

Molding Power Inductors

THTFA0402 Series

TOP-EMC

Features

- Small size ,High current and very low loss
- Ultra low buzz noise, due to composite construction
- RoHS, Halogen Free and REACH Compliance
- Soft saturation characteristic to withstand high current spikes
- High reliability-Reliability tests comply with AEC-Q200



Applications

- DC/DC converters
- Car Navigation Systems
- Battery powered devices
- Meters/Alarms
- PDA/notebook/desktop devices

Product Identification

THTFA 0402 D 1R0 M T
① ② ③ ④ ⑤ ⑥

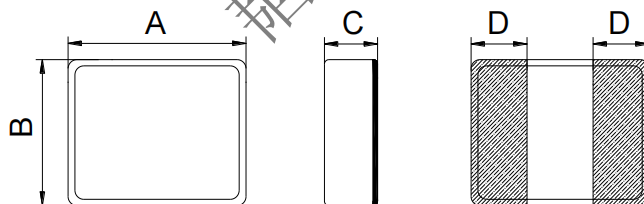
- ① Type : THTFA
- ② External Dimensions (L×H) [mm]= 0402
- ③ Feature Type : Differential
- ④ Nominal Inductance : 1R0=1.0μH
- ⑤ Inductance Tolerance : K=±10%
M=±20%
N=±30%
- ⑥ Packing T=Tape Carrier Package

Specifications

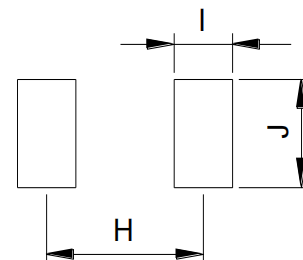
Part Number	Inductance (μH) $\pm 20\%$ 1MHz/0.1V	DCR ($\text{m}\Omega$) Max.	I sat (A)Typ.	I rms (A)Typ.
THTFA0402DR47MT	0.47	4.8	17.2	20.1
THTFA0402DR60MT	0.6	5.7	12.0	18.5
THTFA0402DR68MT	0.68	6.8	11.0	16.7
THTFA0402D1R0MT	1.0	8.5	8.8	12.4
THTFA0402D1R5MT	1.5	14.3	9.0	11.1
THTFA0402D2R2MT	2.2	20.0	7.5	9.0
THTFA0402D3R3MT	3.3	31.5	7.0	7.3
THTFA0402D4R7MT	4.7	47.3	6.0	5.6
THTFA0402D5R6MT	5.6	53.6	4.0	5.3
THTFA0402D6R8MT	6.8	85.0	5.0	4.0
THTFA0402D8R2MT	8.2	78.1	4.5	4.1
THTFA0402D100MT	10	115.0	4.0	2.7
THTFA0402D150MT	15	242.0	2.2	1.8

- (1) I sat Current: DC current (A) that will cause L0 to drop approximately 30 %
- (2) I rms : DC current (A) that will cause an approximate ΔT of 40 °C (reference ambient temperature is 25°C)
- (3) Operating Temperature: -40°C up to +125°C
- (4) Storage Temperature: -20°C up to +40°C, 75% RH max.
- (5) Absolute maximum voltage: DC 60V

Shape And Dimensions



Recommended Pattern

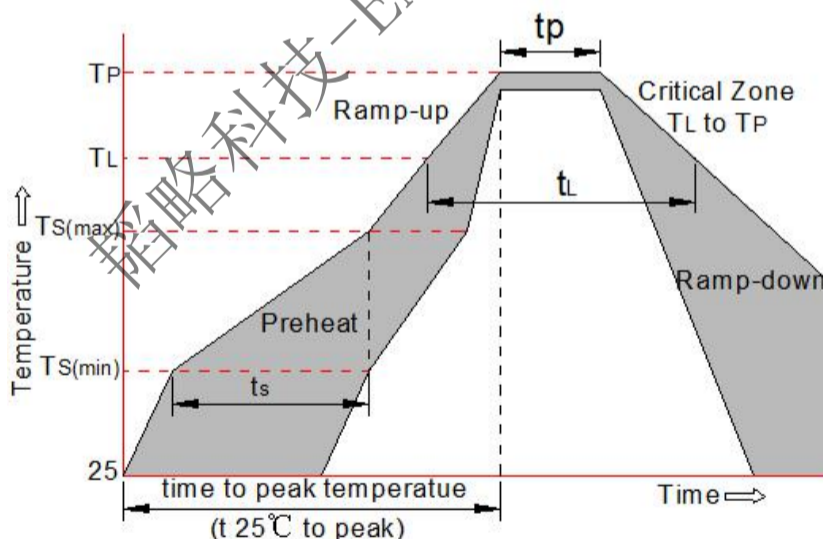


Dimensions In mm

SYM	A	B	C	D	H	I	J
DIM	4.0	4.0	2.1	1.1	3.5	1.5	4.5
TOLE	± 0.3	± 0.3	Max	± 0.3	Typ	Typ	Typ

Recommended Soldering Technologies

Reflow Condition		Pb-Free Assembly (see as below)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150°C
	-Temperature Max($T_{s(max)}$)	+200°C
	-Time (Min to Max) (t_s)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3°C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature(T_L) (Liquid us)	+217°C
	-Temperature(t_L)	60-90 secs .
Peak Temp (T_p)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp (T_P)		8 min. Max
Do not exceed		+260°C



CONTACT INFORMATION

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