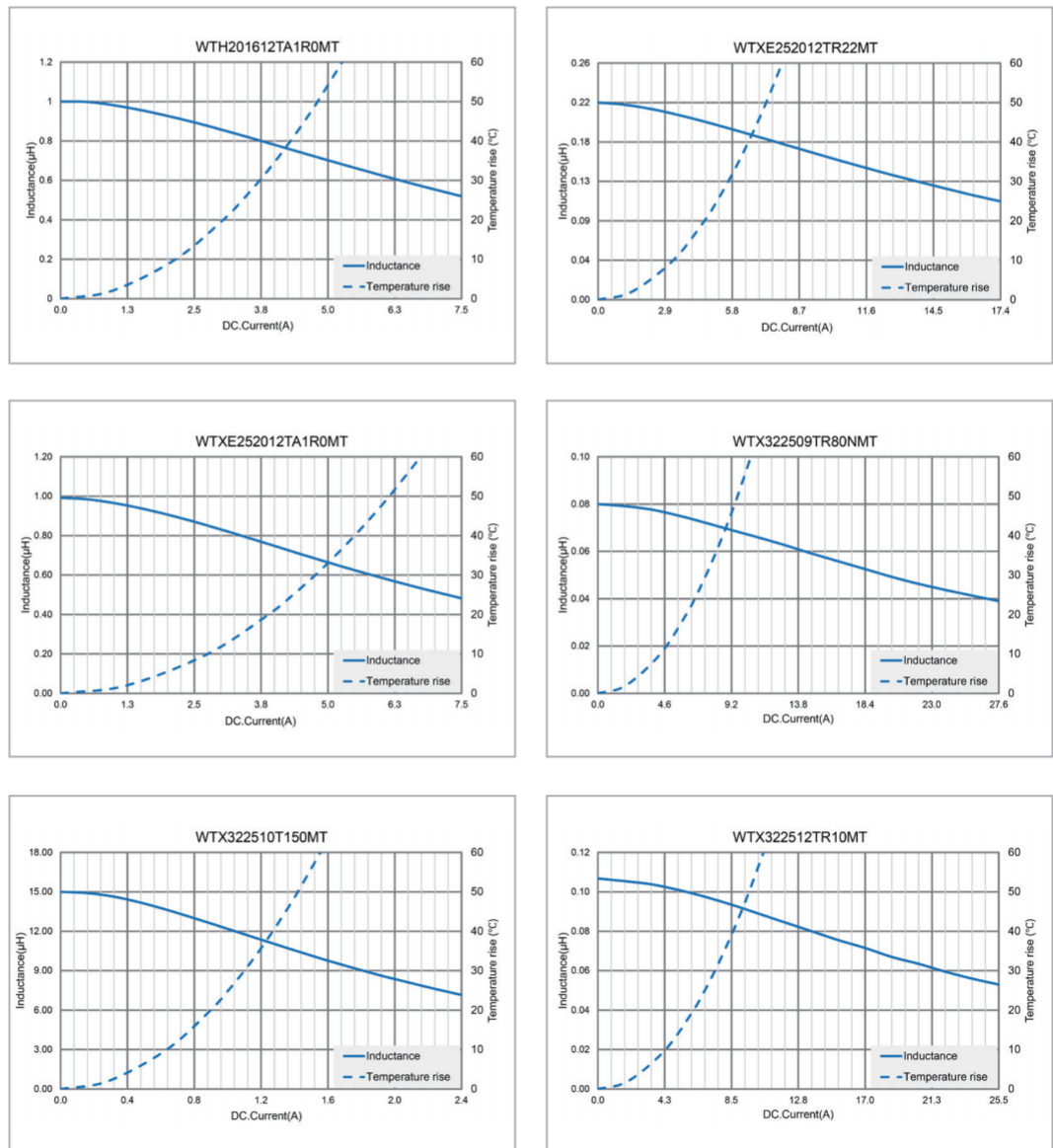
※2: Rated current: Isat or I_{rms}, whichever is smaller;

※3: Isat: DC current at which the inductance drops approximate 30% from its value without current;

※4: I_{rms}: DC current that causes the temperature rise ($\Delta T=40^\circ\text{C}$) from 25°C ambient.

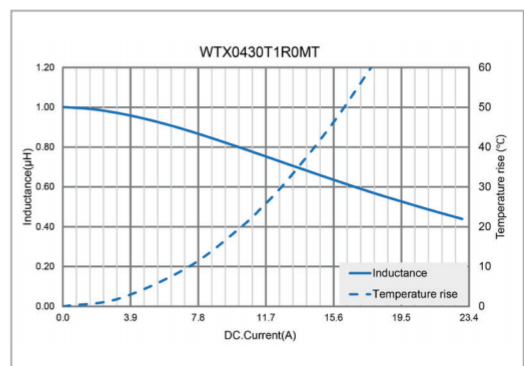
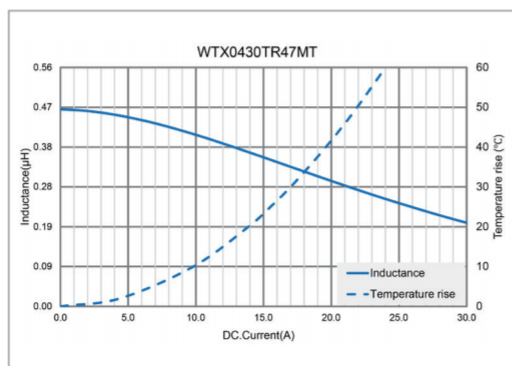
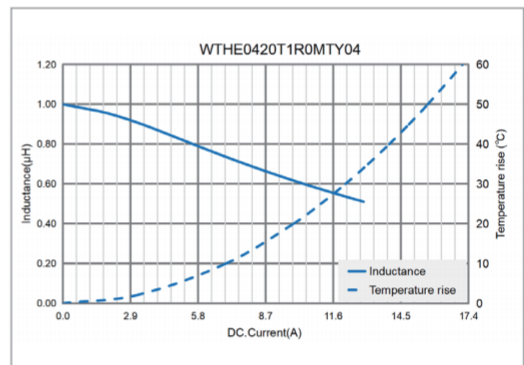
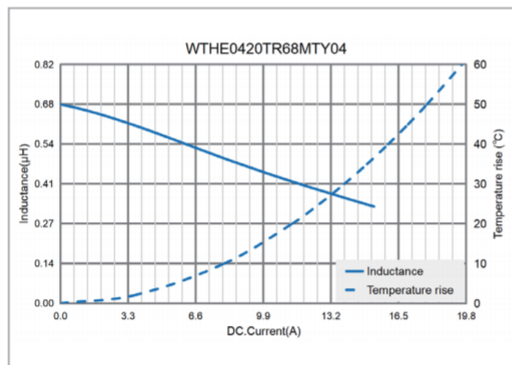
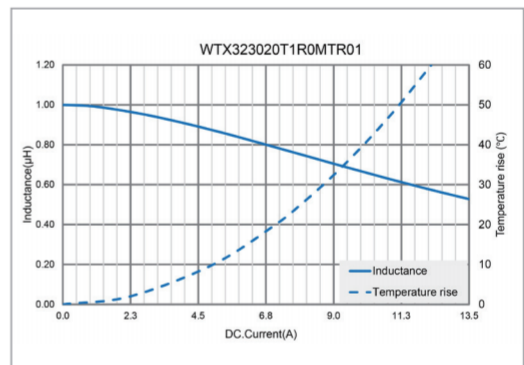
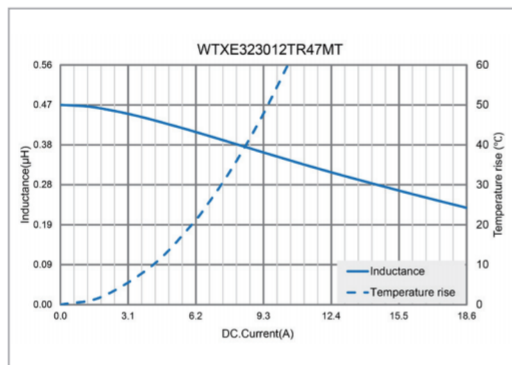
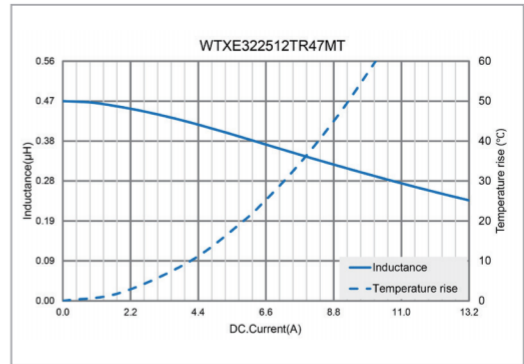
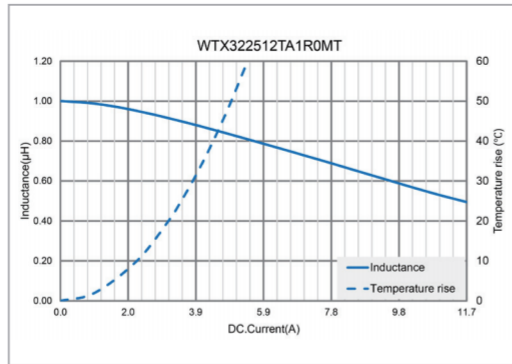
Typical
Electrical
Characteristics

Inductance & Temperature vs. DC Current Characteristics



Typical Electrical Characteristics

Inductance & Temperature vs. DC Current Characteristics



**Typical
Electrical
Characteristics**

Inductance & Temperature vs. DC Current Characteristics

