



# SDT3316 SERIES ~ Shielded SMD Power Inductors



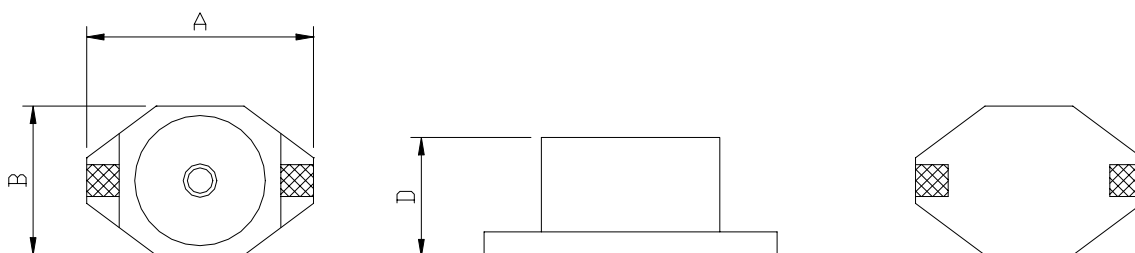
RoHS Compliant

## PART NUMBERING SYSTEM

<b>SDT</b>	<b>3 3 1 6</b>	—	<b>1 0 1 M</b>	—	<b>LF</b>
TYPE	DIMENSIONS		INDUCTANCE		LEAD FREE

## SHAPES AND DIMENSIONS

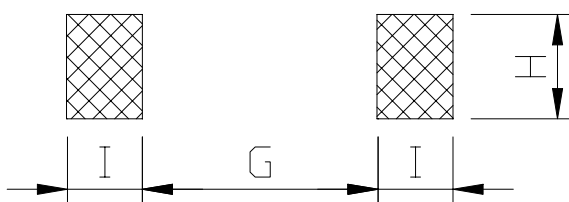
UNIT : mm



**A=12.95 max. B=9.40 max. D=5.08 max.**

## RECOMMENDED PATTERNS

UNIT : mm



**G= 7.37 H= 2.79 I = 2.92**

## FEATURES

- Small high current inductor - **only 0.51" x 0.37" x 0.508" high**
- **True surface mount design**, magnetically shielded, fully pick and place compatible
- Specially designed to have a **"swinging" inductance vs current** characteristic
- Specially designed to provide **low loss** benefit of ferrite and **soft saturation**
- **RoHS-compliant**. 260°C compatible

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**SPECIFICATION TABLE**

PART NUMBER	INDUCTANCE ( $\mu$ H)	INDUCTANCE Rating ( $\mu$ H)	DCR ( $\Omega$ ) (Max.)	Isat ( A )	SRF(MHz ) ( Min. )	Switching Freq. Max. ( f )
SDT3316-1R0M-LF	1.0 $\pm$ 20%	0.5	0.025	4.5	60	1MHHz
SDT3316-1R5M-LF	1.5 $\pm$ 20%	0.7	0.030	4.0	55	1MHHz
SDT3316-2R2M-LF	2.2 $\pm$ 20%	1.0	0.035	1.9	55	1MHHz
SDT3316-3R3M-LF	3.3 $\pm$ 20%	1.5	0.040	1.6	50	1MHHz
SDT3316-4R7M-LF	4.7 $\pm$ 20%	2.0	0.045	1.5	45	1MHHz
SDT3316-6R8M-LF	6.8 $\pm$ 20%	4.0	0.050	1.3	40	1MHHz
SDT3316-100M-LF	10 $\pm$ 20%	5.0	0.055	0.80	35	1MHHz
SDT3316-150M-LF	15 $\pm$ 20%	6.0	0.060	0.65	25	1MHHz
SDT3316-220M-LF	22 $\pm$ 20%	10	0.084	0.60	22	1MHHz
SDT3316-330M-LF	33 $\pm$ 20%	12	0.090	0.55	18	1MHHz
SDT3316-470M-LF	47 $\pm$ 20%	27	0.110	0.32	16	1MHHz
SDT3316-680M-LF	68 $\pm$ 20%	40	0.150	0.28	12	1MHHz
SDT3316-101M-LF	100 $\pm$ 20%	50	0.290	0.28	9	1MHHz
SDT3316-151M-LF	150 $\pm$ 20%	80	0.360	0.21	8	100KHz
SDT3316-221M-LF	220 $\pm$ 20%	90	0.390	0.17	6	100KHz
SDT3316-331M-LF	330 $\pm$ 20%	150	0.730	0.13	5	100KHz
SDT3316-471M-LF	470 $\pm$ 20%	200	0.880	0.11	4	100KHz
SDT3316-681M-LF	680 $\pm$ 20%	300	1.150	0.09	3	100KHz
SDT3316-102M-LF	1000 $\pm$ 20%	420	1.450	0.085	2.5	100KHz

- Inductance tested at 100 kHz, 0.1 Vrms.
- Isat: DC current at which the inductance drops 20% typ. from its value without current.
- SDT Series inductors are designed for current spikes as high as twice the current rating.
- Operating temperature range -40°C to +85°C.
- Electrical specifications at 25°C.
- Packing : 13" reel, machine-ready ,embossed plastic tape ( 1,000 parts per full reel).