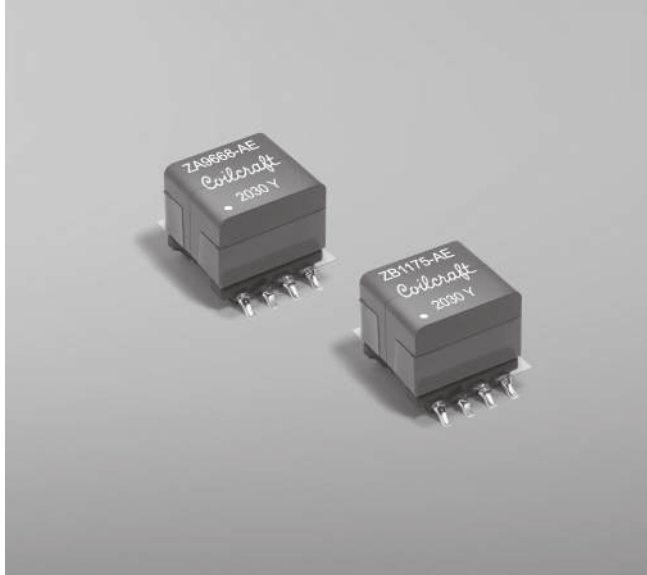




# Isolated Buck Transformers



- Optimized for STMicroelectronics 38V/5W automotive Iso-Buck converter A69861 and L69861
- Suitable for automotive isolated IGBT/SiC gate driver, On-board charger for HEV/EV, Electric Traction Systems, and similar applications
- AEC-Q200 Grade 1 (-40°C to +125°C)
- 3300 Vrms, one minute isolation (hipot) from primary to secondary

**Core material** Ferrite

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

**Weight** 4.12 g

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

**Max Part Temperature** +155°C (ambient + temperature rise)

**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)

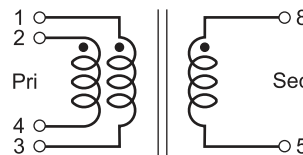
**Packaging** 250/13" reel Plastic tape: 32 mm wide, 0.5 mm thick, 20 mm pocket spacing, 11.2 mm pocket depth

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

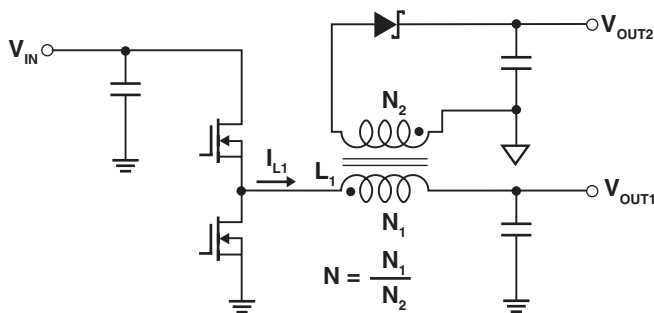
Part number <sup>1</sup>	L at 0 A <sup>2</sup> ±10% (µH)	Isat <sup>3</sup> (A)	Leakage inductance max (µH) <sup>4</sup>	DCR max (Ohms)		Turns ratio pri : sec	Isolation <sup>5</sup> (Vrms)	Power (W)	Output
				Pri	Sec				
ZA9668-AED	18	3.5	0.24	0.075	1.49	1 : 5.8	3300	5.8	29 V, 0.2 A
ZB1175-AED	18	2.6	0.18	0.053	0.16	1 : 1.6	3300	1.6	8 V, 0.2 A

- Packaging:** D = 13" machine-ready reel. EIA-481 embossed plastic tape (250 parts per reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).
  - Inductance is for the primary, measured at 500 kHz, 0.2 Vrms, 0 Adc.
  - DC current that causes the primary inductance drop 30% from its value without current. [Click for temperature derating information.](#)
  - Leakage Inductance is for the primary, measured with secondary windings shorted together.
  - 3300 Vrms, one minute isolation (hipot) from primary to secondary.
  - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

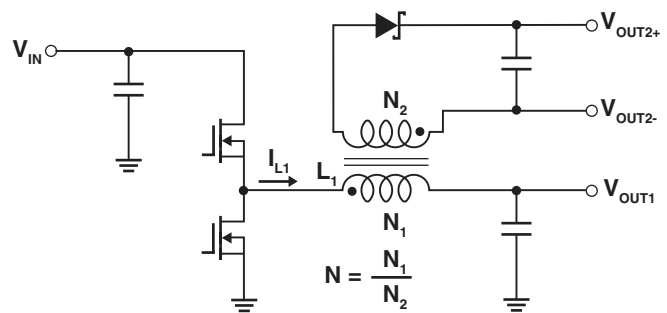
## Schematic



Connect pin 1 to 2 and pin 3 to 4 on the PC board



Typical Iso-Buck Converter with single isolated output

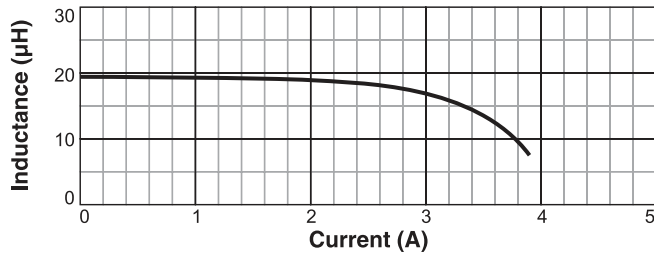


Typical Iso-Buck Converter with dual isolated output

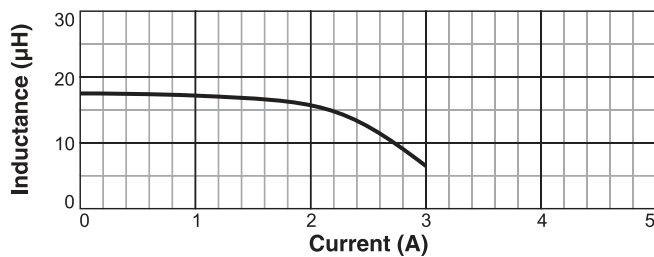


# Isolated Buck Transformer – ZA9668-AE & ZB1175-AE

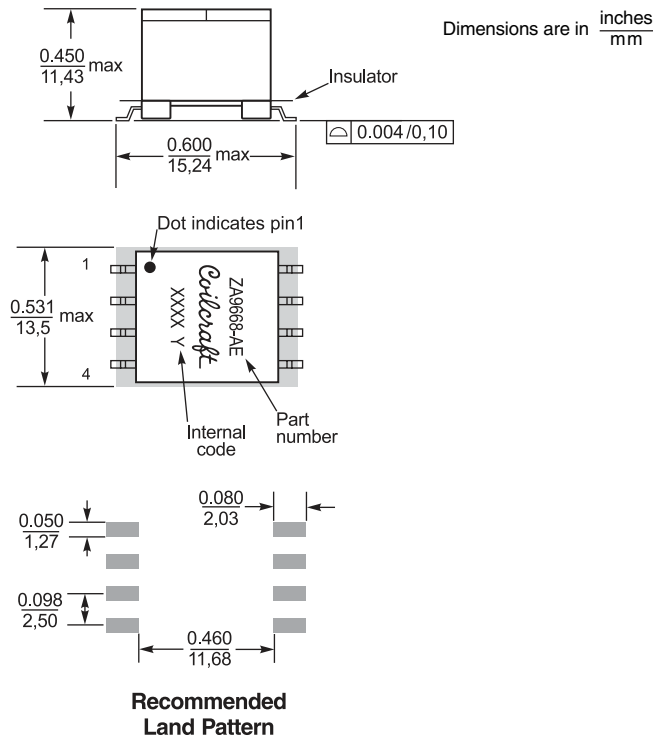
Typical L vs Current – ZA9668-AE



Typical L vs Current – ZB1175-AE



## Dimensions



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