



**THE DATASHEET OF
CAY16-100J4LF**





Features

- RoHS compliant*
- Convex and concave terminals
- 4 isolated elements
- Resistance tolerance $\pm 1\%$ and $\pm 5\%$
- Resistance range: 10 ohms to 1 megohm

CAT/CAY 16 Series - Chip Resistor Arrays

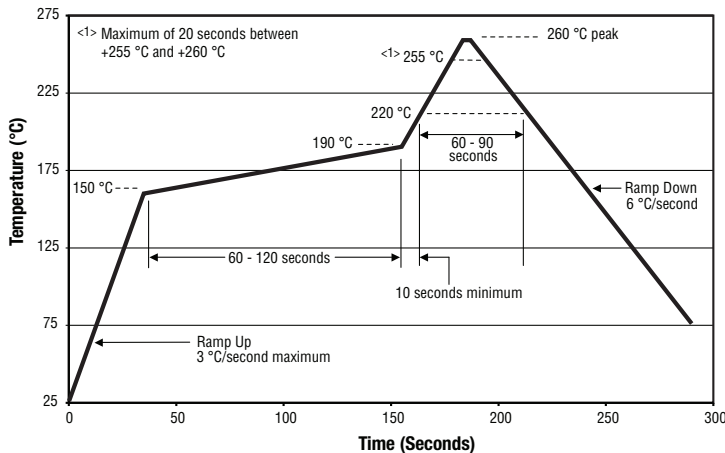
Specifications

| Requirement | Characteristics | Test Method |
|-------------------------|---------------------|----------------------------------------------------------------------------------------|
| Short Time Overload | $\pm 2\%$ +0.1 ohm | Rated Voltage X 2.5, 5 seconds |
| Soldering Heat | $\pm 2\%$ +0.1 ohm | 260 °C ± 5 °C, 10 seconds ± 1 second |
| Temperature Cycling (5) | $\pm 1\%$ + 0.1 ohm | 125 °C (30 minutes) - normal (15 minutes) -55 °C (30 minutes) - normal (15 minutes) |
| Moisture Load Life | $\pm 3\%$ +0.1 ohm | 1000 hours |
| Load Life | $\pm 3\%$ +0.1 ohm | 1000 hours |

Characteristics

| Characteristics | CAT16/CAY16 |
|------------------------------------------------------------------------|-----------------------|
| Number of Elements | 4 (F4, J4) |
| Power Rating Per Resistor @ 70 °C | 0.0625 W |
| Package Power Rating @ 70 °C | 0.250 W |
| Temperature Coefficient of Resistance | ± 200 PPM/°C |
| Resistance Tolerance | $\pm 1\%$, $\pm 5\%$ |
| Resistance Range: E24 (J), E96 + E24 (F) Zero-Ohm Jumper < 0.05 ohm | 10 ohms - 1 megohm |
| Max. Working Voltage | 50 V |
| Max. Overload Voltage | 100 V |
| Operating Temp. Range | -55 °C - 125 °C |

Soldering Profile for RoHS Compliant Chip Resistors and Arrays



How To Order

CA Y 16 - 103 J 4 LF

Chip Arrays _____

Type _____

- CAT16 = Concave Terminations
- CAY16 = Convex Terminations

Resistance Code _____

- For 1 % Tolerance:
 - <100 ohms - "R" represents decimal point (example: 24R3 = 24.3 ohms)
 - ≥ 100 ohms - First three digits are significant, fourth digit represents number of zeros to follow (example: 8252 = 82.5k ohms)
- For 5 % Tolerance:
 - <10 ohms - "R" represents decimal point (example: 4R7 = 4.7 ohms)
 - ≥ 10 ohms - First two digits are significant, third digit represents number of zeros to follow (example: 474 = 470k ohms)
- 000 = Zero Ohm Jumper

Resistance Tolerance _____

- J = $\pm 5\%$ (4 resistor pkg. and Zero Ohm Jumper)
- F = $\pm 1\%$

Resistors _____

- 4 = 4 Isolated Resistors

Terminations _____

- LF = Tin-plated (RoHS compliant)

Packaging Size

F4, J4 1206 Package Size

For Standard Values Used in Capacitors, Inductors, and Resistors, [click here](#).

Additional Information

Click these links for more information:



WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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CAT/CAY 16 Series - Chip Resistor Arrays

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Derating Curve



Schematics



Dimensions

| Model | A | A' | B | C | D | E | F |
|---------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|-----------------------------------|----------------------------------|----------------------------------|
| CAT16-F4 | 0.40 ± 0.15 (.016 ± .006) | — | 3.20 ± 0.20 (.126 ± .008) | 0.80 ± 0.10 (.032 ± .004) | 1.60 ± 0.20 (.063 ± .008) | 0.50 ± 0.10 (.020 ± .004) | 0.30 ± 0.15 (.012 ± .006) |
| CAT16-J4 | 0.40 ± 0.15 (.016 ± .006) | — | 3.20 ± 0.20 (.126 ± .008) | 0.80 ± 0.10 (.032 ± .004) | 1.55 ± 0.25 (.061 ± .0098) | 0.50 ± 0.10 (.020 ± .004) | 0.30 ± 0.20 (.012 ± .008) |
| CAY16-F4, -J4 | 0.50 ± 0.15 (.020 ± .006) | 0.70 ± 0.10 (.027 ± .004) | 3.20 ± 0.20 (.126 ± .008) | 0.80 ± 0.05 (.032 ± .002) | 1.60 ± 0.20 (.063 ± .008) | 0.50 ± 0.10 (.020 ± .004) | 0.30 ± 0.20 (.012 ± .008) |

Configurations



DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

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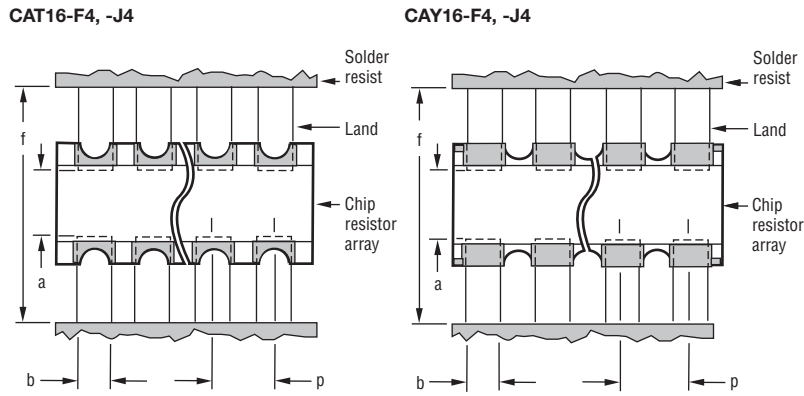
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CAT/CAY 16 Series - Chip Resistor Arrays

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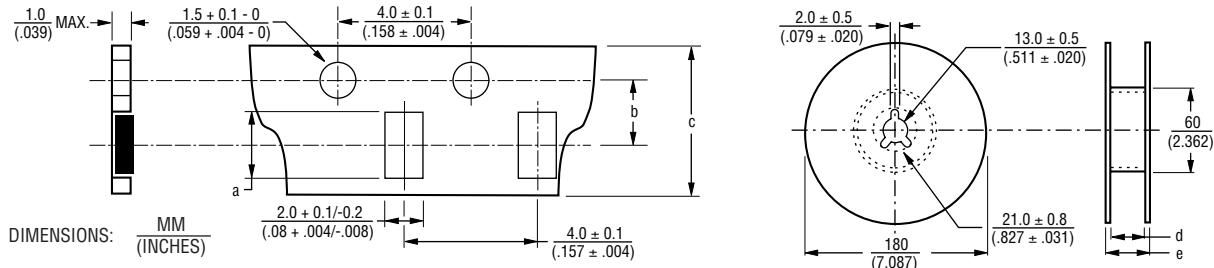
Land Patterns



DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

| Model | a | b | p | f |
|---------------|-------------------------------------------------------|---------------------------------------------------------|-----------------------|-------------------------------------------------------|
| CAT16-F4, -J4 | $\frac{0.7 \text{ to } 0.9}{(.028 \text{ to } .035)}$ | $\frac{0.4 \text{ to } 0.45}{(.016 \text{ to } .0178)}$ | $\frac{0.80}{(.032)}$ | $\frac{2.2 \text{ to } 2.6}{(.087 \text{ to } .102)}$ |
| CAY16-F4, -J4 | $\frac{0.7 \text{ to } 0.9}{(.028 \text{ to } .035)}$ | $\frac{0.4 \text{ to } 0.45}{(.016 \text{ to } .0178)}$ | $\frac{0.80}{(.032)}$ | $\frac{2.4 \text{ to } 2.8}{(.094 \text{ to } .11)}$ |

Packaging Dimensions



| Model | a | b | c | d | e |
|------------------------------|-----------------------------------------|-----------------------------------------|---------------------------------------|---------------------------------------|----------------------------------------|
| CAT16-F4, -J4 & CAY16-F4, J4 | $\frac{3.60 \pm 0.20}{(.142 \pm .008)}$ | $\frac{3.50 \pm .005}{(.138 \pm .004)}$ | $\frac{8.0 \pm 0.3}{(.315 \pm .012)}$ | $\frac{9.0 \pm 0.3}{(.354 \pm .012)}$ | $\frac{11.4 \pm 1.0}{(.449 \pm .040)}$ |

- 5,000 pcs. per reel
- Paper tape

REV. 02/23

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Chip Resistor Arrays - Application Note

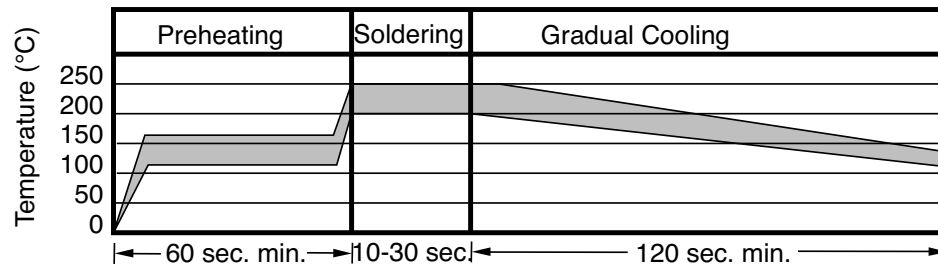
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Component Placement

- Reduce the mechanical stress to a minimum during and after placing of the unit in order not to damage the terminals and protective coating.
- Misplacement of components may cause solder bridges.

Soldering

- Reflow soldering: Recommendation is shown in the following chart.
- Wave soldering: Recommendation according to IEC standards.
- Hand soldering: Don't touch the protective coating of the part. Solder within 3 seconds when the temperature is over 280 °C.



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