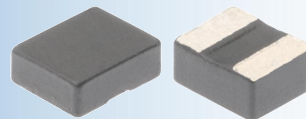


SMD Molding Power Inductor

ACKST Series



Operating Temp. : -55°C~+150°C

FEATURES:

- ⊙ Metal material for large current and low loss
- ⊙ Closed magnetic circuit design reduces leakage flux
- ⊙ Halogen free, RoHS compliant
- ⊙ AEC-Q200 verified

APPLICATIONS:

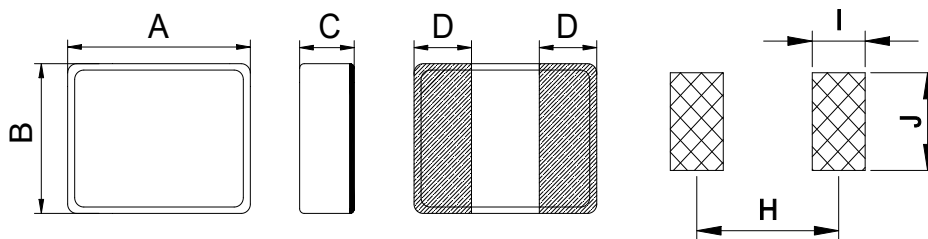
- ⊙ ADAS, Infotainment system
- ⊙ LED lighting
- ⊙ Airbag
- ⊙ Internet of vehicle

PART NUMBERING SYSTEM:

ACKST 201612 - 1uH / M □□□

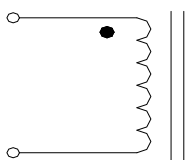
- | | | | | |
|--------------------|------------------------|---------------------|-------------------------|---------------|
| ① | ② | ③ | ④ | ⑤ |
| ①: Automobile Type | ②: External Dimensions | ③: Inductance Value | ④: Inductance Tolerance | ⑤: Inter Code |

SHAPES AND DIMENSIONS: (Unit:mm)



SERIES	A	B	C	D	H	I	J
ACKST201210	2.0±0.2	1.2±0.2	1.0 Max	0.5±0.2	1.5	1.0	1.5
ACKST201610	2.0±0.2	1.6±0.2	1.0 Max	0.5±0.2	1.5	1.0	1.8
ACKST201612	2.0±0.2	1.6±0.2	1.2 Max	0.5±0.2	1.5	1.0	1.8
ACKST252012	2.5±0.2	2.0±0.2	1.2 Max	0.8±0.3	2.0	1.2	2.2
ACKST322512	3.2±0.2	2.5±0.2	1.2 Max	0.8±0.3	2.5	1.2	2.9
ACKST353220	3.5±0.2	3.2±0.2	2.0 Max	0.7±0.2	3.0	1.0	3.5

SCHEMATIC:



ACKST201210 Series

SPECIFICATION TABLE:

Part No.	Inductance (uH)	DCR (mΩ) @25°C		Saturation Current DC Amps. Isat(A)		Heat Rating Current DC Amps. Irms(A)	
		Typ.	Max.	Max.	Typ.	Max.	Typ.
ACKST201210-1uH/M	1±20%	80.0	90.0	3.5	4.0	2.2	2.6
ACKST201210L-1uH/M	1±20%	67.0	79.0	3.6	4.0	2.6	3.2
ACKST201210-2.2uH/M	2.2±20%	180.0	210.0	2.0	2.5	1.3	1.5

ACKST201610 Series

SPECIFICATION TABLE:

Part No.	Inductance (uH)	DCR (mΩ) @25°C		Saturation Current DC Amps. Isat(A)		Heat Rating Current DC Amps. Irms(A)	
		Typ.	Max.	Max.	Typ.	Max.	Typ.
ACKST201610-0.33uH/M	0.33±20%	17.0	20.0	6.2	7.0	5.3	5.8
ACKST201610-0.47uH/M	0.47±20%	23.0	28.0	5.0	5.6	4.5	5.0
ACKST201610-1uH/M	1±20%	43.0	49.0	4.0	4.2	3.4	4.0
ACKST201610-1.5uH/M	1.5±20%	66.0	74.0	3.2	3.5	2.8	3.2
ACKST201610-2.2uH/M	2.2±20%	94.0	110.0	2.7	3.0	2.5	2.7
ACKST201610-3.3uH/M	3.3±20%	210.0	250.0	1.8	2.1	1.3	1.5
ACKST201610-4.7uH/M	4.7±20%	250.0	280.0	1.7	2.0	1.2	1.4
ACKST201610-6.8uH/M	6.8±20%	433.0	485.0	1.2	1.5	0.8	1.0

ACKST201612 Series

SPECIFICATION TABLE:

Part No.	Inductance (uH)	DCR (mΩ) @25°C		Saturation Current DC Amps. Isat(A)		Heat Rating Current DC Amps. Irms(A)	
		Typ.	Max.	Max.	Typ.	Max.	Typ.
ACKST201612-0.24uH/M	0.24±20%	14.0	17.0	6.0	6.6	5.5	6.0
ACKST201612L-0.24uH/M	0.24±20%	11.4	13.2	7.0	8.0	6.6	7.2
ACKST201612-0.33uH/M	0.33±20%	18.0	22.0	5.5	6.0	5.0	5.5
ACKST201612-0.47uH/M	0.47±20%	17.0	21.0	6.0	6.5	4.0	4.5
ACKST201612-0.56uH/M	0.56±20%	29.0	35.0	3.8	4.4	3.6	4.0
ACKST201612-0.68uH/M	0.68±20%	31.0	40.0	3.6	4.1	3.4	3.9
ACKST201612-1uH/M	1±20%	41.0	48.0	3.3	3.8	2.7	3.1
ACKST201612H-1uH/M	1±20%	41.0	48.0	3.5	4.0	3.0	3.4
ACKST201612-1.5uH/M	1.5±20%	67.0	80.0	2.8	3.2	2.3	2.5
ACKST201612-2.2uH/M	2.2±20%	105.0	120.0	2.5	2.8	1.7	2.0
ACKST201612-3.3uH/M	3.3±20%	210.0	250.0	1.5	1.8	1.2	1.3
ACKST201612-4.7uH/M	4.7±20%	315.0	378.0	1.2	1.4	1.0	1.2
ACKST201612-6.8uH/M	6.8±20%	560.0	670.0	1.0	1.1	0.7	0.8
ACKST201612-10uH/M	10±20%	710.0	850.0	0.8	0.9	0.5	0.6

ACKST252012 Series

SPECIFICATION TABLE:

Part No.	Inductance (uH)	DCR (mΩ) @25°C		Saturation Current DC Amps. Isat(A)		Heat Rating Current DC Amps. Irms(A)	
		Typ.	Max.	Max.	Typ.	Max.	Typ.
ACKST252012-0.15uH/M	0.15±20%	10.6	12.8	8.7	10.2	5.8	6.5
ACKST252012-0.22uH/M	0.22±20%	11.2	13.5	8.0	9.0	5.7	6.3
ACKST252012-0.33uH/M	0.33±20%	16.0	19.0	6.6	7.5	5.6	6.4
ACKST252012-0.47uH/M	0.47±20%	21.0	24.0	5.7	6.5	4.2	4.7
ACKST252012L-0.47uH/M	0.47±20%	15.0	18.0	5.6	6.2	5.6	6.2
ACKST252012-0.68uH/M	0.68±20%	30.0	37.0	4.8	5.3	3.5	4.1
ACKST252012-1uH/M	1±20%	32.0	36.0	4.3	4.8	3.6	4.1
ACKST252012L-1uH/M-G02	1±20%	28.0	32.0	4.3	4.8	4.3	4.6
ACKST252012H-1uH/M	1±20%	37.0	45.0	5.8	6.3	4.1	4.4
ACKST252012-1.5uH/M	1.5±20%	46.0	53.0	3.6	4.2	3.4	3.7
ACKST252012-2.2uH/M	2.2±20%	70.0	84.0	3.0	3.5	2.4	2.7
ACKST252012-3.3uH/M	3.3±20%	100.0	120.0	2.2	2.8	1.7	2.0
ACKST252012-4.7uH/M	4.7±20%	165.0	200.0	2.0	2.2	1.4	1.7
ACKST252012-6.8uH/M	6.8±20%	330.0	400.0	1.6	1.8	1.0	1.2
ACKST252012-10uH/M	10±20%	440.0	530.0	1.3	1.5	0.8	1.0

ACKST322512 Series

SPECIFICATION TABLE:

Part No.	Inductance (uH)	DCR (mΩ) @25°C		Saturation Current DC Amps. Isat(A)		Heat Rating Current DC Amps. Irms(A)	
		Typ.	Max.	Max.	Typ.	Max.	Typ.
ACKST322512-0.15uH/M	0.15±20%	10.0	12.0	10.0	11.6	6.0	6.8
ACKST322512-0.22uH/M	0.22±20%	11.0	13.0	10.0	11.6	5.8	6.5
ACKST322512-0.33uH/M	0.33±20%	13.0	16.0	8.6	9.5	5.3	5.8
ACKST322512-0.47uH/M	0.47±20%	18.0	22.0	7.0	8.2	4.6	5.1
ACKST322512-0.56uH/M	0.56±20%	21.0	25.0	6.5	7.0	4.2	4.6
ACKST322512L-0.56uH/M	0.56±20%	17.0	20.0	6.5	7.0	6.5	7.0
ACKST322512-0.68uH/M	0.68±20%	25.0	30.0	5.6	6.5	3.9	4.4
ACKST322512-1uH/M	1±20%	30.0	36.0	4.5	5.2	3.6	3.9
ACKST322512-1.5uH/M	1.5±20%	45.0	54.0	4.5	5.0	3.1	3.4
ACKST322512-2.2uH/M	2.2±20%	62.0	75.0	3.3	3.8	2.5	2.8
ACKST322512-3.3uH/M	3.3±20%	105.0	127.0	3.0	3.5	2.0	2.2
ACKST322512-4.7uH/M	4.7±20%	150.0	180.0	2.2	2.5	1.6	1.8
ACKST322512-6.8uH/M	6.8±20%	250.0	300.0	2.0	2.3	1.3	1.5
ACKST322512-10uH/M	10±20%	340.0	400.0	1.3	1.6	1.0	1.1

ACKST353220 Series

SPECIFICATION TABLE:

Part No.	Inductance (uH)	DCR (mΩ) @25°C		Saturation Current DC Amps. Isat(A)		Heat Rating Current DC Amps. Irms(A)	
		Typ.	Max.	Max.	Typ.	Max.	Typ.
ACKST353220-0.15uH/M	0.15±20%	8.0	9.6	10.0	11.0	21.0	23.0
ACKST353220-0.22uH/M	0.22±20%	7.0	8.0	11.0	12.0	13.0	16.0
ACKST353220-0.47uH/M	0.47±20%	13.0	15.0	8.0	8.5	9.0	11.0
ACKST353220-0.68uH/M	0.68±20%	18.0	21.0	7.0	7.5	8.0	9.0
ACKST353220-1uH/M	1±20%	20.0	24.0	6.6	7.0	7.0	7.5
ACKST353220-1.5uH/M	1.5±20%	28.0	33.0	5.2	5.5	6.6	7.1
ACKST353220-2.2uH/M	2.2±20%	33.0	40.0	4.5	5.0	5.1	5.6
ACKST353220-3.3uH/M	3.3±20%	58.0	64.0	3.5	4.0	5.0	5.5
ACKST353220-4.7uH/M	4.7±20%	70.0	80.0	3.2	3.5	3.7	4.2
ACKST353220-6.8uH/M	6.8±20%	151.0	174.0	2.6	2.9	2.8	3.3
ACKST353220-10uH/M	10±20%	175.0	200.0	2.3	2.6	2.5	3.0

- ⊙ All test data is reference to 25°C ambient.
- ⊙ Test Condition: 1MHz, 1Vrms.
- ⊙ Isat Max : DC current (A) that will cause L0 to drop less 30%.
Isat Typ : DC current (A) that will cause L0 to drop approximately 30%.
- ⊙ Irms Max: DC current (A) that will cause an $\leq \Delta T$ of 40°C.
Irms Typ: DC current (A) that will cause an approximate ΔT of 40°C.
- ⊙ Operat between temperature range -55°C to +150°C(Including self - temperature rise).
- ⊙ Absolute maximum voltage: DC 20V.