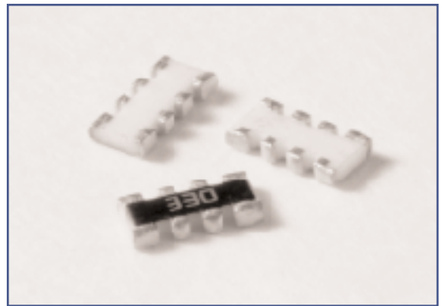
Convex Chip Resistor Arrays Series 742, 745, 746



Thick Film Chip Resistor Arrays
- Low cost
- High density packaging
- Leadless surface mount construction
- Tape & reel packaging
- Solder-coated nickel barrier pads
- Isolated and bussed circuits
- Compatible with all solder processes IR reflow, Vapor phase reflow

High Density Packaging:
- 30% less space per resistor than 0603 chip resistors
- 75% less space per resistor than 0805 chip resistors

Placement Efficiency:
Arrays require fewer placements than discrete components. Larger overall size eases handling compared to discrete components.

Low Profile:
Can be used in PCMCIA cards

Resistance Tolerance:
Standard: ±5% or 0.5Ω (whichever is greater)

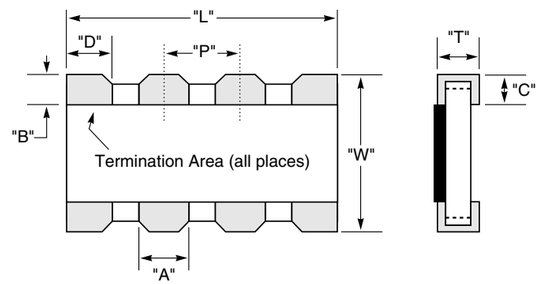
Operating Temperature Range:
-55°C to +125°C

Temperature Coefficient (TCR):
Standard: 200PPM/°C

Package Outlines

Convex Termination Type X

Dimensions: mm / inch



Power Derating	page 45
Land Patterns	pages 46-47
Packaging	pages 48-49
Environmental Performance Specifications	pages 50-51

The TCE of the mounting surface will affect the long term reliability of the solder joint between the Series 742, 745, 746 and the mounting surface. Application requirements vary and each user must determine if the Series 742, 745, 746 is appropriate for the application.

Part Code	# Pads	# Res.	Circuit	L	W	P	T	A	B	C	D
742X083	8	4	Isolated	3.2±0.2 0.126±008	1.6±0.2 0.063±008	0.8±0.05 0.032±002	0.5±0.1 0.020±004	0.5±0.15 0.020±006	0.3±0.15 0.012±006	0.3±0.15 0.024±006	N/A
745X101 745X102	10	8	Bussed	6.4±0.2 0.252±008	3.2±0.2 0.126±008	1.27±0.05 0.050±002	0.6±0.1 0.024±004	0.9±0.15 0.035±006	0.5±0.2 0.020±008	0.5±0.15 0.020±006	1.1±0.15 0.043±006
746X101	10	8	Bussed	3.3±0.1 0.130±004	1.65±0.15 0.065±006	0.64±0.05 0.025±002	0.6±0.1 0.024±004	0.35±0.05 0.014±002	0.4±0.10 0.016±004	0.45±0.10 0.018±004	0.5±0.05 0.020±002

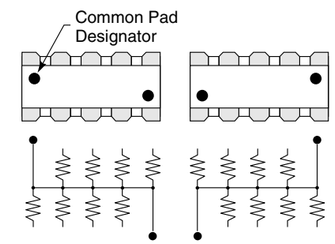
Series	PCB Area (in²) Per Resistor	Circuit Type	Resistance Range Ω	70°C Power Per Resistor*	Maximum Operating Voltage
742X	0.0037	Isolated	10 - 1M	0.063W	50V
745X	0.0058	Bussed	33 - 100K	0.063W	50V
746X	0.0013	Bussed	33 - 100K	0.031W	25V

* Total package power equals total number of resistors times rated power per resistor.

Standard Packages & Style Codes

Convex Termination

50 mil pitch (1.27mm)

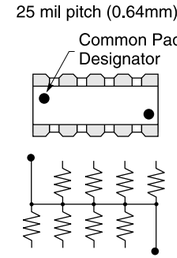


745X101
8 Resistors
10 Terminations

745X102
8 Resistors
10 Terminations

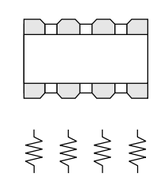
Note: The Marking Concept for Convex and Concave Series 745 is Different.

25 mil pitch (0.64mm)



746X101
8 Resistors
10 Terminations

32 mil pitch (0.8mm)



742X083
4 Resistors
8 Terminations

(Ohms)	EIA Code
0 *	000X
10	100
12	120
15	150
18	180
22	220
27	270
33	330
39	390
47	470
51	510
56	560
68	680
75	750
82	820
100	101
110	111
120	121
150	151
180	181
220	221
270	271
330	331
390	391
470	471
510	511
560	561
680	681
820	821
1000	102
1100	112
1500	152
1800	182
2200	222
2700	272

*50mΩ max

(Ohms)	EIA Code
3300	332
3900	392
4700	472
5100	512
5600	562
6800	682
8200	822
10000	103
11000	113
12000	123
15000	153
18000	183
22000	223
27000	273
33000	333
39000	393
47000	473
51000	513
56000	563
68000	683
82000	823
100000	104
110000	114
120000	124
150000	154
180000	184
220000	224
270000	274
330000	334
390000	394
470000	474
510000	514
560000	564
680000	684
820000	824
1000000	105

How to Order Chip Resistor Arrays

742X 08 3 101 J

- **Series** 742X, 745X, 746X
- **No. Terminations** 08; 10 (745 and 746 only)
- **Schematic** 1 Bussed (745 and 746 only); 2 Bussed (745 and 746 only); 3 Isolated (742)
- **Resistor Code** 1% = 4 Digit EIA Code; 2%, 5% = 3 Digit EIA Code
- **Tolerance** J = ±5% (Standard); G = ±2% F=±1%; x= Zero Ohm Jumper

NOTE: No dashes or spaces to appear in part number. **Example:** 742X083101J See page 45 for part marking information.