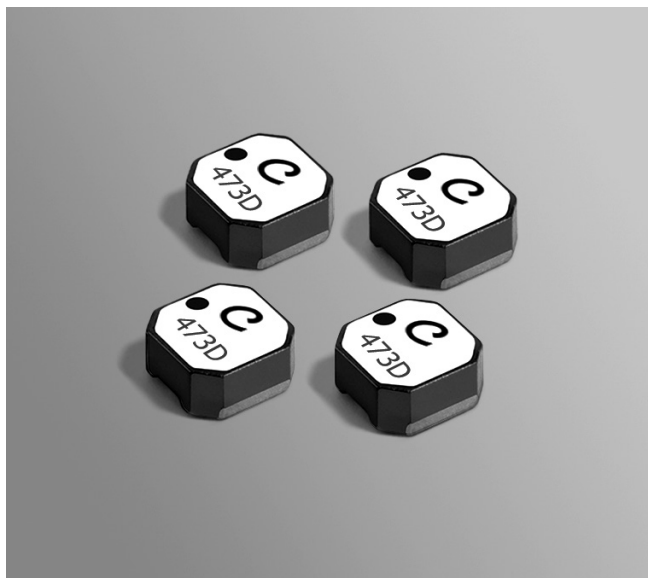


**NEW!**

# Shielded Power Inductor

For Analog Devices AD5758BCPZ  
Digital-to-analog converter (DAC)



- Designed for Analog Devices AD5758BCPZ single-channel, voltage and current output digital-to-analog converter (DAC) with Dynamic Power Control (DPC)
- AEC-200 Grade 3 qualified ( $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  ambient)
- $4.0 \times 4.0$  mm footprint; less than 1.8 mm tall

**Core material** Ferrite

**Environmental** RoHS compliant, halogen free

**Terminations** Matte tin over nickel over silver.

**Weight** 54 – 100 mg

**Ambient temperature**  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  with  $I_{\text{rms}}$  current up to  $+125^{\circ}\text{C}$ , at 50 mA continuous current or 200 mA for short durations

**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

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

Part number <sup>1</sup>	Inductance <sup>2</sup> $\pm 20\%$ ( $\mu\text{H}$ )	DCR max <sup>3</sup> (Ohms)	SRF typ <sup>4</sup> (MHz)	Isat (A) <sup>5</sup>			Irms (A) <sup>6</sup>	
				10% drop	20% drop	30% drop	20°C rise	40°C rise
PA6594-AE_	47.0	0.650	16	0.51	0.55	0.56	0.45	0.68

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

**PA6594-AEC**

**Packaging:** C= 7" machine-ready reel. EIA-481 embossed plastic tape (1000 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. Factory order only, not stocked (3500 parts per full reel).

2. Inductance tested at 100 kHz, 0.1 Vrms using an Agilent/HP 4192A. Inductance at 1 MHz is the same for parts with SRF  $\geq 10$  MHz.

3. DCR measured on a micro-ohmmeter.

4. SRF measured using Agilent/HP 8753ES or equivalent.

5. DC current at  $25^{\circ}\text{C}$  that causes the specified inductance drop from its value without current.

6. Current that causes the specified temperature rise from  $25^{\circ}\text{C}$  ambient. This information is for reference only and does not represent absolute maximum ratings.

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

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



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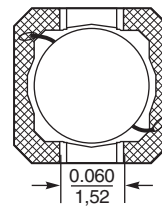
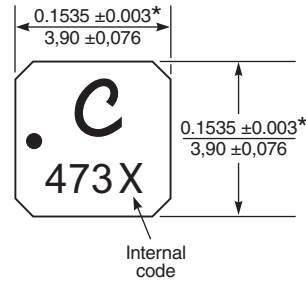
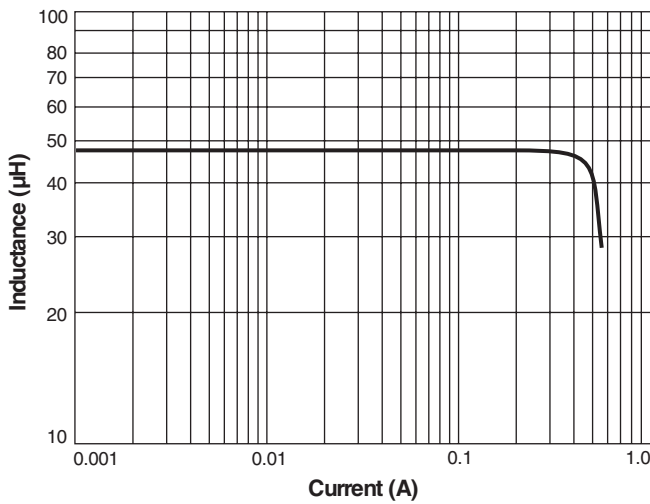
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This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.

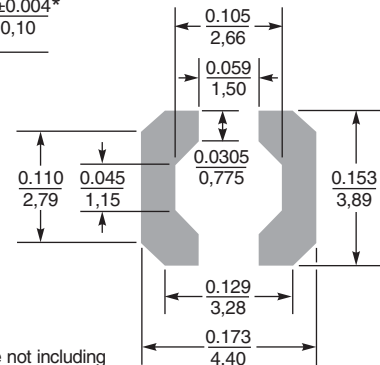
**NEW!**

# Shielded Power Inductor – PA6594-AE

## L vs Current



### Recommended Land Pattern



\* Dimensions are of the case not including the termination. For maximum overall dimensions including the termination, add 0.005 in / 0.13 mm.

Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

**Packaging** 1000/7" reel; 3500/13" reel Plastic tape: 12 mm wide, 0.23 mm thick, 8 mm pocket spacing, 1.9 mm pocket depth  
**Recommended pick and place nozzle** OD: 4 mm; ID:  $\leq 2$  mm

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