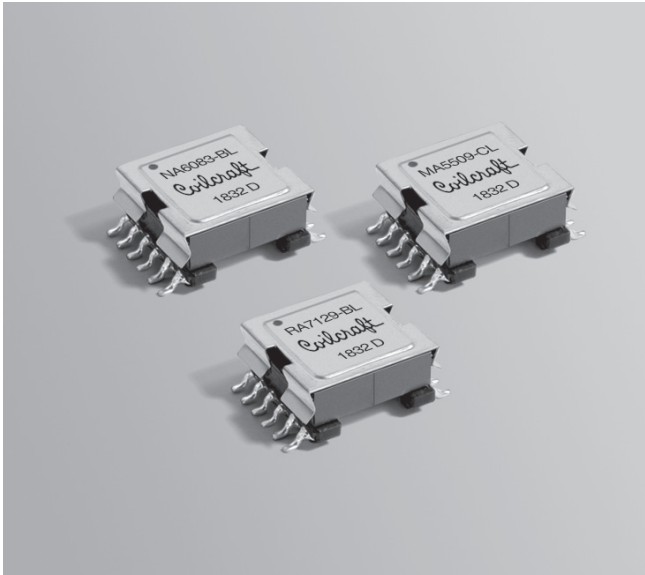




NEW!

High Power PoE Transformers

For ST PM8804 & ST PM8805 Reference Design



- Optimized for STMicroelectronics high-power PoE PD controller evaluation board STEVAL-POE00xV1
- Designed to meet upcoming IEEE 802.3bt standard
- Operates at 250 kHz with 36 – 72 Volts input.

Core material Ferrite

Terminations RoHS tin-silver-copper over tin over nickel over phos bronze. Other terminations available at additional cost.

Weight 11.5 – 13.5 g

Ambient temperature –40°C to +125°C

Max part temperature +165°C (ambient + self-heating)

Storage temperature –40°C to +165°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, 0.5 mm thick, 32 mm pocket spacing, 12 mm pocket depth

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

Active Clamp Forward Transformers

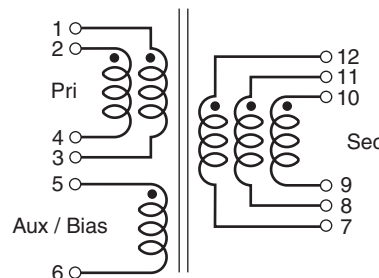
Part ¹ number	Inductance at 0A ² (µH)	DCR max (Ohms)			Leakage inductance ⁴ max (µH)	Turns ratio pri : sec : aux	Output	Isolation ⁵ (Vrms)
		pri	sec	aux				
RA7129-BLD	134 ± 25%	0.0265	0.0035	0.174	0.180	1 : 0.333 : 0.667	5 V, 20 A	1500
MA5509-CLD	70 ± 10%	0.0590	0.0028	0.300	0.838	1 : 0.200 : 0.533	3.3 V, 20 A	1500

Flyback Transformers

Part ¹ number	Inductance at 0A ² (µH)	Inductance at 3.5A ³ (µH)	DCR max (Ohms)			Leakage inductance ⁴ max (µH)	Turns ratio pri : sec : bias	Output	Isolation ⁵ (Vrms)
			pri	sec	bias				
NA6083-BLD	70 ± 10%	60	0.111	0.006	0.66	1.820	1 : 0.20 : 0.60	5 V, 20 A	1500

- Packaging:** D = 13" machine-ready reel. EIA-481 embossed plastic tape (175 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).
 - Inductance for is for the primary, measured at 250 kHz, 0.2 Vrms, 0 Adc.
 - Minimum inductance for the primary, measured at 250 KHz, 0.2 Vrms, 3.5 Adc.
 - Leakage inductance is for the primary winding with the secondary windings shorted.
 - Isolation (hipot) is measured for one minute: 1500Vrms from primary and aux/bias to secondary; 500Vrms from primary to aux/bias.
 - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

Schematic



Connect pin 1 to 2 and pin 3 to 4 on the PC board.
Connect pins 10, 11 and 12 together and pins 7, 8 and 9 together on the PC board



www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 1509-1 Revised 11/07/18

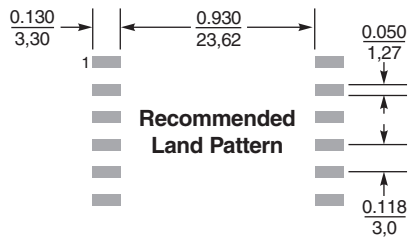
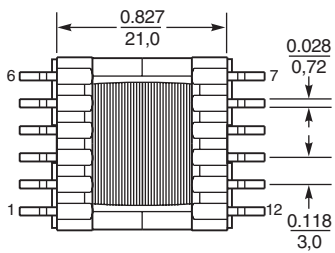
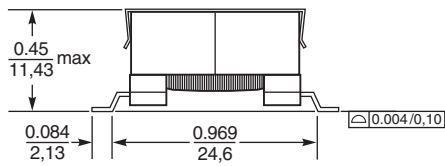
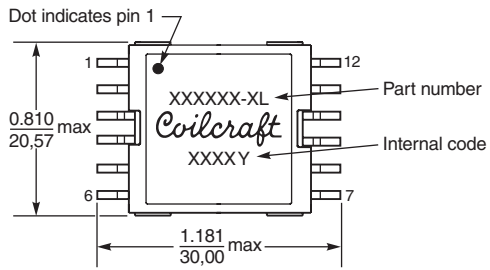
© Coilcraft Inc. 2018

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.



High Power PoE Transformers

Dimensions



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



US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 1509-2 Revised 11/07/18
 © Coilcraft Inc. 2018
 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.