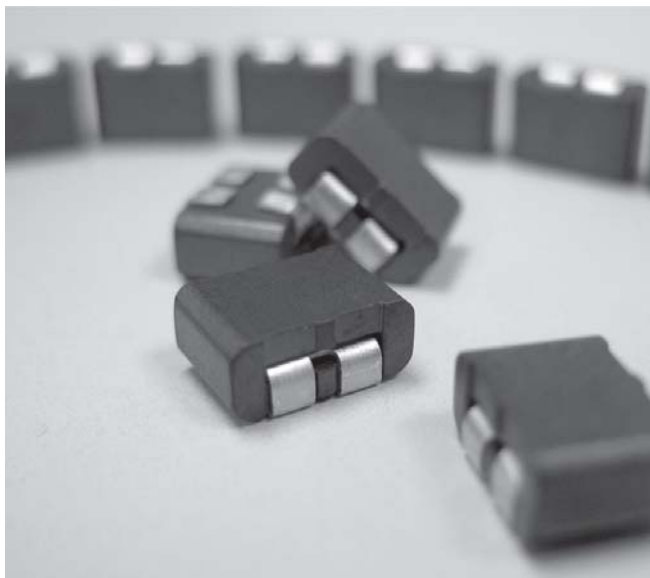




Power Inductor-D1803-AL

For Marvell
DSP Switchers™



This power inductor was developed specifically for Marvell Semiconductors for use with their DSP Switcher™ Power Management chipsets 88PD8300 and 88PD830. It is also used in modules 88MD8200 and 88MD830 as well as in DB-88PD8300 Development Board.

Core material Ferrite

Terminations RoHS matte tin over copper

Weight 0.36 g

Ambient temperature -40°C to +125°C

Storage temperature Component: -40°C to +125°C.
Packaging: -55°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Mean Time Between Failures (MTBF) 26,315,789 hours

Packaging 750/7" reel; 2500/13" reel Tape: 12 mm wide, 0.3 mm thick, 4 mm pocket spacing, 3.3 mm pocket depth

PCB washing Only pure water or alcohol recommended

Part number ¹	Inductance $\pm 30\%$ ² (nH)	Leakage inductance ³ typ (nH)	DCR typ ⁴ (mOhms)	Impedance typ (Ohms)		SRF typ ⁵ (MHz)	Isat (A) ⁶		
				1 MHz	10 MHz		10% drop	20% drop	30% drop
D1803-AL_	1000	21	0.55	1.98	19.2	27.4	0.38	0.44	0.52

1. When ordering, please specify **packaging** code:

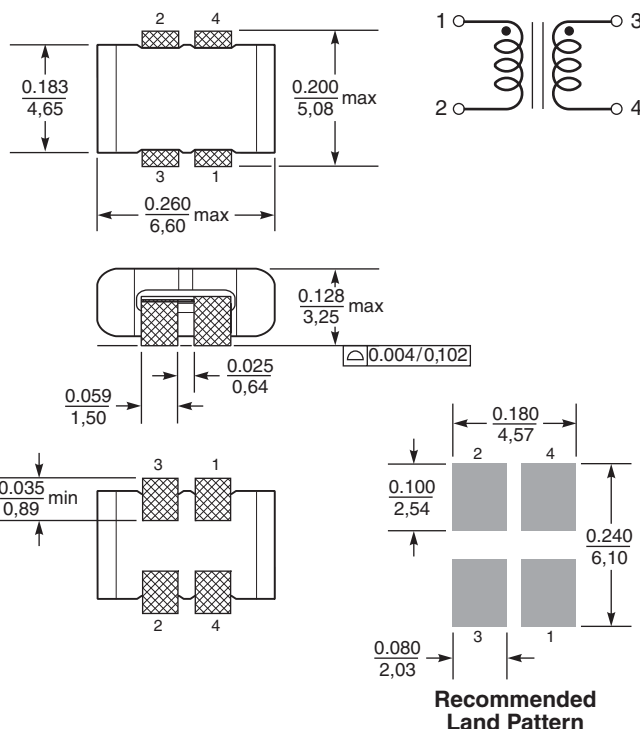
D1803-ALC

Packaging: **C** = 7" machine-ready reel. EIA-481 embossed plastic tape (750 parts per full reel).

B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter C instead.

D = 13" machine-ready reel. EIA-481 embossed plastic tape (2500 parts per full reel).

- Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4284A impedance analyzer.
- Leakage inductance tested on one winding with the other winding grounded.
- DCR measured on Keithley Instruments micro-ohmmeter or equivalent.
- SRF measured using Agilent/HP 8753ES network analyzer.
- DC current at which the inductance drops from its value without current.
- Current that causes the specified temperature rise from 25°C ambient.
- Electrical specifications at 25°C. All specifications are per winding. Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



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Specifications subject to change without notice.
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Document 619-1 Revised 10/03/07

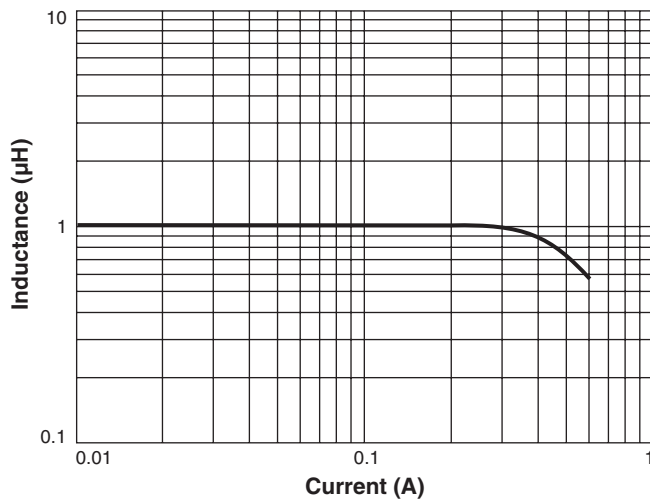
1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

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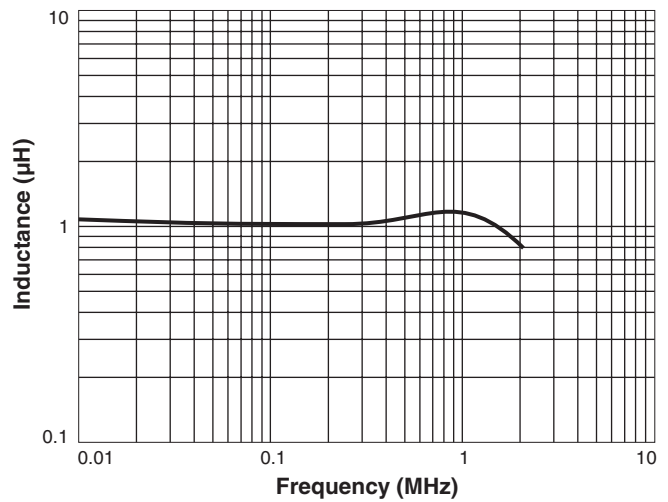


Power Inductor – D1803-AL

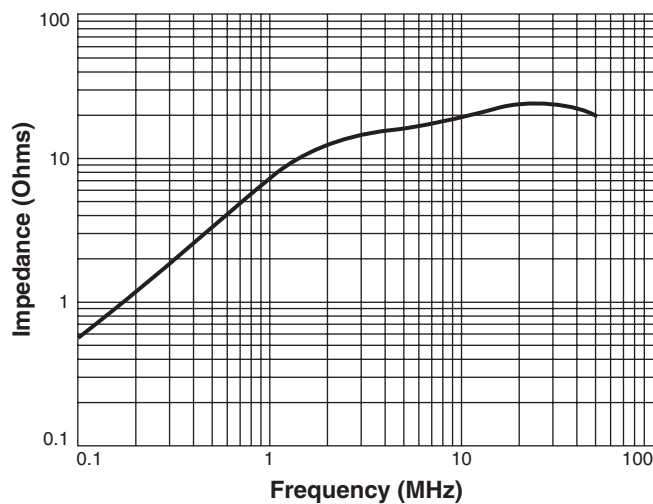
Inductance vs Current



Inductance vs Frequency



Impedance vs Frequency



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