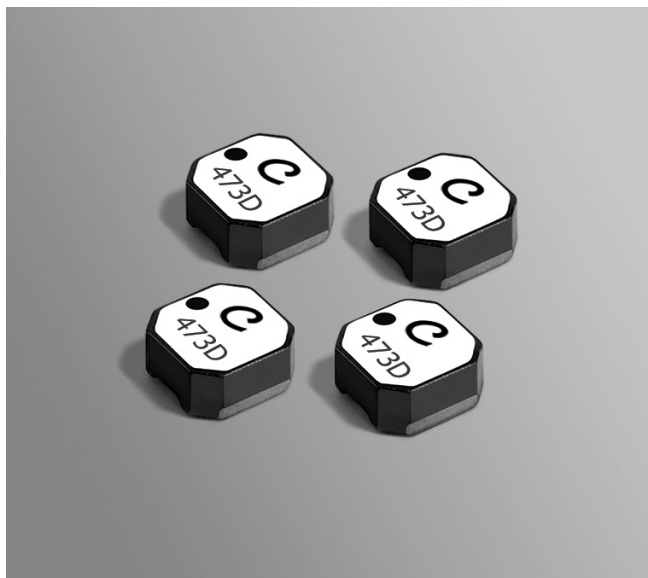


NEW!

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°C to +85°C ambient)
- 4.0 × 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°C to +85°C with Irms current up to +125°C, at 50 mA continuous current or 200 mA for short durations

Maximum part temperature +125°C (ambient + temp rise). [Derating](#).

Storage temperature Component: –40°C to +125°C.

Tape and reel packaging: –40°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)

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 ¹ | Inductance ² ±20% (µH) | DCR max ³ (Ohms) | SRF typ ⁴ (MHz) | Isat (A) ⁵ | | | Irms (A) ⁶ | |
|--------------------------|--------------------------------------|--------------------------------|-------------------------------|-----------------------|----------|----------|-----------------------|-----------|
| | | | | 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 ≥10 MHz.

3. DCR measured on a micro-ohmmeter.

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

5. DC current at 25°C that causes the specified inductance drop from its value without current.

6. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

7. Electrical specifications at 25°C.

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



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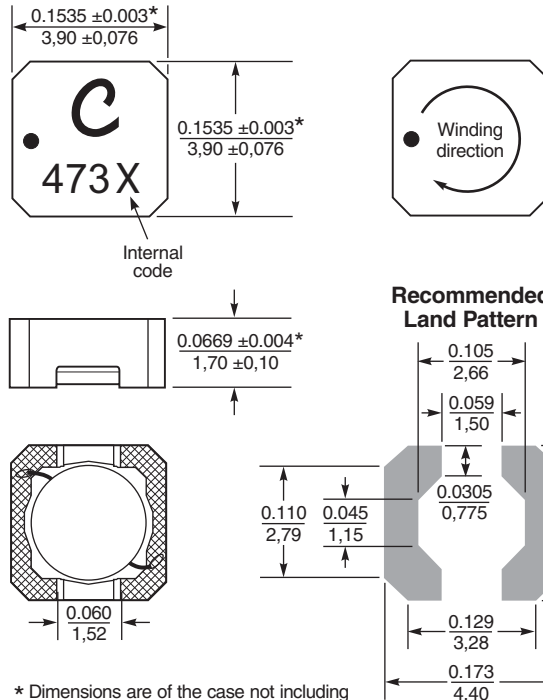
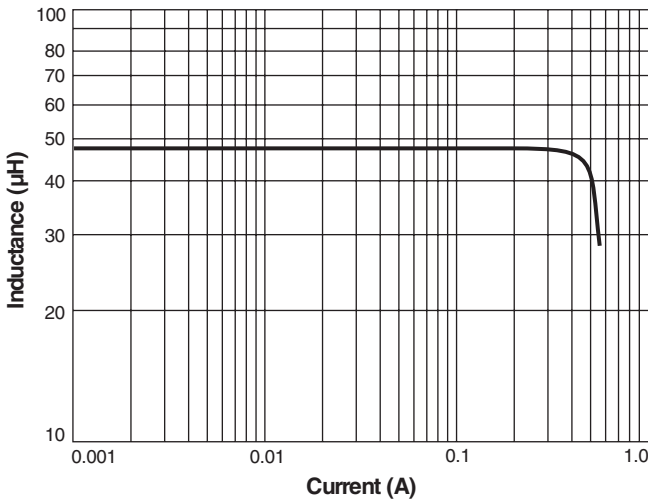
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This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.

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Shielded Power Inductor - PA6594-AE

L vs Current



* 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: ≤ 2 mm

