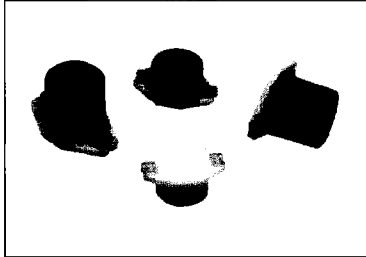


MODELS LPC-2516 and LPC-3019 Inductors Surface Mount



FEATURES

- Totally integrated manufacturing
- Pick and place compatible
- Statistical process controlled
- Tape packaging per EIA-481
- Low cost
- Qualification data available
- UL Class H materials (180°C)
- Wide inductance range

- Excellent coplanarity
- Low DCR vs inductance
- Solderless wire bond

APPLICATIONS

Circuit: Signal conditioning, filtering and DC/DC converters.

Equipment: Notebook computers, pagers and all types of battery powered equipment.

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	CORE TYPE	MIN IND. (μH)	Q MIN.	DCR MAX. (Ohms)	RATED DC* CURRENT (mA)	MODEL	CORE TYPE	MIN IND. (μH)	Q MIN.	DCR MAX. (Ohms)	RATED DC* CURRENT (mA)
LPC-2516	A	47	40	0.40	10	LPC-3019	A	150	40	0.30	10
		68	40	0.50	10			220	40	0.40	10
		100	50	0.80	10			330	40	0.60	10
		150	50	0.90	10			470	40	0.70	10
	220	50	1.10	10	680		40	0.80	10		
	330	50	2.00	10	1000		40	1.00	10		
	470	50	2.30	10	1500		50	1.60	10		
	680	50	3.00	10	2200		50	3.50	7		
	1000	50	6.50	10	3300		50	4.00	7		
	1500	60	8.00	7	4700		50	4.50	7		
2200	60	10.0	7	6800	50	5.00	7				
3300	60	12.0	7								
4700	60	15.0	7								

* Rated DC current is based on a 25% reduction in the minimum inductance value.

ELECTRICAL SPECIFICATIONS

Maximum Operating Voltage: 2.5 V RMS to 10 V RMS, depending on inductance value.

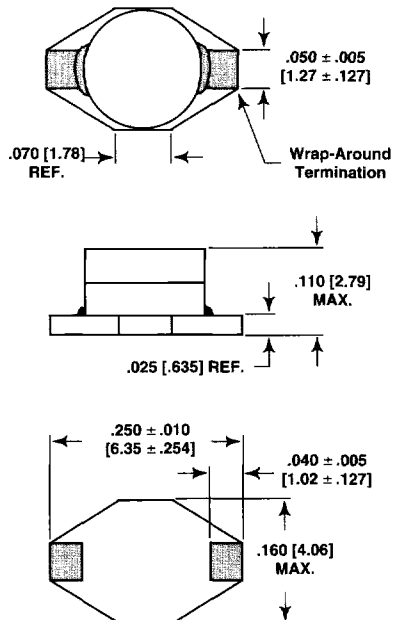
Operating Temperature Range: - 25°C to + 60°C.

Inductance - L and Quality Factor - Q: Measured with H/P 4284A impedance analyzer at 50 mV RMS, 100kHz.

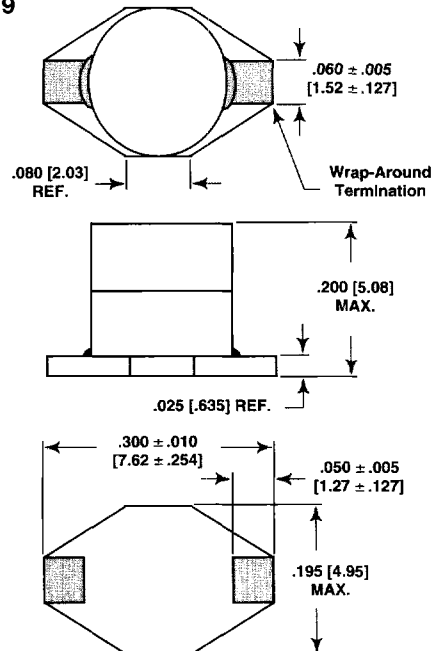
DC Resistance - DCR: Measured with H/P 34401A multimeter, or equivalent ohmmeter at + 25°C ± 5°C.

DIMENSIONAL CONFIGURATIONS [Numbers in brackets indicate millimeters]

LPC-2516



LPC-3019



MODELS LPC-2516 and LPC-3019

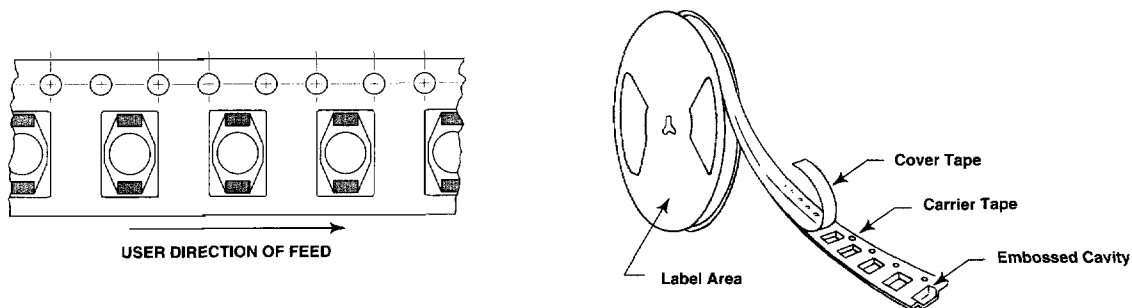
ENVIRONMENTAL PERFORMANCE		
TEST	CONDITION/METHOD	SPECIFICATIONS
Thermal Shock (air to air), Unmounted	Ten cycles of 30 minutes @ - 55°C, 15 seconds maximum @ room ambient, 30 minutes @ + 125°C, 15 seconds maximum @ room ambient.	All mechanical and electrical degradation limits apply.
Moisture Resistance	Precondition at + 40°C for 60 minutes. Subject the component to 240 hours at + 40°C and 90 to 95% relative humidity.	All mechanical and electrical degradation limits apply.
Storage Life	Subject the component to 168 hours at + 85°C and 85% relative humidity.	All mechanical and electrical degradation limits apply.
Resistance to Soldering Heat Mount to PC Board Reflow Cycle	Expose components to an IR solder reflow environment with IR heating at a temperature of + 200°C for 300 ± 10 seconds with an included + 230°C peak temperature for 30 seconds minimum.	All mechanical and electrical degradation limits apply.
Mechanical Shock	One-half sine pulse (8700 G's for 0.3 milliseconds) in each direction along 3 mutually perpendicular axes in each direction (total of 6 shocks).	All mechanical and electrical degradation limits apply.
Vibration	1 cycle of 30 minutes duration per the following: 5-7 Hz constant displacement of 1.0 inch, 5 minutes, 7-30 Hz constant acceleration of 1.5 G's, 10 minutes, 30-50 Hz constant displacement of 0.033 inch, 5 minutes, 50-500 Hz constant acceleration of 4.2 G's, 10 minutes.	All mechanical and electrical degradation limits apply.
Resistance to Solvents, Terpene	Forced spray environment of Terpene at + 25° C and 3 minutes of water rinse at + 70°C and 2 minutes of forced I.R. drying at + 120°C.	All mechanical and electrical degradation limits apply.
Solderability	Per MIL-STD-202, Method 208, except steam aging is omitted and pads are dipped 30° from vertical. Solder temperature: + 245°C ± 5°C. Immersion dwell time: 5 ± 1/2 seconds.	Board contact area of pads will exhibit minimum of 80% wetting coverage. All mechanical and electrical degradation limits apply.

NOTE: All specified characteristics verified by qualification testing at Dale Electronics, Inc., or customer test facilities.

HOW TO ORDER			
<u>LPC</u> MODEL	<u>2516</u> SIZE	<u>1000µH</u> INDUCTANCE VALUE	<u>A</u> CORE

PACKAGING																			
<p>TAPE SPECIFICATIONS: Carrier Tape Type: Non-conductive. Cover Tape Type: Anti-static. Cover Tape Adhesion to Carrier: 60-175 grams.</p>		<p>STANDARDS: All embossed carrier tape packaging will be accomplished in compliance with latest revision of EIA-481 "Taping of Surface Mount Components for Automatic Placement".</p>																	
<p>REEL SPECIFICATIONS: Antistatic. Diameter (flange): 13" [330.2 mm]. Reel width is maximum measured over flange.</p>		<table border="1"> <thead> <tr> <th>MODEL</th> <th>TAPE WIDTH</th> <th>REEL WIDTH</th> <th>COMPONENT PITCH</th> <th>UNITS PER REEL</th> </tr> </thead> <tbody> <tr> <td>LPC-2516</td> <td>12mm</td> <td>18.4mm</td> <td>8mm</td> <td>2500</td> </tr> <tr> <td>LPC-3019</td> <td>16mm</td> <td>22.4mm</td> <td>8mm</td> <td>2500</td> </tr> </tbody> </table>	MODEL	TAPE WIDTH	REEL WIDTH	COMPONENT PITCH	UNITS PER REEL	LPC-2516	12mm	18.4mm	8mm	2500	LPC-3019	16mm	22.4mm	8mm	2500		
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Tape and Reel Orientation



NOTE: Top view shown with cover tape removed.