

BOURNS®

Features

- Convex and concave terminals
- 2 and 4 elements available
- Resistance tolerance 5% and 1%
- E12 series from 10 ohms to 1 megohm

CAT/CAY Series - Chip Resistor Arrays

Specifications

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

Characteristics

Characteristics	CAT16/CAY16
Number of Elements	2,4
Power Rating	62mW
Resistance Tolerance	5%, 1%
Resistance Range E12	10 ohms - 1 megohm
T.C.R.	±200ppm/°C
Max. Working Voltage	50V
Operating Temp. Range	-55°C - 125°C
Rating Temperature	+70°C

How To Order

Chip Arrays	CA	Y	16	-	103	J	4
Type							
• T = Concave							
• Y = Convex							
Models							
• 16 = 0603 Chip							
Resistance							
• 103 = 10K							
• 1003 = 10K							
Tolerance							
• F = 1%							
• J = 5%							
Resistors							
• 2 = 2 pcs.							
• 4 = 4 pcs.							

Dimensions

Model	Number Of Elements	A	B	C	D	E	F
CAT16	2	0.5±0.15	$\frac{1.6 \pm 0.2}{(.063 \pm .008)}$	0.8±0.05	1.6±0.2	0.5±0.1	0.3±0.15
CAY16 CAT 16	4*	(.02±.006)	$\frac{3.2 \pm 0.2}{(.126 \pm .008)}$	(.032±.002)	(.063±.008)	(.02±.004)	(.012±.006)

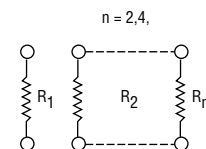
*5% preferred, 1% available

Tape And Reel Packaging

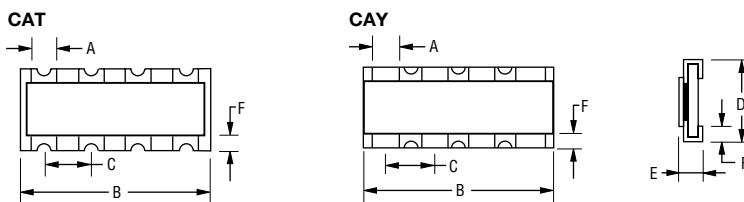
Model Number	Pieces per Reel	
	2r	4r
CAT16*/CAY16*	5,000	5,000

*Plastic Reel with Paper Tape

Schematic



Configuration



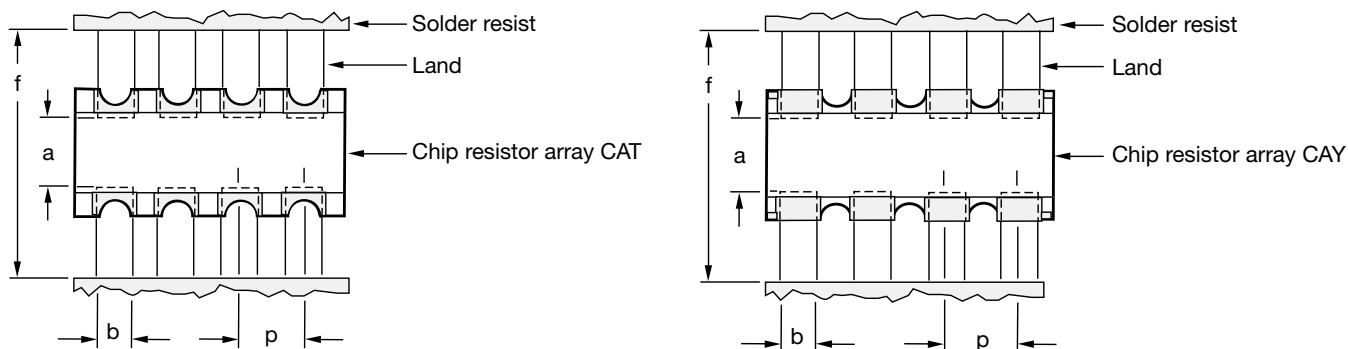
DIMENSIONS ARE: $\frac{\text{METRIC}}{(\text{INCHES})}$

Chip Resistor Arrays - Application Note

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1. Land Pattern Design

Recommended land pattern design for the chip arrays shown in the following illustration.



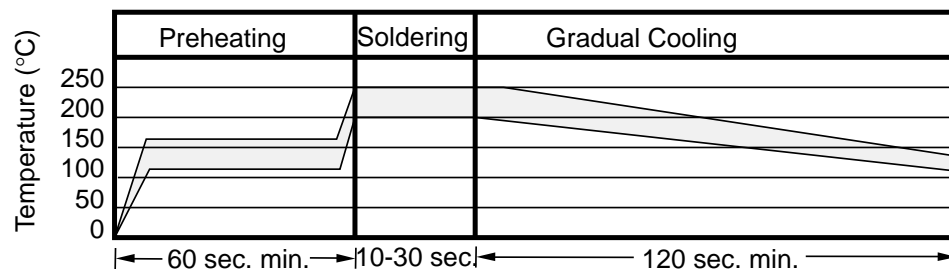
Model	a	b	p	f
CAT16..4	$\frac{0.7 \text{ to } 0.9}{(.028 \text{ to } .035)}$	$\frac{0.4 \text{ to } 0.45}{(.016 \text{ to } .0178)}$	$\frac{0.80}{(.032)}$	$\frac{2.0 \text{ to } 2.2}{(.079 \text{ to } .087)}$
CAY16..4	$\frac{0.7 \text{ to } 0.9}{(.028 \text{ to } .035)}$	$\frac{0.4 \text{ to } 0.45}{(.016 \text{ to } .0178)}$	$\frac{0.80}{(.032)}$	$\frac{2.4 \text{ to } 2.8}{(.094 \text{ to } .11)}$

2. 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.

3. Soldering

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



4. Cleaning

A recommended cleaning method is shown in the following table.

Solvents	Cleaning Condition	
	Dipping	Ultrasonic Wave Washing
Isopropyl alcohol	5 minutes maximum	1 minute maximum Power: 20W/L Frequency: 10 to 100kHz

DIMENSIONS ARE: $\frac{\text{METRIC}}{(\text{INCHES})}$