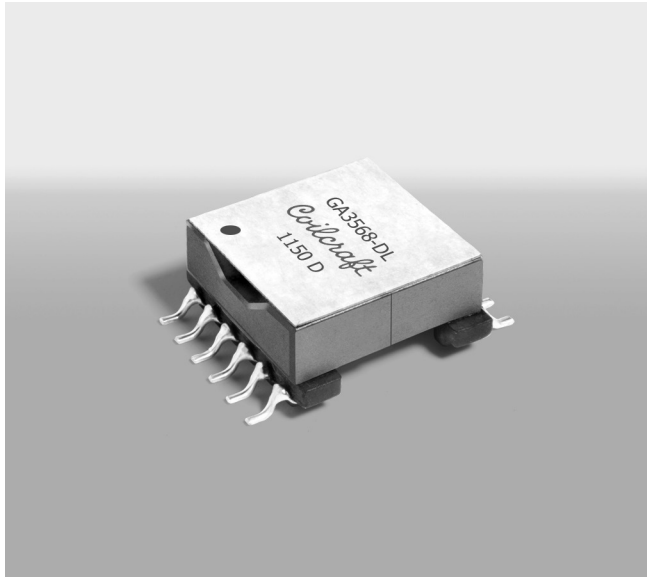




# Flyback Transformers

For Akros AS1135  
PoE Controller



- Flyback transformers for IEEE802.3at PoE applications
- Input voltage GA3568: 36 – 57 V; HA3809: 10 – 57 V
- 1500 Vrms, one minute isolation from primary and bias to secondary and sync windings.

**Core material** Ferrite

**Terminations** RoHS tin-silver (96.5/3.5) over tin over nickel over phos bronze. Other terminations available at additional cost.

**Weight** 11.4 – 11.8 g

**Ambient temperature** –40°C to +125°C

**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

**Packaging** 175 per 13" reel Plastic tape: 44 mm wide, 0.4 mm thick, 32 mm pocket spacing, 11.9 mm pocket depth

**PCB washing** Tested with pure water or alcohol only. For other solvents, see Doc787\_PCB\_Washing.pdf.

Part number <sup>1</sup>	Inductance at 0A <sup>2</sup> ±10% (µH)	Inductance at I <sub>pk</sub> <sup>3</sup> min (µH)	DCR max (Ohms) <sup>4</sup>				Leakage inductance <sup>5</sup> max (µH)	Turns ratios <sup>6</sup>			I <sub>pk</sub> <sup>3</sup> (A)	Output <sup>7</sup>
			pri	sec	bias	sync		pri:sec	pri:bias	pri:sync		
GA3568-DL_	60	54	0.132	0.0055	0.220	0.200	1.20	1:0.167	1:0.29	1:0.29	2.6	3.3 V, 9.1 A
HA3809-AL_	30	25	0.042	0.010	0.165	0.165	0.680	1:0.176	1:0.29	1:0.29	3.9	3.3 V, 9.1 A

1. When ordering, please specify **termination** and **packaging** codes:

**HA3809-ALD**

**Termination:** L = RoHS tin-silver (96.5/3.5) over tin over nickel over phos bronze.

**Special order:** T = RoHS tin-silver-copper (95.5/4/0.5) or

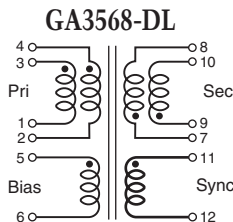
**S** = non-RoHS tin-lead (63/37).

**Packaging:** D = 13" machine-ready reel. EIA-481 embossed plastic tape (175 parts per full reel).

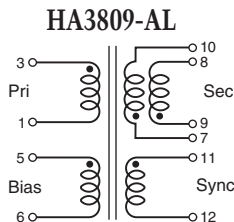
**B** = Less than full reel. In tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter D instead.

- Inductance is for the primary, measured at 300 kHz, 0.7 Vrms. For the GA3568-DL inductance is per winding.
- Peak primary current drawn at minimum input voltage.
- DCR for the secondary is with the windings connected in parallel. For GA3568-DL DCR for the primary is with both windings connected in parallel.
- Leakage inductance is for the primary windings with the secondary windings shorted.
- Turns ratios are for the primary (windings connected in parallel for the GA3568-DL) and with the secondary windings connected in parallel.
- Output of the secondary is with the windings connected in parallel. Bias winding output is 5 V, 20 mA.
- Electrical specifications at 25°C.

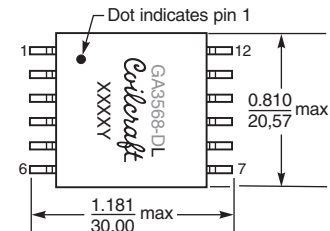
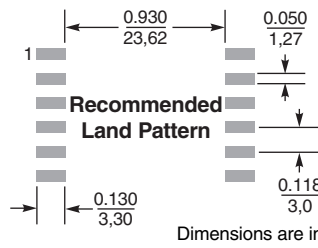
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



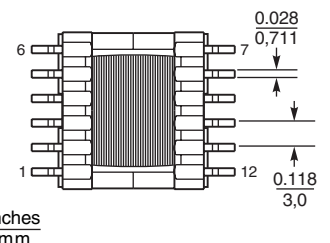
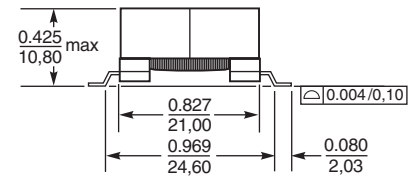
Primary windings and secondary windings each to be connected in parallel on PC board.



Secondary windings to be connected in parallel on PC board.



Parts manufactured prior to December 2011 may be marked differently.



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