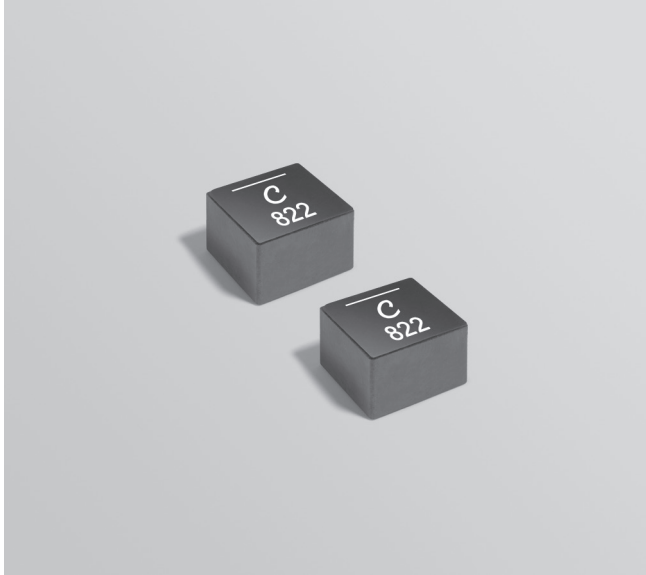




Shielded Power Inductor ZC1818



- Optimized for the evaluation board STEVAL-L3751V12 from STMicroelectronics
- High voltage rating of 85 V – higher than similar parts in the market
- Low DCR and soft saturation characteristic for high current applications
- AEC-Q200 qualified

Core material Composite

Core and winding loss [Go to online calculator](#)

Environmental RoHS compliant, halogen free

Terminations RoHS compliant tin-silver over copper.

Weight 13.1 g

Operating voltage: 85 V⁷

Ambient temperature –40°C to +125°C with (40°C rise) Irms current.

Maximum part temperature +165°C (ambient + temp rise). [Derating.](#)

Storage temperature Component: –55°C to +165°C.

Tape and reel packaging: –55°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)

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

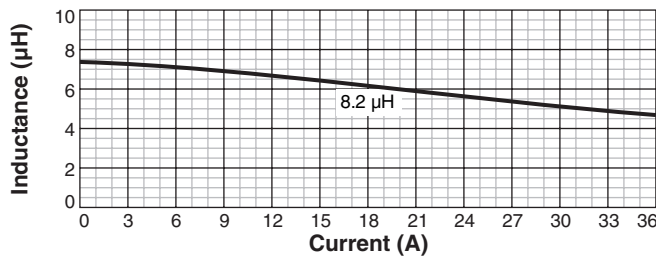
Part number ¹	Inductance ² ±20% (µH)	DCR (mOhms) ³		SRF typ ⁴ (MHz)	Isat (A) ⁵			Irms (A) ⁶	
		typ	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
ZC1818-AED	8.2	6.0	7.5	10.8	13.3	22.4	30.0	18	24

- Packaging:** D = 13" machine-ready reel. EIA-481 embossed plastic tape (150 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).
 - Inductance tested at 1 MHz, 0.1 Vrms, 0 Adc.
 - DCR measured on a micro-ohmmeter.
 - SRF measured using Agilent/HP 4395A or equivalent.
 - DC current at 25°C that causes an inductance drop of 30% (typ) from its value without current.
[Click for temperature derating information.](#)
 - Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings. Temperature rise is highly dependent on many factors including pcb land pattern, trace size, air flow, and proximity to other components. Therefore temperature rise should be verified in application conditions. [Click for temperature derating information.](#)
 - Voltage capability varies by part number and in many cases may be higher than the listed voltage.
 - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

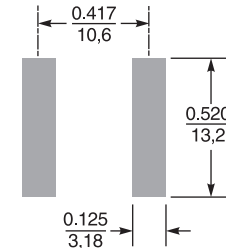
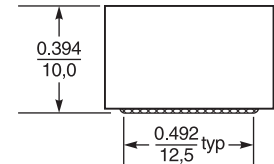
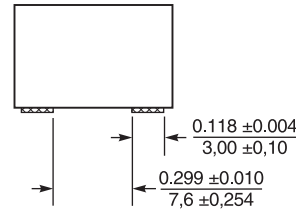
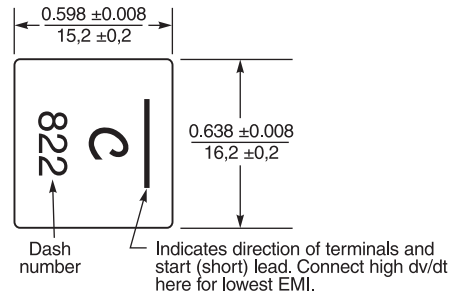
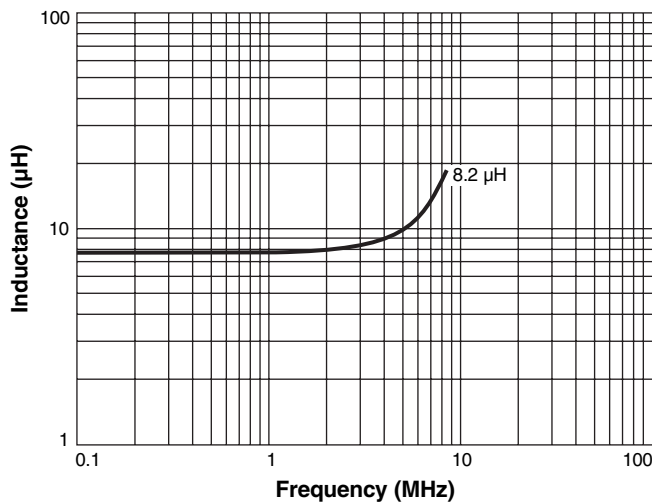


Shielded Power Inductor – ZC1818-AE

L vs Current



L vs Frequency



Recommended Land Pattern

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

* For optional tin-lead and tin-silver-copper terminations, dimensions are for the mounted part. Dimensions before mounting can be an additional 0.005 inch / 0.13 mm.

Packaging 150/13" reel Plastic tape: 32 mm wide, 0.4 mm thick, 24 mm pocket spacing, 10.26 mm pocket depth