

# CTXAL6030F Series

From 0.18µH to 4.5µH



## SPECIFICATIONS

\*Isat Typ. and Irms Typ. value is derived based from accounting the upper limit tolerance into the inductance value.

\*\*At all times, the current supplied to the product should not exceed Isat Max. value.

| Part Number     | Inductance (µH) ±20% @ 0A | Test Frequency | Irms (A) |       | Isat (A) |      | DCR (mΩ) |      | SRF (MHz) Ref. |
|-----------------|---------------------------|----------------|----------|-------|----------|------|----------|------|----------------|
|                 |                           |                | Typ.     | @40°C | Typ.     | Max. | Typ.     | Max. |                |
| CTXAL6030F-R18M | 0.18                      | 100KHz/0.1V    | 24.0     | 32.0  | 40.0     | 36.0 | 1.60     | 1.75 | 143            |
| CTXAL6030F-R33M | 0.33                      | 100KHz/0.1V    | 20.0     | 25.0  | 32.0     | 28.0 | 2.25     | 2.50 | 78             |
| CTXAL6030F-R56M | 0.56                      | 100KHz/0.1V    | 17.0     | 22.0  | 29.0     | 25.0 | 3.00     | 3.31 | 70             |
| CTXAL6030F-1R0M | 1.00                      | 100KHz/0.1V    | 13.0     | 18.0  | 23.0     | 18.0 | 5.50     | 6.05 | 52             |
| CTXAL6030F-1R2M | 1.20                      | 100KHz/0.1V    | 12.0     | 16.0  | 22.0     | 16.0 | 6.70     | 7.40 | 47             |
| CTXAL6030F-1R8M | 1.80                      | 100KHz/0.1V    | 10.0     | 14.0  | 18.2     | 13.0 | 9.20     | 10.2 | 33             |
| CTXAL6030F-2R2M | 2.20                      | 100KHz/0.1V    | 7.00     | 10.0  | 15.9     | 11.0 | 11.0     | 12.2 | 29             |
| CTXAL6030F-3R3M | 3.30                      | 100KHz/0.1V    | 6.00     | 8.00  | 12.2     | 9.00 | 18.8     | 20.8 | 25             |
| CTXAL6030F-4R5M | 4.50                      | 100KHz/0.1V    | 5.00     | 7.00  | 10.0     | 8.00 | 23.0     | 25.3 | 20             |

## PHYSICAL DIMENSIONS

Unit: mm

|                 | A       | B       | C       | D    | E       | F        |
|-----------------|---------|---------|---------|------|---------|----------|
| CTXAL6030F-R18M | 6.6±0.2 | 6.4±0.2 | 2.8±0.2 | 5.30 | 1.4±0.2 | 2.6±0.25 |
| CTXAL6030F-R33M | 6.6±0.2 | 6.4±0.2 | 2.8±0.2 | 5.55 | 1.4±0.2 | 2.6±0.25 |
| CTXAL6030F-R56M | 6.6±0.2 | 6.4±0.2 | 2.8±0.2 | 5.30 | 1.4±0.2 | 2.6±0.25 |
| CTXAL6030F-1R0M | 6.6±0.2 | 6.4±0.2 | 2.8±0.2 | 5.20 | 1.4±0.2 | 2.6±0.25 |
| CTXAL6030F-1R2M | 6.6±0.2 | 6.4±0.2 | 2.8±0.2 | 5.15 | 1.4±0.2 | 2.6±0.25 |
| CTXAL6030F-1R8M | 6.6±0.2 | 6.4±0.2 | 2.9±0.2 | 5.10 | 1.4±0.2 | 2.6±0.25 |
| CTXAL6030F-2R2M | 6.6±0.2 | 6.4±0.2 | 2.9±0.2 | 5.05 | 1.4±0.2 | 2.6±0.25 |
| CTXAL6030F-3R3M | 6.6±0.2 | 6.4±0.2 | 2.9±0.2 | 5.00 | 1.4±0.2 | 2.6±0.25 |
| CTXAL6030F-4R5M | 6.6±0.2 | 6.4±0.2 | 2.9±0.2 | 5.00 | 1.4±0.2 | 2.6±0.25 |

## CHARACTERISTICS

**Description:** SMD high current power inductors

**Applications:** Ideal for VRM/VRD applications

**Operating Temperature:** -40°C to +125°C (including self-temperature rise)

**Storage Temperature:** -40°C to +125°C (on board)

**Humidity Range:** 85±2% RH

**Irms:** Will cause the coil temperature rise approximately Δt of 40°C (keep 1 min)

**Isat Typ.:** Will cause L0 to drop approximately 30%

**Part Temperature (Ambient+Temp.Rise):** Should not exceed 125°C under worst case operating conditions

**Storage Condition (component in its packaging):**

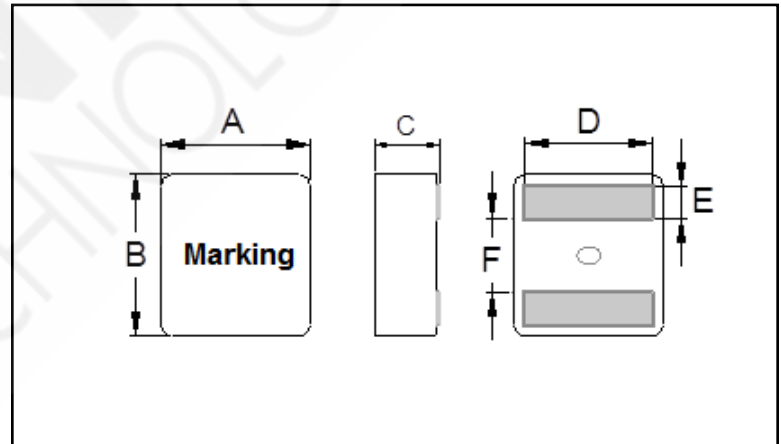
1. **Temperature:** Less than 40°C
2. **Humidity:** 60% RH

**Packaging:** Tape & Reel

**Miscellaneous:** RoHS Compliant

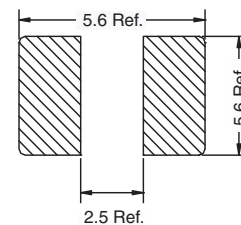
**Additional Information:** Additional electrical & physical information available upon request

**Samples available. See website for ordering information.**



## PAD LAYOUT

Unit: mm



### Notes:

- 1.) The above Pad Layout is for reference only
- 2.) Solder paste thickness of 0.15mm and above is recommended