

Chip Resistor Array

- Type: **EXB1 : 0201 Array**
EXB2 : 0402 Array
EXB3 : 0603 Array
EXBN : 0402 Array
EXBV : 0603 Array
EXBS : 0805 Array



Features

- High density
 - 2 resistors in 0.8 mm × 0.6 mm size (EXB14V)
 - 4 resistors in 1.4 mm × 0.6 mm size (EXB18V)
 - 2 resistors in 1.0 mm × 1.0 mm size (EXB24V)
 - 4 resistors in 2.0 mm × 1.0 mm size (EXB28V, N8V)
 - 8 resistors in 3.8 mm × 1.6 mm size (EXB2HV)
 - 2 resistors in 1.6 mm × 1.6 mm size (EXB34V, V4V)
 - 4 resistors in 3.2 mm × 1.6 mm size (EXB38V, V8V)
 - 4 resistors in 5.1 mm × 2.2 mm size (EXBS8V)

Packaging Methods

Please see Pages 40 to 43

Recommended Land Pattern

Please see Pages 44 to 45

Recommended Soldering Conditions

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Safety Precautions

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Improvement of placement efficiency

Placement efficiency of Chip Resistor Array is two, four or eight times of the flat type chip resistor

Reference Standard

IEC 60115-9, JIS C 5201-9, EIAJ RC-2129

Explanation of Part Numbers

1	2	3	4	5	6	7	8	9	10	11
E	X	B	V	8	V	4	7	2	J	V

Product Code	Chip Resistor Array Type: inch	No. of Terminal	Schematics	Resistance Value	Resistance Tolerance	Packaging Methods		
Thick Film Chip Resistor Networks	1 0201 Array	4 4 Terminal	V Isolated type	The first two digits are significant figures of resistance value and the third one denotes the number of zeros following. Jumper is expressed by R00 Example : 222 → 2.2 kΩ	J ±5 % 0 Jumper	Code	Packaging	Type
	2 0402 Array Convex Terminal	8 8 Terminal				Nil	Embossed Carrier Taping 4 mm pitch, 2,500 pcs.	EXBS8V
	3 0603 Array Concave Terminal	H 16 Terminal				X	Punched Carrier Taping 2 mm pitch, 10,000 pcs.	EXB14V, 18V, 24V, 28V, N8V
	N 0402 Array					V	Punched Carrier Taping 4 mm pitch, 5,000 pcs.	EXB2HV, 34V, 38V, V4V, V8V
	V 0603 Array							
	S 0805 Array							

Construction (Example : Concave Terminal)



Schematics

Isolated type



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■ Dimensions in mm (not to scale)

(1) Convex Terminal type



Type (inch size)	Dimensions (mm)								Mass (Weight) [g/1000 pcs.]
	L	W	T	A1	A2	B	P	G	
EXB14V (0201×2)	0.80 ^{±0.10}	0.60 ^{±0.10}	0.35 ^{±0.10}	0.35 ^{±0.10}	—	0.15 ^{±0.10}	(0.50)	0.15 ^{±0.10}	0.5
EXB24V (0402×2)	1.00 ^{±0.10}	1.00 ^{±0.10}	0.35 ^{±0.10}	0.40 ^{±0.10}	—	0.18 ^{±0.10}	(0.65)	0.25 ^{±0.10}	1.2
EXB28V (0402×4)	2.00 ^{±0.10}	1.00 ^{±0.10}	0.35 ^{±0.10}	0.45 ^{±0.10}	0.35 ^{±0.10}	0.20 ^{±0.10}	(0.50)	0.25 ^{±0.10}	2.0
EXB2HV (0402×8)	3.80 ^{±0.10}	1.60 ^{±0.10}	0.45 ^{±0.10}	0.35 ^{±0.10}	0.35 ^{±0.10}	0.30 ^{±0.10}	(0.50)	0.30 ^{±0.10}	9.0
EXB34V (0603×2)	1.60 ^{±0.20}	1.60 ^{±0.15}	0.50 ^{±0.10}	0.65 ^{±0.15}	—	0.30 ^{±0.20}	(0.80)	0.30 ^{±0.20}	3.5
EXB38V (0603×4)	3.20 ^{±0.20}	1.60 ^{±0.15}	0.50 ^{±0.10}	0.65 ^{±0.15}	0.45 ^{±0.15}	0.30 ^{±0.20}	(0.80)	0.35 ^{±0.20}	7.0

(2) Concave Terminal type

() Reference



Type (inch size)	Dimensions (mm)								Mass (Weight) [g/1000 pcs.]
	L	W	T	A1	A2	B	P	G	
EXBN8V (0402×4)	2.00 ^{±0.10}	1.00 ^{±0.10}	0.45 ^{±0.10}	0.30 ^{±0.10}	0.30 ^{±0.10}	0.20 ^{±0.15}	(0.50)	0.30 ^{±0.15}	3.0
EXBV4V (0603×2)	1.60 ^{+0.20/-0.10}	1.60 ^{+0.20/-0.10}	0.60 ^{±0.10}	0.60 ^{±0.10}	—	0.30 ^{±0.15}	(0.80)	0.45 ^{±0.15}	5.0
EXBV8V (0603×4)	3.20 ^{+0.20/-0.10}	1.60 ^{+0.20/-0.10}	0.60 ^{±0.10}	0.60 ^{±0.10}	0.60 ^{±0.10}	0.30 ^{±0.15}	(0.80)	0.45 ^{±0.15}	10
EXBS8V (0805×4)	5.08 ^{+0.20/-0.10}	2.20 ^{+0.20/-0.10}	0.70 ^{±0.20}	0.80 ^{±0.15}	0.80 ^{±0.15}	0.50 ^{±0.15}	(1.27)	0.55 ^{±0.15}	30

(3) Flat Terminal type

() Reference



Type (inch size)	Dimensions (mm)								Mass (Weight) [g/1000 pcs.]
	L	W	T	A1	A2	B	P	G	
EXB18V (0201×4)	1.40 ^{±0.10}	0.60 ^{±0.10}	0.35 ^{±0.10}	0.20 ^{±0.10}	0.20 ^{±0.10}	0.10 ^{±0.10}	(0.40)	0.20 ^{±0.10}	1.0

() Reference

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■ Ratings

Item		Specifications
Resistance Range		10 Ω to 1 MΩ: E24 series
Resistance Tolerance		J: ±5 %
Number of Terminals	14V,24V,V4V,34V	4 terminal
	18V,28V,N8V,38V,V8V,S8V	8 terminal
	2HV	16 terminal
Number of Resistors	14V,24V,V4V,34V	2 terminal
	18V,28V,N8V,38V,V8V,S8V	4 terminal
	2HV	8 terminal
Power Rating at 70 °C	14V,N8V	0.031 W/element
	18V	0.031 W/element (0.1 W/package)
	24V,28V,V4V,34V,V8V,38V	0.063 W/element
	S8V	0.1 W/element
	2HV	0.063 W/element (0.25 W/package)

Item		Specifications	
Limiting Element Voltage ⁽¹⁾	14V,18V	12.5 V	
	2HV	25 V	
	24V,28V,N8V,38V,34V,V4V,V8V	50 V	
Max. Over-load Voltage ⁽²⁾	S8V	100 V	
	14V,18V	25 V	
	2HV	50 V	
T.C.R.	24V,28V,N8V,38V,34V,V4V,V8V	100 V	
	S8V	200 V	
	±200×10 ⁻⁶ /°C		
Category Temperature Range		-55 °C to 125 °C	
Jumper Array	Rated Current	14V,18V	0.5 A
		2HV,24V,28V,N8V,38V,34V,V4V,V8V	1 A
		S8V	2 A
	Max. Overload Current	14V,18V	1 A
		2HV,24V,28V,N8V,38V,34V,V4V,V8V	2 A
		S8V	4 A

(1) Rated Continuous Working Voltage (RCWV) shall be determined from $RCWV = \sqrt{\text{Power Rating} \times \text{Resistance Value}}$, or Limiting Element Voltage listed above, whichever less.

(2) Overload (Short-time Overload) Test Voltage (SOTV) shall be determined from $SOTV = 2.5 \times \text{Power Rating}$ or max. Overload (Voltage) listed above whichever less.

Power Derating Curve

For resistors operated in ambient temperature above 70 °C, power rating shall be derated in accordance with the figure on the right.

