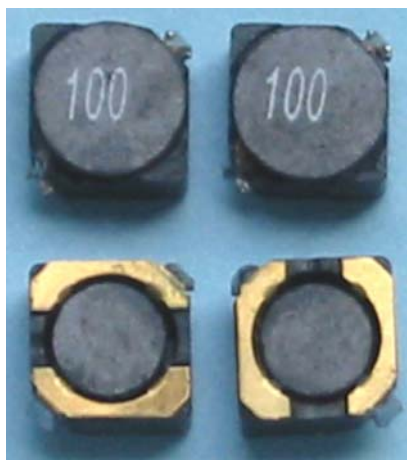


T-WELL

SMD
EMC
EMI
COMPONENT

TCRD TYPE

SMD POWER INDUCTOR

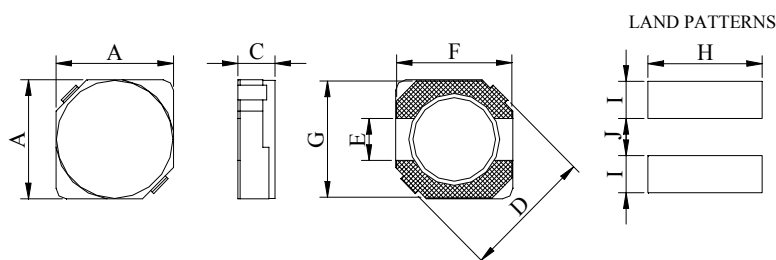


FEATURE:

- Ultra low profile.
- Magnetically shielded and low radiation.
- Ferrite bobbin core and compact size.
- Low core loss for high frequency power application.
- Large terminal surface for good PCB bonding.

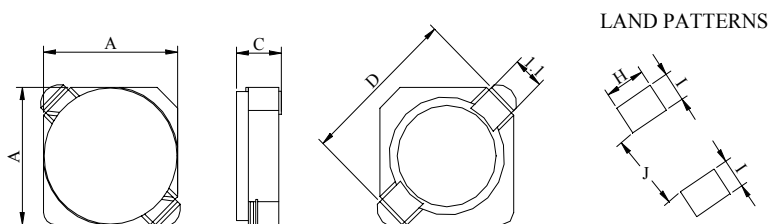
SHAPES&DIMENSION:

Unit:mm



SHAPES&DIMENSION FOR TCRD316L:

Unit:mm

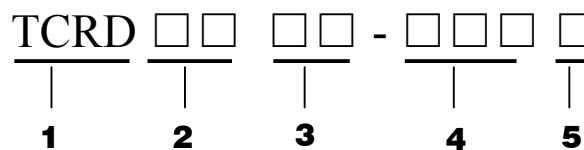


APPLICATION

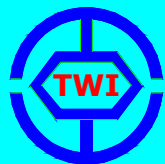
- DC/DC converter
- LCD monitor
- Notebook PC
- Power supply for VTR
- Digital camera
- Portable terminal equipment
- OA equipment

Part No.	A	C	D	E	F	G	H	I	J
TCRD 316	4.0MAX	1.9MAX	4.8MAX	1.1	3.8	3.8	4.3	1.6	1.2
TCRD 316L	4.0MAX	1.8MAX	4.4MAX	-	-	-	1.5	1.4	2.4
TCRD 418	5.0MAX	2.0MAX	6.9MAX	1.5	4.5	4.5	5.3	1.9	1.5
TCRD 428	5.0MAX	3.0MAX	6.9MAX	1.5	4.5	4.5	5.3	1.9	1.5
TCRD 518	6.0MAX	2.0MAX	8.2MAX	2.0	5.5	5.5	6.3	2.15	2.0
TCRD 528	6.0MAX	3.0MAX	8.2MAX	2.0	5.5	5.5	6.3	2.15	2.0
TCRD 628	7.0MAX	3.0MAX	9.5MAX	2.0	6.5	6.5	7.3	2.65	2.0
TCRD 638	7.0MAX	4.0MAX	9.5MAX	2.0	6.5	6.5	7.3	2.65	2.0

PART NUMBERING SYSTEM:



- 1) PRODUCT SYMBOL
- 2) OUTSIDE DIA :m/m
- 3) BODY HEIGHT :m/m
- 4) INDUCTANCE :μH
- 5) TOLERANCE :K 10%, L 15%, M 20%, N 30%



TCRD TYPE

SMD POWER INDUCTOR

STANDARD SPECIFICATION

Part Inductance		DCR(Ω)Max.							Rated D.C. Current(A)Max.						
No.	L(μ H)	TCRD 316/L	TCRD 418	TCRD 428	TCRD 518	TCRD 528	TCRD 628	TCRD 638	TCRD 316/L	TCRD 418	TCRD 428	TCRD 518	TCRD 528	TCRD 628	TCRD 638
1R0	1.0		0.045							1.72					
1R2	1.2			0.0236							2.56				
1R5	1.5	0.043							1.55						
1R8	1.8			0.0275							2.20				
2R2	2.2	0.050	0.075	0.0313					1.20	1.32	2.04				
2R6	2.6					0.018							2.60		
2R7	2.7		0.105	0.0433						1.28	1.60				
3R0	3					0.024	0.024						2.40	3.00	
3R3	3.3	0.063	0.110	0.0492				0.020	1.10	1.04	1.57				3.5
3R9	3.9		0.155	0.0648			0.027			0.88	1.44			2.60	
4R1	4.1				0.057							1.95			
4R2	4.2					0.031							2.20		
4R7	4.7	0.080	0.162	0.0720					0.90	0.84	1.32				
5R0	5.0						0.031	0.024						2.40	2.9
5R3	5.3					0.038							1.90		
5R4	5.4				0.076							1.60			
5R6	5.6		0.170	0.1009						0.80	1.17				
6R0	6.0						0.035							2.25	
6R2	6.2				0.096	0.045		0.027				1.40	1.80		2.5
6R8	6.8	0.095	0.200	0.1089					0.73	0.76	1.12				
7R3	7.3						0.054							2.10	
7R4	7.4							0.031							2.3
8R2	8.2		0.245	0.1175		0.053				0.68	1.04		1.60		
8R6	8.6						0.058							1.85	
8R7	8.7							0.034							2.2
8R9	8.9				0.116							1.25			
100	10	0.16	0.200	0.1283	0.124	0.065	0.065	0.038	0.55	0.61	1.00	1.20	1.30	1.70	2.0
120	12		0.210	0.1316	0.153	0.076	0.070	0.053		0.56	0.84	1.10	1.20	1.55	1.7
150	15	0.20	0.240	0.1490	0.196	0.103	0.084	0.057	0.42	0.50	0.76	0.97	1.10	1.40	1.6
180	18		0.338	0.1660	0.210	0.110	0.095	0.092		0.48	0.72	0.85	1.00	1.32	1.5
220	22	0.33	0.397	0.2350	0.290	0.122	0.128	0.096	0.35	0.41	0.70	0.80	0.90	1.20	1.3
270	27		0.441	0.2610	0.330	0.175	0.142	0.109		0.35	0.58	0.75	0.85	1.05	1.2
330	33	0.47	0.694	0.3780	0.386	0.189	0.165	0.124	0.32	0.32	0.56	0.65	0.75	0.97	1.1
390	39		0.709	0.3837	0.520	0.212	0.210	0.138		0.30	0.50	0.57	0.70	0.86	1.0
470	47	0.60	0.922	0.5870	0.595	0.260	0.238	0.155	0.24	0.28	0.48	0.54	0.62	0.80	0.95
560	56		1.08	0.6245	0.665	0.305	0.277	0.202		0.26	0.41	0.50	0.58	0.73	0.85
680	68	1.10	1.30	0.6990	0.840	0.355	0.304	0.234	0.22	0.24	0.35	0.43	0.52	0.65	0.75
820	82		1.56	0.9148	0.978	0.463	0.390	0.324		0.22	0.32	0.41	0.46	0.60	0.70
101	100	1.40	1.73	1.02	1.200	0.520	0.535	0.358	0.17	0.20	0.29	0.36	0.42	0.54	0.65
121	120		2.39	1.27						0.18	0.27				
151	150		2.67	1.35						0.15	0.24				
181	180		4.00	1.54						0.14	0.22				

1. Test Freq.(L)

TCRD316/L, TCRD428 (100KHz 0.25V) ;

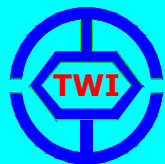
TCRD418 1.0 μ H~8.2 μ H (7.96MHz 0.25V) ; 10~180 μ H (100KHz 0.25V) ;

TCRD518, TCRD528, TCRD628, TCRD638 (10KHz 0.25V) ;

2. Tolerance of Inductance: 1.0~180 μ H $\pm$ 30%(N)

3. Operating temperature -40 $^{\circ}$ C to +85 $^{\circ}$ C.

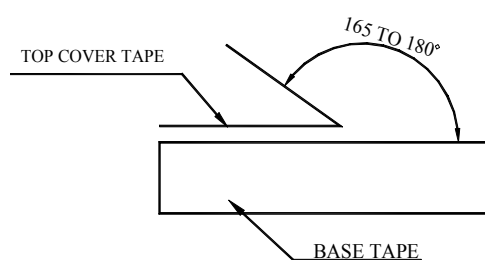
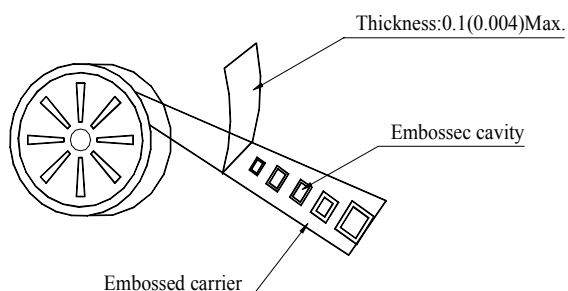
4. The rated current indicates the current when the inductance decreases to 65% over it's nominal value or D.C. current when the temperature rising $\Delta t=30^{\circ}$ C lower , whichever is lower.



TCRD TYPE

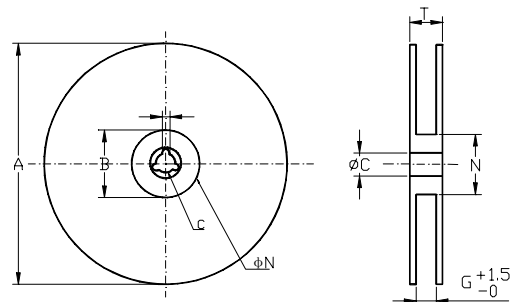
SMD POWER INDUCTOR

PACKAGING FOR SMC



The force for tearing off cover tape is 10 to 60 grams in the arrow direction.

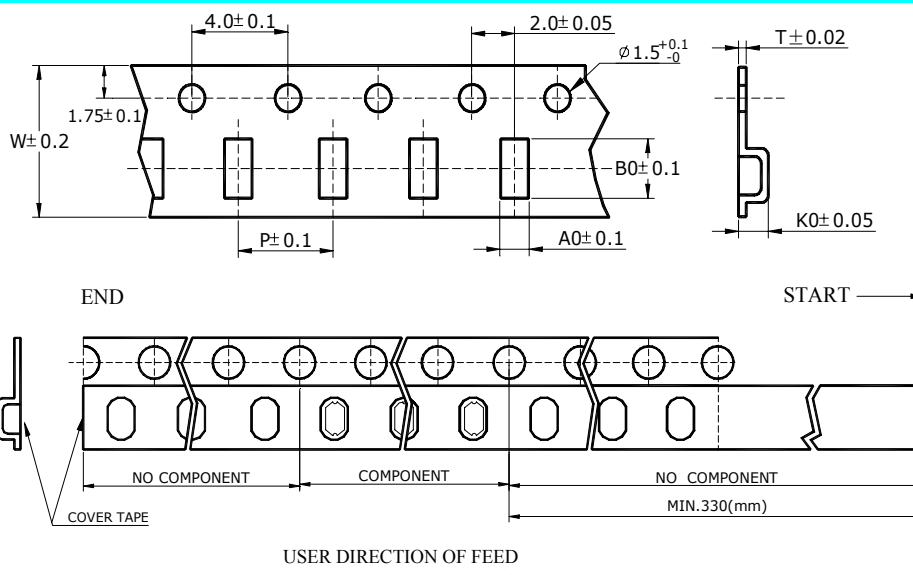
CARRIER TAPE REELS



MATERIAL: PAPER/PLASTIC Dimension in mm

TYPE	A	B	C	G	N	T
8mm	178	21.0±0.8	13.0±0.2	8.4	55	12.4
12mm	178	21.0±0.8	13.0±0.2	12.4	55	16.4
16mm	178	21.0±0.8	13.0±0.2	16.4	55	20.4
24mm	178	21.0±0.8	13.0±0.2	24.4	100	28.4
12mm	330	21.0±0.8	13.0±0.2	12.4	100	16.4
16mm	330	21.0±0.8	13.0±0.2	16.4	100	20.4
24mm	330	21.0±0.8	13.0±0.2	24.4	100	28.4
24mm	330	21.0±0.8	13.0±0.2	24.4	75	28.4
32mm	330	21.0±0.8	13.0±0.2	32.4	75	36.4

TAPE DIMENSION/PACKAGING



TYPE	A0	B0	K0	W	P	T	CHIPS/REEL
TCRD 316	4.3	4.20	2.00	12.0	8.0	0.30	3500
TCRD 316L	4.3	4.20	2.00	12.0	8.0	0.30	3500
TCRD 418	5.3	5.30	2.20	16.0	12.0	0.35	2000
TCRD 428	5.3	5.30	3.30	16.0	12.0	0.35	1500
TCRD 518	6.3	6.30	2.30	16.0	12.0	0.35	2000
TCRD 528	6.3	6.30	3.60	16.0	12.0	0.35	1500
TCRD 628	7.6	7.60	3.70	16.0	12.0	0.40	1000
TCRD 638	7.6	7.60	5.40	16.0	12.0	0.40	1000

Dimension in mm