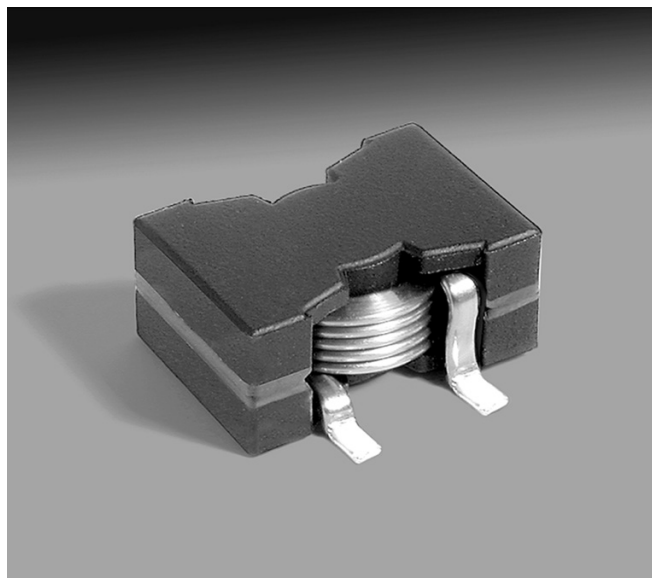


# Flat Wire Power Inductor

For Maxim  
MAX5051 Controller IC



Designed for Maxim's MAX5051 Power Supply Controller, the A9860-B offers exceptional electrical performance.

Flat wire windings offers extremely low DC resistance and high saturation current ratings. The flat core provides excellent heat dissipation.

**Core material** Ferrite

**Terminations** Tin-silver over copper

**Weight** 11.4 g

**Ambient temperature**  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  with ( $40^{\circ}\text{C}$  rise) Irms current.

**Maximum part temperature**  $+125^{\circ}\text{C}$  (ambient + temp rise). [Derating](#).

**Storage temperature** Component:  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$ .

Tape and reel packaging:  $-40^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$

**Resistance to soldering heat** Max three 40 second reflows at  $+260^{\circ}\text{C}$ , parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at  $<30^{\circ}\text{C}$  / 85% relative humidity)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**

38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

**Packaging** 200/13" reel; Plastic tape: 44 mm wide, 0.4 mm thick, 32 mm pocket spacing, 9.6 mm pocket depth

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).

Part number <sup>1</sup>	L @ 0A <sup>2</sup> $\pm 20\%$ ( $\mu\text{H}$ )	L @ 15.0A <sup>2</sup> $\pm 20\%$ ( $\mu\text{H}$ )	DCR max (mOhm)	SRF typ <sup>3</sup> (MHz)	Isat <sup>4</sup> (A)	Irms <sup>5</sup> (A)
A9860-B_	2.70	2.70	3.0	63.0	20.0	15.0

1. Please specify **termination** and **packaging** codes:

**A9860-BD**

**Packaging:** **D** = 13" machine-ready reel EIA-481 embossed plastic tape (200 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 D instead.

2. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc using a Coilcraft SMD-D fixture in an Agilent/HP 4284A impedance analyzer.

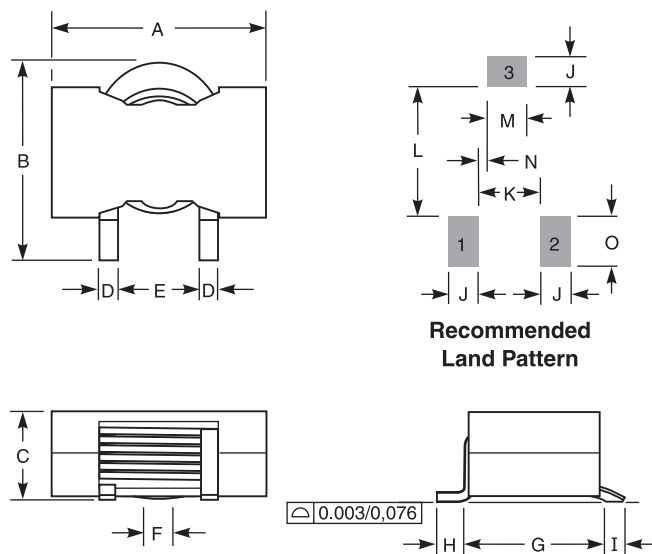
3. SRF measured using an Agilent/HP 8753D network analyzer and a Coilcraft SMD-D test fixture.

4. DC current at which the inductance drops 10% (typ) from its value without current. [Click for temperature derating information](#).

5. Current that causes a  $40^{\circ}\text{C}$  rise from  $25^{\circ}\text{C}$  ambient. This information is for reference only and does not represent absolute maximum ratings. [Click for temperature derating information](#).

6. Electrical specifications at  $25^{\circ}\text{C}$ .

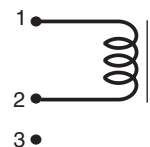
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



A max	B max	C max	D	E	F	G
0.91	0.85	0.39	0.08	0.30	0.10	0.57
23,0	21,5	10,0	2,0	7,5	2,5	14,5

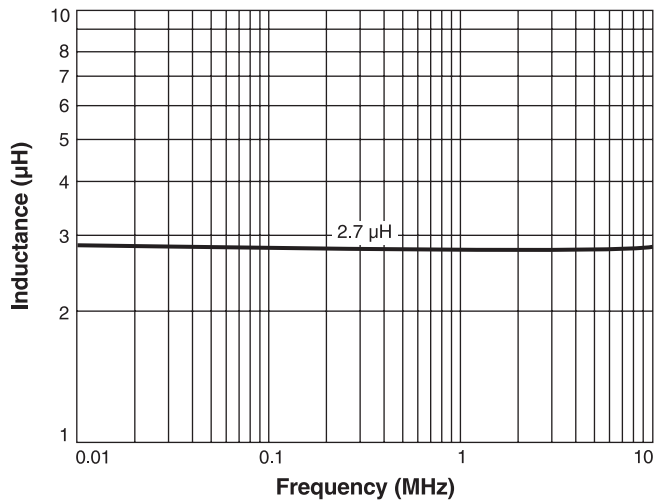
H	I	J	K	L	M	N	O
0.098	0.08	0.129	0.25	0.486	0.168	0.039	0.216
2,5	2,0	3,27	6,23	12,35	4,27	0,98	5,48



Terminal 3 is for mounting stability only.  
Do not connect to ground or other circuits.

# Flat Wire Power Inductor for Maxim MAX5051

## Typical L vs Frequency



## Typical L vs Current

