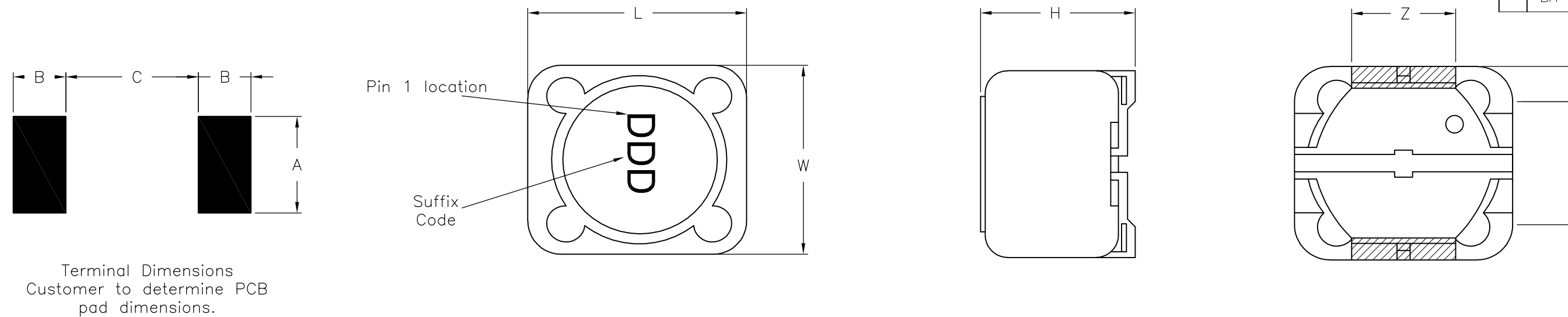




Series Number	Maximum Dimensions				Reference Dimensions					
	Units	L	W	H	X	Y	Z	A	B	C
MGDQ6	inches	0.492"	0.492"	0.315"	0.315"	0.087"	0.197"	0.202"	0.084"	0.307"
	[mm]	[12.50]	[12.50]	[8.00]	[8.00]	[2.20]	[5.00]	[5.13]	[2.13]	[7.80]

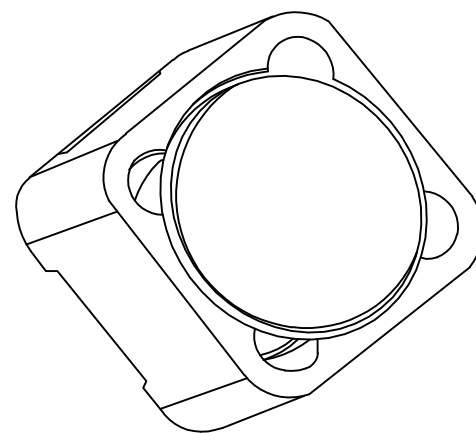
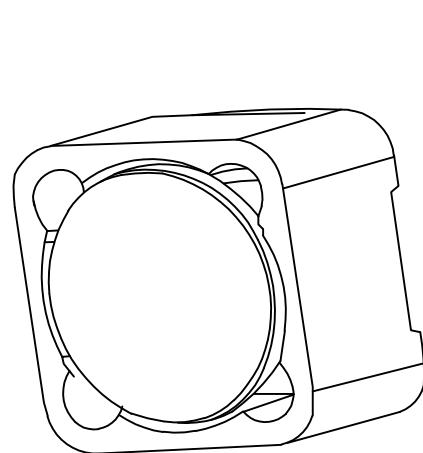
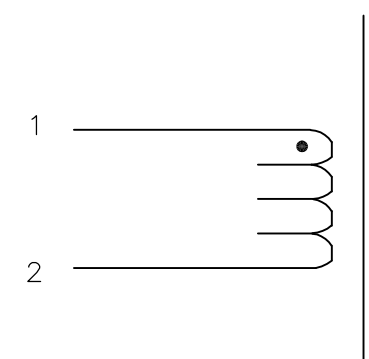
MGDQ5				
Lead Free Part Number	L μH	DCR	IsAT	Tolerance
		Ω	A	Suffix
MGDQ6-00001-P	0.47	0.0020	35.000	M
MGDQ6-00002-P	0.75	0.0025	33.00	M
MGDQ6-00003-P	1.5	0.003	25.00	M
MGDQ6-00004-P	2.4	0.012	8.00	M
MGDQ6-00005-P	3.5	0.014	7.50	M
MGDQ6-00006-P	4.7	0.016	13.50	M
MGDQ6-00007-P	6.1	0.018	6.60	M
MGDQ6-00008-P	7.6	0.020	5.90	M
MGDQ6-00009-P	10	0.022	5.40	M
MGDQ6-00010-P	12	0.025	4.90	M
MGDQ6-00011-P	15	0.027	4.50	M
MGDQ6-00012-P	18	0.040	3.90	M
MGDQ6-00013-P	22	0.044	3.60	M
MGDQ6-00014-P	27	0.046	3.40	M
MGDQ6-00015-P	33	0.065	3.00	M
MGDQ6-00016-P	39	0.073	2.75	M
MGDQ6-00017-P	47	0.100	2.50	M
MGDQ6-00018-P	56	0.110	2.35	M
MGDQ6-00019-P	68	0.140	2.10	M
MGDQ6-00020-P	82	0.160	1.95	M
MGDQ6-00021-P	100	0.220	1.70	M
MGDQ6-00022-P	120	0.250	1.60	M
MGDQ6-00023-P	150	0.280	1.42	M
MGDQ6-00024-P	180	0.350	1.30	M
MGDQ6-00025-P	220	0.390	1.16	M
MGDQ6-00026-P	270	0.560	1.06	M
MGDQ6-00027-P	330	0.640	0.95	M
MGDQ6-00028-P	390	0.700	0.88	M
MGDQ6-00029-P	470	0.980	0.79	M
MGDQ6-00030-P	560	1.070	0.93	M
MGDQ6-00031-P	680	1.460	0.67	M
MGDQ6-00032-P	820	1.640	0.60	M
MGDQ6-00033-P	1000	1.820	0.55	M

Features:

1. High energy storage and low resistance
2. Reliable surface mounting, flat top for pick and place.
3. Smaller real estate than other common inductors
4. Robust temperature deflection to prevent damage during solder reflow.
5. Tape and Reel mechanical specifications available upon request.
6. Operating Temperature -40°C to $+85^{\circ}\text{C}$.
7. Highly resistive core for EMI suppression applications.

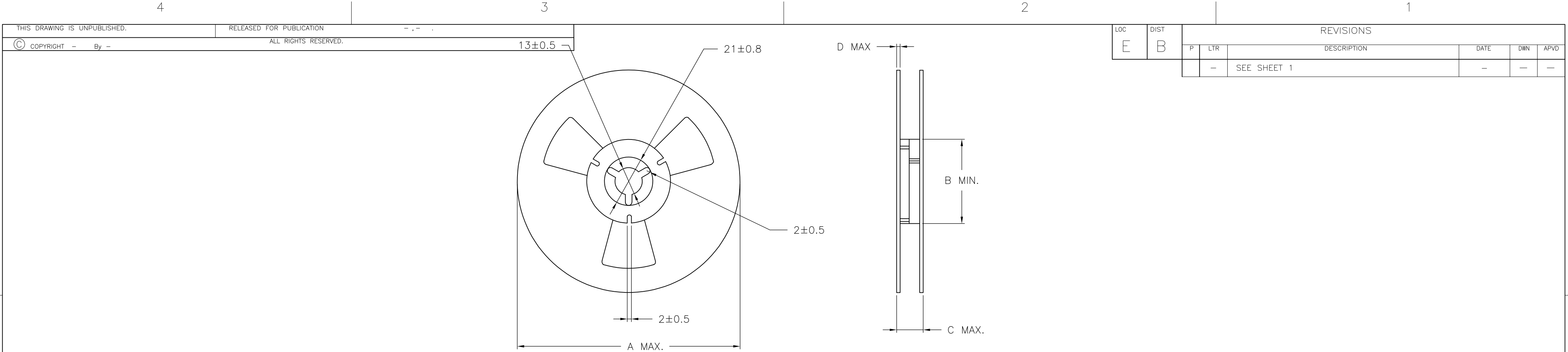
Notes:

1. Electrical Specifications at +20°C unless noted otherwise
2. Inductance measured at 100kHz and 250mVrms.
3. Isat is a maximum applied AC + DC current.
4. Isat current is applied to produce a typical 35% drop in nominal inductance.
5. Tolerance suffix of M = $\pm 20\%$.
6. DCR is a maximum at 20°C
7. Terminal Plating is Gold Flash over Ni
8. 260°C Maximum reflow solder temperature per J-STD-020



RoHS Compliant

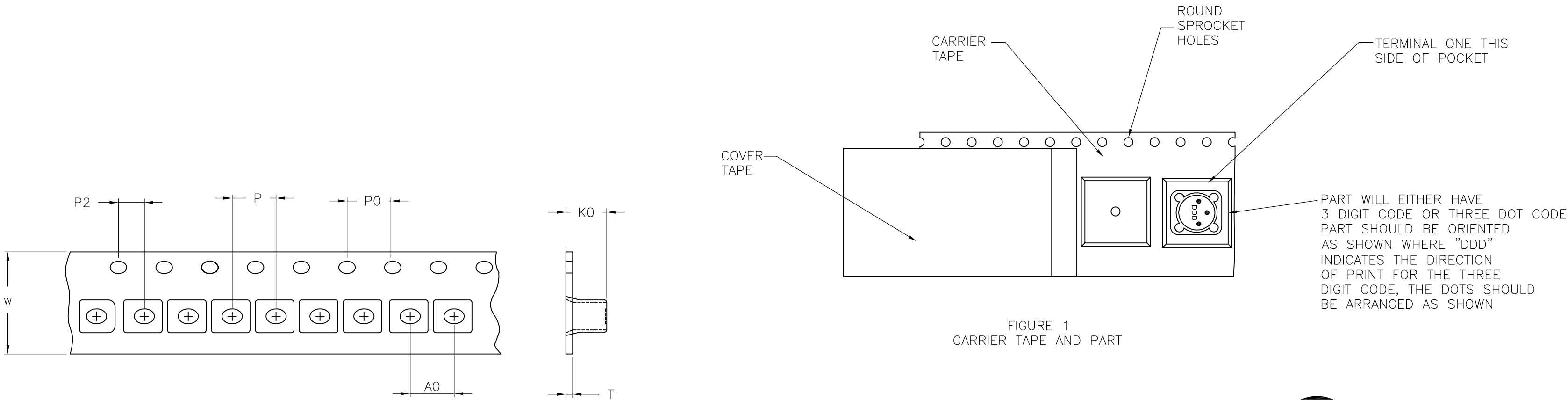
THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN RAGHAVENDRA K 18NOV2014		 TE Connectivity	
DIMENSIONS: INCHES[MM]		CHK ALLAN P 18NOV2014			
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD TONY N 18NOV2014		NAME MGDQ6-00021-P - S-L100, lmax1.7	
		PRODUCT SPEC —			
0 PLC ± 0.5 1 PLC ± 0.2 2 PLC ± 0.1 3 PLC ± — 4 PLC ± — ANGLES ± —		APPLICATION SPEC —			
MATERIAL —		WEIGHT —			
FINISH —		CUSTOMER DRAWING		CAGE CODE 00779	
				DRAWING NO C-6-1879387-9	
				RESTRICTED TO —	
				SCALE NTS	
				SHEET 1 of 3	
				REV RA	



Dimensions are in millimeters unless specified.

Series Number	Maximum Dimensions					Reel Qty	Carton (Box) Qty.	Packaging Specification
	Units	A	B	C	D			
MGDQ6	inches	12.99"	3.94"	1.16"	0.098"	300	900	90-0054
	[mm]	[330]	[100.0]	[29.5]	[2.50]			

PACKAGING NOTE: Only pressure sensitive cover tape is to be used.



Series	W ±0.3	P ±0.1	P0 ±0.1	P2 ±0.1	K0 ±0.05	T ±0.05	A0 ±0.1	THIS DRAWING IS A CONTROLLED DOCUMENT.			DWN RAGHAVENDRA K 18NOV2014	TE Connectivity									
MGDQ6	24.0	16.0	4.00	2.00	8.25	0.35	12.6	DIMENSIONS: INCHES[MM]		TOLERANCES UNLESS OTHERWISE SPECIFIED:		CHK ALLAN P 18NOV2014	NAME								
										APVD TONY N 18NOV2014		MGDQ6-00021-P - S-L100, lmax1.7									
										PRODUCT SPEC		-									
										APPLICATION SPEC		-									
								MATERIAL		FINISH		WEIGHT		SIZE		CAGE CODE	DRAWING NO	RESTRICTED TO			
								-		-		-		A2		00779	C-6-1879387-9	-			
CUSTOMER DRAWING												SCALE		NTS		SHEET		2 of 3		REV	BA

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P	LTR	DESCRIPTION	DATE	DWN	APVD
	—	SEE SHEET 1	—	—	—

Item	Specification	Test Method/Condition
Environmental		
Static Humidity	After exposure part remains within specified electrical parameters for L, Q and DCR.	Precondition at 25°C for 60 minutes. Expose parts to an environment of +40°C with 90 to 95% R.H. for 240 hours.
Storage Life	After exposure part remains within specified electrical parameters for L, Q and DCR.	Subject parts to an environment of 85°C 85% R.H. for 168 hours. After exposure allow parts to dry for 4 hours before measurements are taken.
Temperature Cycle	After exposure part remains within specified electrical parameters for L, Q and DCR.	10 cycles (Air to Air) 1 cycle shall consist of: 30 minutes exposure to +85°C 30 minutes exposure to −40°C Allow 20 minutes transition between extremes.
Temperature Shock	After exposure part remains within specified electrical parameters for L, Q and DCR.	10 cycles (Air to Air) 1 cycle shall consist of: 30 minutes exposure to −55°C 30 minutes exposure to +125°C 15 seconds maximum transition between temperatures
IR Reflow	10 seconds at 260°C max.	Post test parts shall pass all electrical specifications after reflow. There shall be no visible signs of solder flow or leakage from the part.
General		
Storage Temperature Range	−40°C to +85°C	
Operating Temperature Range	−40°C to +85°C	
Flammability	IEC 695−2−2	Withstands needle−flame test
Other		
Vibration	After exposure part remains within specified electrical parameters for L, Q and DCR.	1 cycle of 30 minutes of the following: 5 − 7 Hz constant displacement of 0.75 inches, 5 minutes 7 − 30 Hz constant acceleration of 1.5 Gs, 10 minutes 31 − 50 Hz constant displacement of 0.33 inches, 5 minutes 50 − 500 Hz constant acceleration of 1.2 Gs, 10 minutes
Mechanical Shock	After exposure part remains within specified electrical parameters for L, Q and DCR.	MGDQ6 Series − 500 Gs per axis, 2 directions
Solderability	Wetting shall cover 90% minimum of each termination	Dip pads in RMA flux, 63/37 solder (Sn/Pb) at 232°C for solder at 245 ± 5°C 5 seconds ±2 seconds.
Component Adhesion (Push Test)	Component shall withstand 6 lb. push force minimum without delaminating from mounting surface.	Apply and measure force with a digital force gauge set
Resistance to Solvent		Withstands 6 minutes of alcohol.
Chemical		Withstands 3 minutes forced spray Freon TMS
Ionic Contamination	Conductivity: pH: Chlorides: Sodium: Potassium:	11 μOhms/cm maximum 5.5 to 9 65 ppm maximum 20 ppm maximum 10 ppm maximum

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