



**THE DATASHEET OF  
CAY16-3000F4LF**





## 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

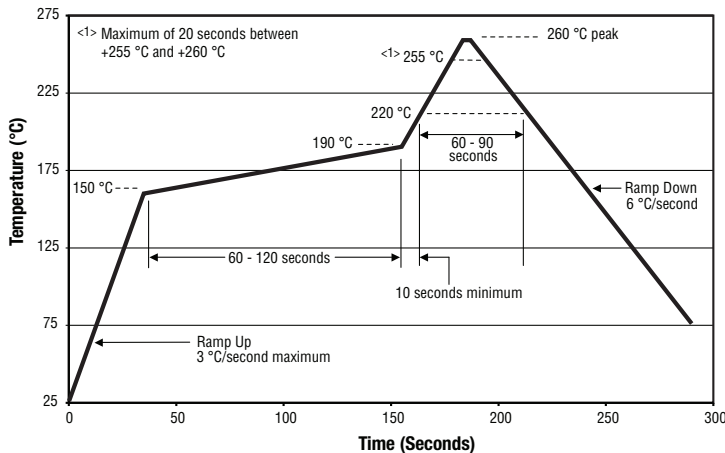
### Specifications

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 $\pm 5$ °C, 10 seconds $\pm 1$ 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	$\pm 200$ 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)
  - $\geq 100$  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)
  - $\geq 10$  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](http://www.P65Warnings.ca.gov)**

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

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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	$0.40 \pm 0.15$ (.016 ± .006)	—	$3.20 \pm 0.20$ (.126 ± .008)	$0.80 \pm 0.10$ (.032 ± .004)	$1.60 \pm 0.20$ (.063 ± .008)	$0.50 \pm 0.10$ (.020 ± .004)	$0.30 \pm 0.15$ (.012 ± .006)
CAT16-J4	$0.40 \pm 0.15$ (.016 ± .006)	—	$3.20 \pm 0.20$ (.126 ± .008)	$0.80 \pm 0.10$ (.032 ± .004)	$1.55 \pm 0.25$ (.061 ± .0098)	$0.50 \pm 0.10$ (.020 ± .004)	$0.30 \pm 0.20$ (.012 ± .008)
CAY16-F4, -J4	$0.50 \pm 0.15$ (.020 ± .006)	$0.70 \pm 0.10$ (.027 ± .004)	$3.20 \pm 0.20$ (.126 ± .008)	$0.80 \pm 0.05$ (.032 ± .002)	$1.60 \pm 0.20$ (.063 ± .008)	$0.50 \pm 0.10$ (.020 ± .004)	$0.30 \pm 0.20$ (.012 ± .008)

## Configurations



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

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# CAT/CAY 16 Series - Chip Resistor Arrays

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## Land Patterns

CAT16-F4, -J4

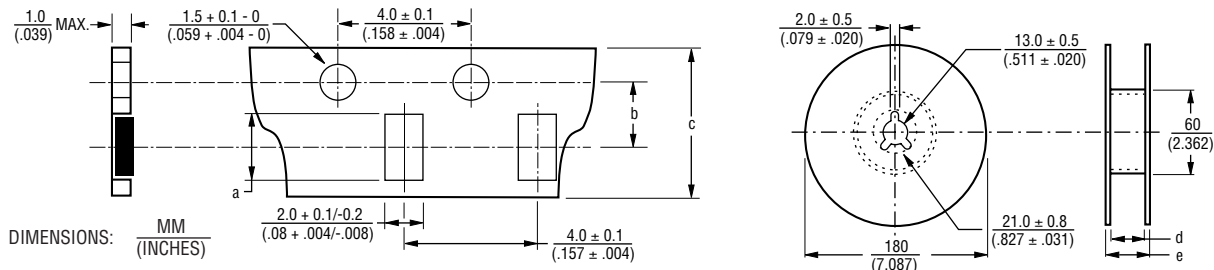
CAY16-F4, -J4



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

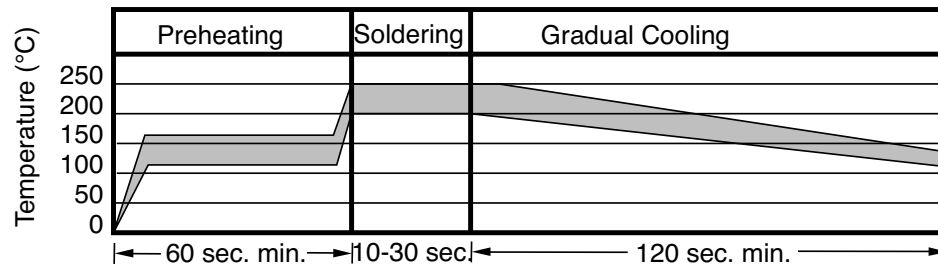
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## Component Placement

- 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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