

Product specifications

Part Number ⁵	OCL ¹ (nH)	I _{rms} ² (Amps)	I _{sat} ³ (Amps)	DCR @ 20°C ⁴	Q minimum reference only ⁶
CTX01-19089-R	500	20	40	1.15 ± 0.173 (mΩ)	135

1. Open Circuit Inductance (OCL) Test Parameters: 1MHz, 0.1V_{rms}, 0.0Adc, 25°C ±10% (Pins 1-3, short 2-4)

2. I_{rms}: DC current for an approximate temperature rise of 40°C without core loss. Derating is necessary for AC currents. PCB layout, trace thickness and width, air-flow, and proximity of other heat generating components will affect the temperature rise. It is recommended that the temperature of the part not exceed 125°C under worst case operating conditions verified in the end application.
3. I_{sat}: Peak current for approximately 2% rolloff at +25°C

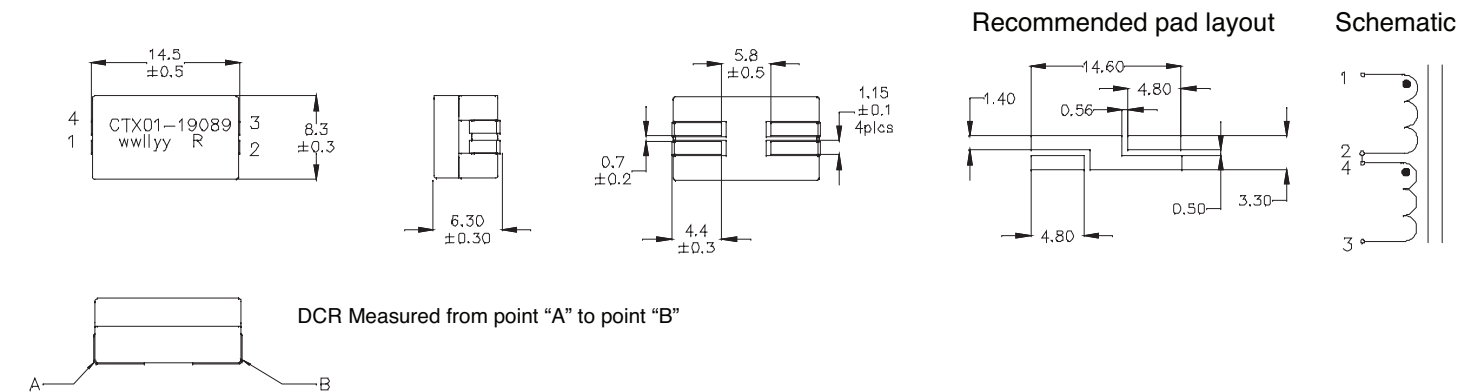
4. DCR tested from Pins (1-2) and (3-4)

5. Part Number Definition: CTX01-19089-R
- CTX01-19089 = Part number
- "-R" suffix = RoHS compliant

6. Q Test Parameters: 1MHz, 0.1V_{rms}, 25°C (Pins 1-3, short 2-4)

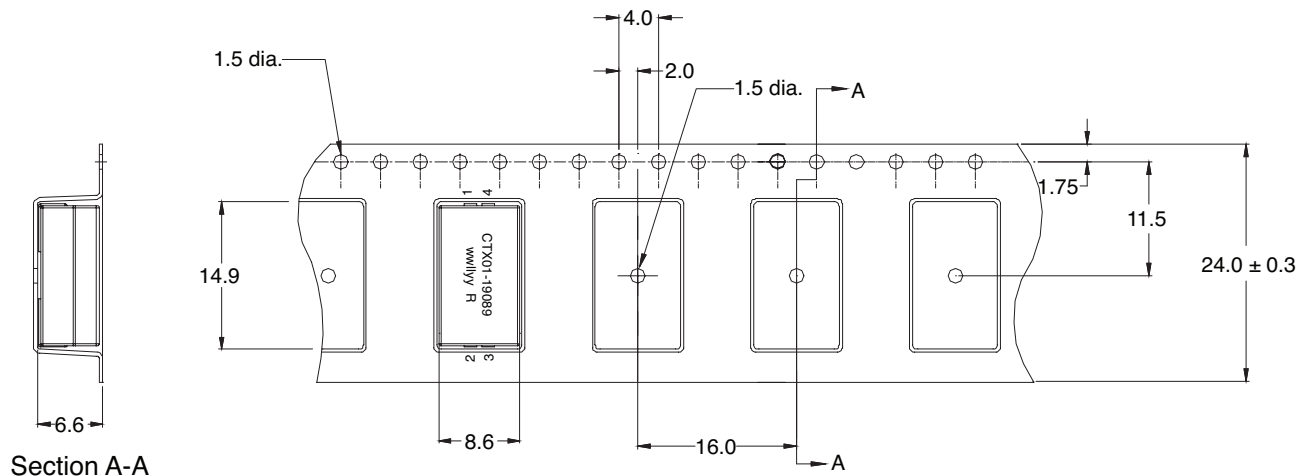
Note: Hipot: 200Vdc minimum for 2 seconds, 0.1mA pins (1-2) to (4-3)

Dimensions - mm



Part marking: CTX01-19089, wwllly = date code, R = revision level.
Soldering surfaces to be coplanar within 0.1 millimeter.
Pins 2 and 4 are connected through the PCB trace.

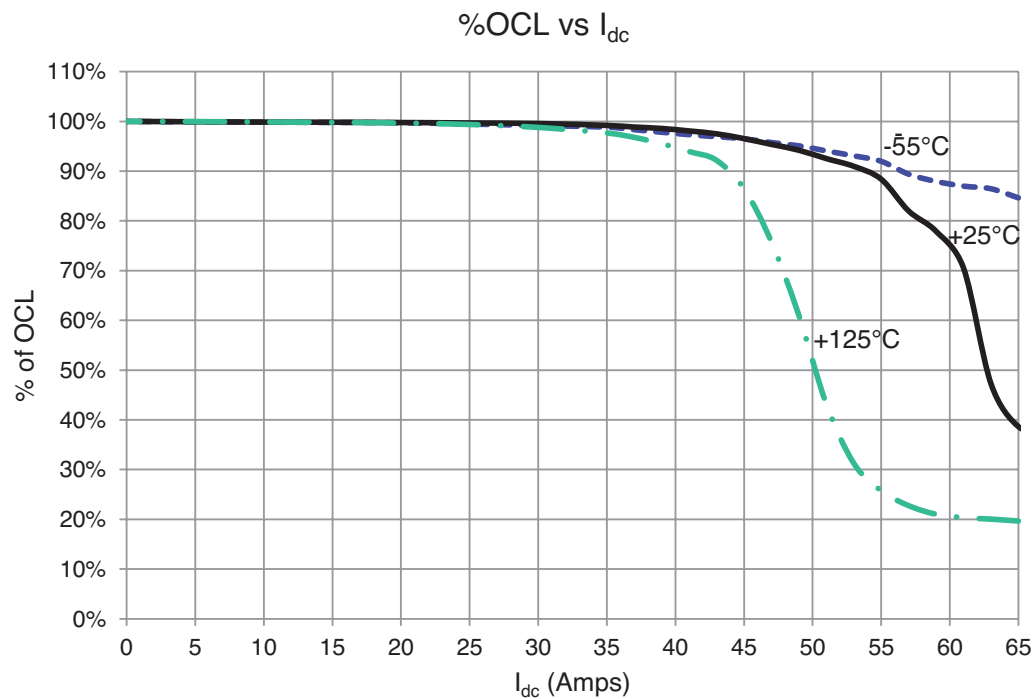
Packaging information - mm



Supplied in tape and reel packaging, 600 parts per 13" diameter reel.

User direction of feed →

Inductance characteristics



Solder reflow profile

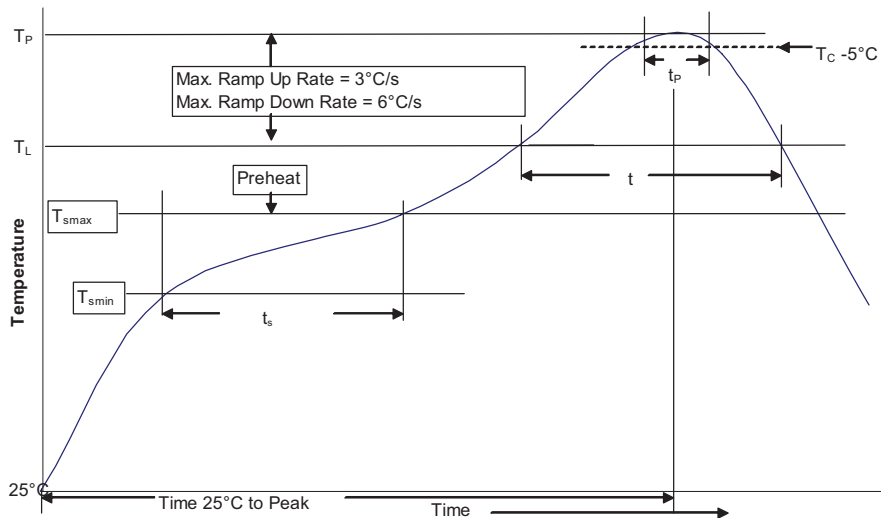


Table 1 - Standard SnPb Solder (T_C)

Package Thickness	Volume mm ³ <350	Volume mm ³ ≥350
<2.5mm	235°C	220°C
≥2.5mm	220°C	220°C

Table 2 - Lead (Pb) Free Solder (T_C)

Package Thickness	Volume mm ³ <350	Volume mm ³ 350 - 2000	Volume mm ³ >2000
<1.6mm	260°C	260°C	260°C
1.6 – 2.5mm	260°C	250°C	245°C
>2.5mm	250°C	245°C	245°C

Reference JDEC J-STD-020D

Profile Feature	Standard SnPb Solder	Lead (Pb) Free Solder
Preheat and Soak		
• Temperature min. (T _{smin})	100°C	150°C
• Temperature max. (T _{smax})	150°C	200°C
• Time (T _{smin} to T _{smax}) (t _s)	60-120 Seconds	60-120 Seconds
Average ramp up rate T _{smax} to T _p	3°C/ Second Max.	3°C/ Second Max.
Liquidous temperature (T _L)	183°C	217°C
Time at liquidous (t _L)	60-150 Seconds	60-150 Seconds
Peak package body temperature (T _p)*	Table 1	Table 2
Time (t _p)** within 5 °C of the specified classification temperature (T _C)	20 Seconds**	30 Seconds**
Average ramp-down rate (T _p to T _{smax})	6°C/ Second Max.	6°C/ Second Max.
Time 25°C to Peak Temperature	6 Minutes Max.	8 Minutes Max.

* Tolerance for peak profile temperature (T_p) is defined as a supplier minimum and a user maximum.

** Tolerance for time at peak profile temperature (t_p) is defined as a supplier minimum and a user maximum.

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