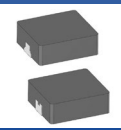


Molded Inductor



AMPLA1004S

Request Samples



Check Inventory



11.0 x 10.0 x 3.8 mm
RoHS/RoHS II Compliant
MSL Level = 1

Features

- Shielded construction
- Soft saturation
- High current density
- Designed for switching frequencies between 100KHz-2MHz
- Automotive option available upon request

Applications

- Body electronics and comfort system
- Infotainment and entertainment
- Electric vehicles
- Lighting
- Solar inverters and power
- Industrial and robotics
- Medium and high-power switch mode power supplies.

Electrical Specifications

Part Number	Inductance (uH)	Tolerance (%)	Irms (A)	Isat (A)	DC Resistance (mΩ)		Type
					Typ	Max	
AMPLA1004S-R15NT	0.15	30	43	75	0.5	0.6	Non-Lead Frame
AMPLA1004S-R19NT	0.19	30	36	70	0.6	0.9	Non-Lead Frame
AMPLA1004S-R22MT	0.22	20	35	60	0.8	1.0	Non-Lead Frame
AMPLA1004S-R24MT	0.24	20	34	60	0.8	1.0	Non-Lead Frame
AMPLA1004S-R27MT	0.27	20	33	60	0.82	1.0	Non-Lead Frame
AMPLA1004S-R30MT	0.30	20	32	60	0.94	1.1	Non-Lead Frame
AMPLA1004S-R36MT	0.36	20	31	60	1.05	1.2	Non-Lead Frame
AMPLA1004S-R39MT	0.39	20	30	60	1.1	1.3	Non-Lead Frame
AMPLA1004S-R45MT	0.45	20	29	45	1.3	1.5	Non-Lead Frame
AMPLA1004S-R47MT	0.47	20	28	43	1.3	1.5	Non-Lead Frame
AMPLA1004S-R56MT	0.56	20	25	40	1.6	1.8	Non-Lead Frame
AMPLA1004S-R68MT	0.68	20	22	39	2.4	2.7	Non-Lead Frame
AMPLA1004S-R75MT	0.75	20	22	39	2.4	2.7	Non-Lead Frame
AMPLA1004S-R88MT	0.88	20	20	38	2.5	2.9	Non-Lead Frame
AMPLA1004S-1R0MT	1	20	18	36	3.0	3.3	Non-Lead Frame
AMPLA1004S-1R2MT	1.2	20	17	33	3.3	3.8	Non-Lead Frame
AMPLA1004S-1R5MT	1.5	20	16	33	4.0	4.6	Non-Lead Frame
AMPLA1004S-1R8MT	1.8	20	14	30	5.3	6.4	Lead Frame
AMPLA1004S-2R2MT	2.2	20	12	27	6.5	7.0	Lead Frame
AMPLA1004S-2R5MT	2.5	20	11.5	23	7.9	8.7	Lead Frame
AMPLA1004S-3R0MT	3.0	20	11.5	21	10	11.5	Lead Frame
AMPLA1004S-3R3MT	3.3	20	11	20	10.8	11.8	Lead Frame
AMPLA1004S-3R9MT	3.9	20	10.5	19	12.6	14.5	Lead Frame
AMPLA1004S-4R0MT	4.0	20	10.2	18	13	15	Lead Frame
AMPLA1004S-4R7MT	4.7	20	10	17	15	15.5	Lead Frame
AMPLA1004S-5R6MT	5.6	20	9.0	14	17	19.3	Lead Frame
AMPLA1004S-6R2MT	6.2	20	8.7	13.7	17.2	21.3	Lead Frame
AMPLA1004S-6R8MT	6.8	20	8.5	13.5	17.5	23.3	Lead Frame
AMPLA1004S-7R3MT	7.3	20	8.3	13	19	21.8	Lead Frame
AMPLA1004S-8R2MT	8.2	20	8.0	12.5	20	22.5	Lead Frame
AMPLA1004S-100MT	10	20	7.5	12	27	30	Lead Frame
AMPLA1004S-150MT	15	20	6.25	10	40	45	Lead Frame
AMPLA1004S-180MT	18	20	5.5	9.0	56	62	Lead Frame
AMPLA1004S-220MT	22	20	5.0	7.0	64	74	Lead Frame
AMPLA1004S-270MT	27	20	4.0	6.0	86	100	Lead Frame
AMPLA1004S-330MT	33	20	3.5	5.0	92	112	Lead Frame
AMPLA1004S-470MT	47	20	3.0	4.5	145	167	Lead Frame
AMPLA1004S-680MT	68	20	2.0	3.0	205	240	Lead Frame



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Molded Inductor



AMPLA1004S

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11.0 x 10.0 x 3.8 mm
RoHS/RoHS II Compliant
MSL Level = 1

Test Conditions:

Inductance: 100 KHz, 1 V, 0 ADC

Isat: DC current at which the inductance drops by 30%.

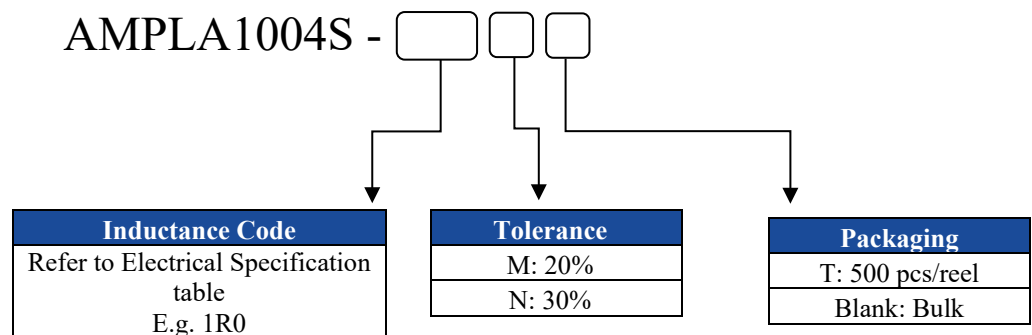
Irms: DC current that causes the temperature rise (ΔT , approximate 40 °C) from 25°C ambient.

Operating Temperature: -55°C ~ +125°C. (including self-temperature rise)

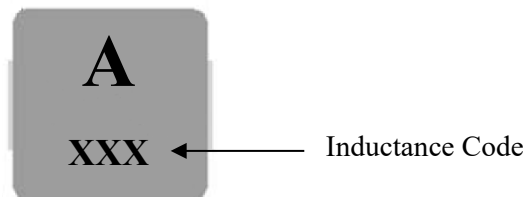
Storage Condition: -55°C ~ +125°C (on board), -10°C ~ +40°C (with packaging) and R.H. 60 max.

AMPLA1004S Series is **RoHS Compliant and Pb free.**

Part Identification

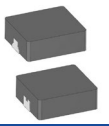


Marking



Marking Method = Ink Marking

Molded Inductor



AMPLA1004S

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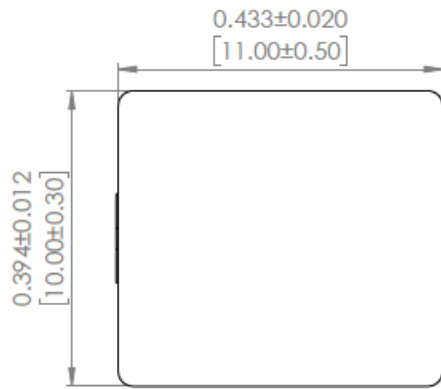


Check Inventory



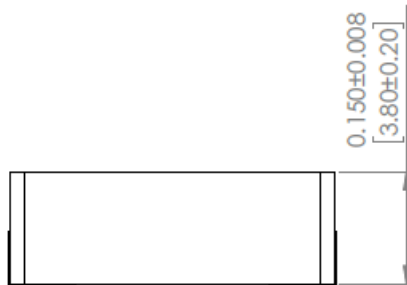
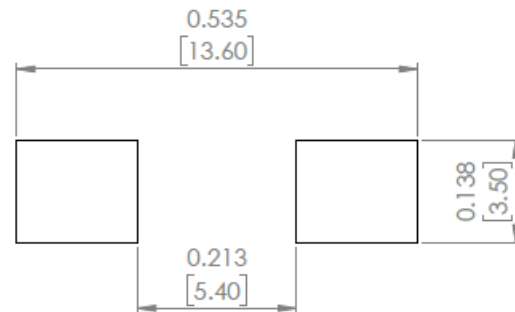
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RoHS/RoHS II Compliant
MSL Level = 1

Mechanical Specifications

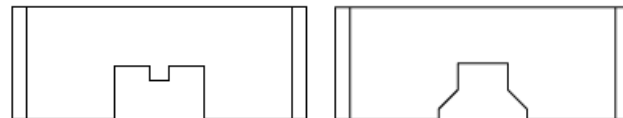


TOP VIEW

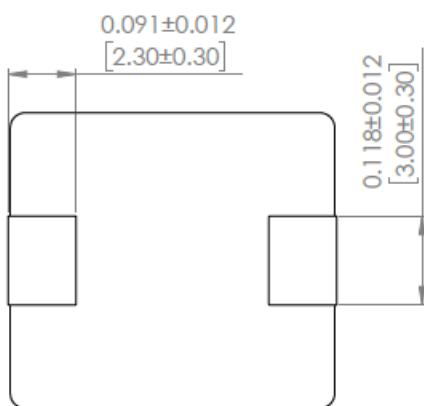
RECOMMENDED LAND PATTERN



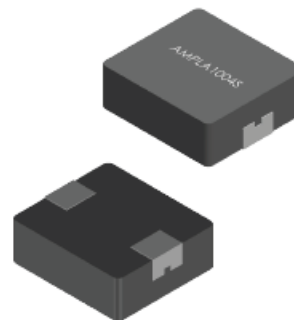
FRONT VIEW



SIDE VIEW



BOTTOM VIEW



Dimensions: inch/[mm]

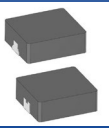


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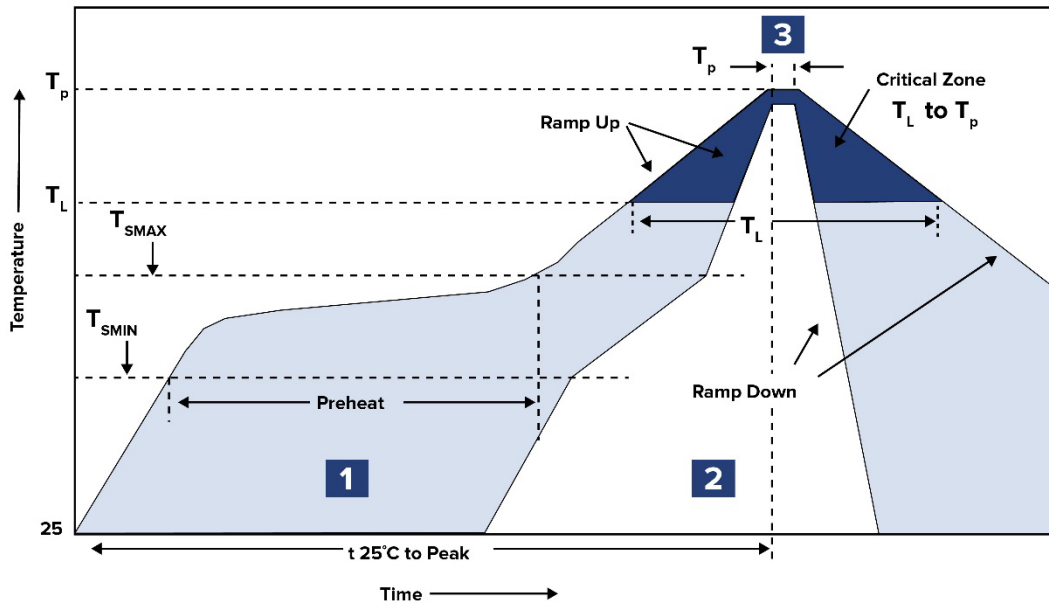


Check Inventory



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RoHS/RoHS II Compliant
MSL Level = 1

Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 180 sec.
2	Reflow	T_L 217°C	60 ~ 150 sec.
3	Peak heat	T_P 260°C	10 sec. MAX

Ref. Solder paste: Sn/3.0Ag/0.5Cu

Ramp up rate: 3°C/s Max.

Ramp down rate: 6°C/s Max.



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