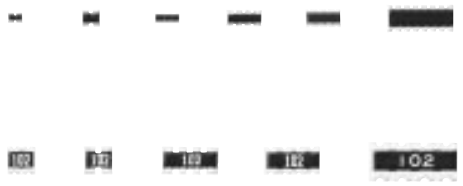
Chip Resistor Array

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)
- 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

■ Packaging Methods Please see Pages 40 to 43
■ Recommended Land Pattern Please see Pages 44 to 45
■ Recommended Soldering Conditions Please see Page 46
■ Safety Precautions Please see Page 47

■ 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

Thick Film Chip Resistor Networks

Chip Resistor Array Type: inch

1	0201 Array	
2	0402 Array	Convex Terminal
3	0603 Array	
N	0402 Array	Concave Terminal
V	0603 Array	
S	0805 Array	

No. of Terminal

4	4 Terminal
8	8 Terminal
H	16 Terminal

Schematics

V	Isolated type

Resistance Value

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

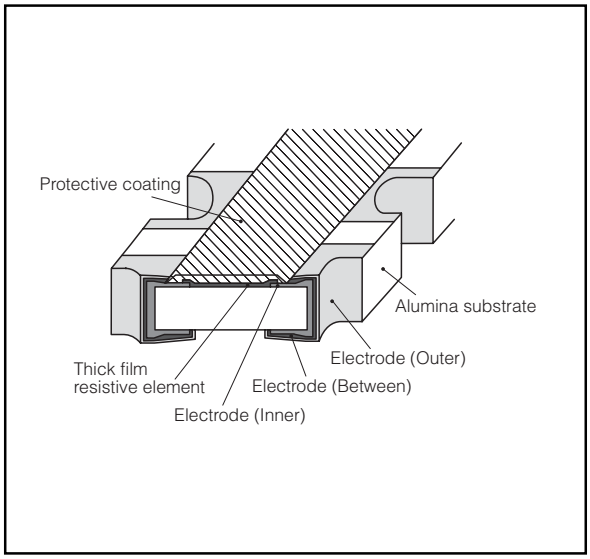
Resistance Tolerance

J	±5 %
0	Jumper

Packaging Methods

Code	Packaging	Type
Nil	Embossed Carrier Taping 4 mm pitch, 2,500 pcs.	EXBS8V
X	Punched Carrier Taping 2 mm pitch, 10,000 pcs.	EXB14V, 18V, 24V, 28V, N8V
V	Punched Carrier Taping 4 mm pitch, 5,000 pcs.	EXB2HV, 34V, 38V, V4V, V8V

■ Construction (Example : Concave Terminal)

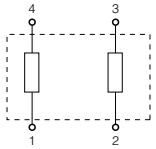


■ Schematics

- Isolated type

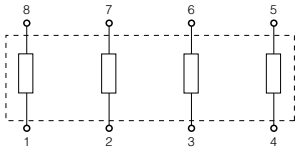
14V, 24V, 34V, V4V

2 resistors



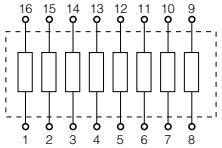
18V, 28V, N8V, 38V, V8V, S8V

4 resistors



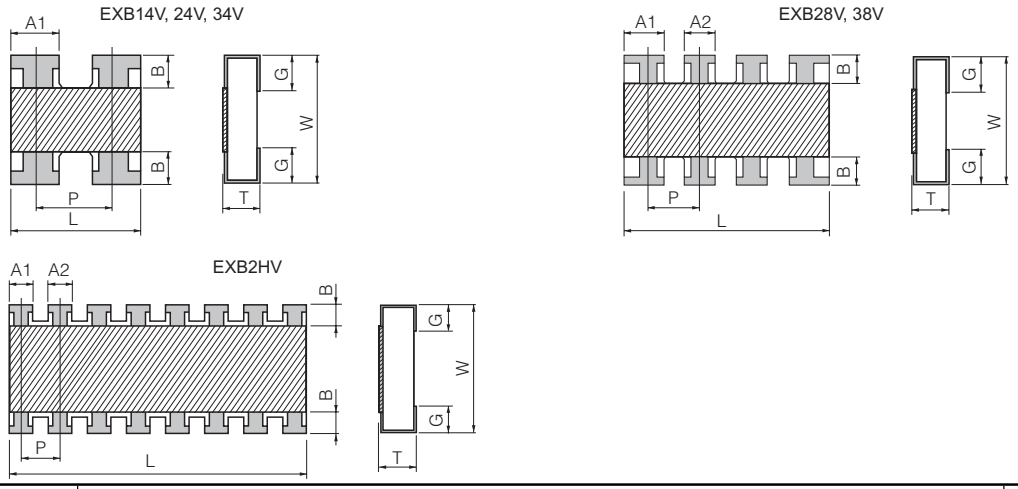
2HV

8 resistors



■ Dimensions in mm (not to scale)

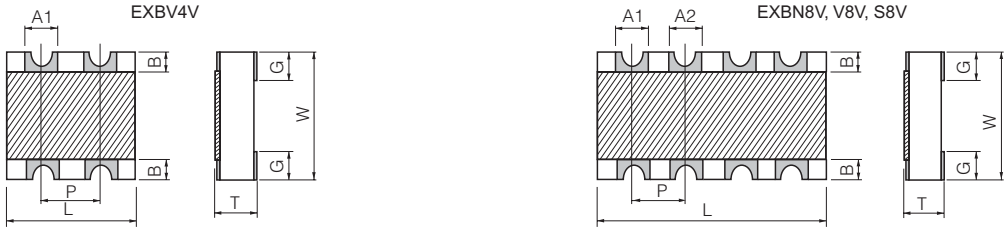
(1) Convex Terminal type



Type (inch size)	Dimensions (mm)								Mass (Weight) [g/1000 pcs.]
	L	W	T	A1	A2	B	P	G	
EXB14V (0201×2)	$0.80^{\pm0.10}$	$0.60^{\pm0.10}$	$0.35^{\pm0.10}$	$0.35^{\pm0.10}$	—	$0.15^{\pm0.10}$	(0.50)	$0.15^{\pm0.10}$	0.5
EXB24V (0402×2)	$1.00^{\pm0.10}$	$1.00^{\pm0.10}$	$0.35^{\pm0.10}$	$0.40^{\pm0.10}$	—	$0.18^{\pm0.10}$	(0.65)	$0.25^{\pm0.10}$	1.2
EXB28V (0402×4)	$2.00^{\pm0.10}$	$1.00^{\pm0.10}$	$0.35^{\pm0.10}$	$0.45^{\pm0.10}$	$0.35^{\pm0.10}$	$0.20^{\pm0.10}$	(0.50)	$0.25^{\pm0.10}$	2.0
EXB2HV (0402×8)	$3.80^{\pm0.10}$	$1.60^{\pm0.10}$	$0.45^{\pm0.10}$	$0.35^{\pm0.10}$	$0.35^{\pm0.10}$	$0.30^{\pm0.10}$	(0.50)	$0.30^{\pm0.10}$	9.0
EXB34V (0603×2)	$1.60^{\pm0.20}$	$1.60^{\pm0.15}$	$0.50^{\pm0.10}$	$0.65^{\pm0.15}$	—	$0.30^{\pm0.20}$	(0.80)	$0.30^{\pm0.20}$	3.5
EXB38V (0603×4)	$3.20^{\pm0.20}$	$1.60^{\pm0.15}$	$0.50^{\pm0.10}$	$0.65^{\pm0.15}$	$0.45^{\pm0.15}$	$0.30^{\pm0.20}$	(0.80)	$0.35^{\pm0.20}$	7.0

( ) Reference

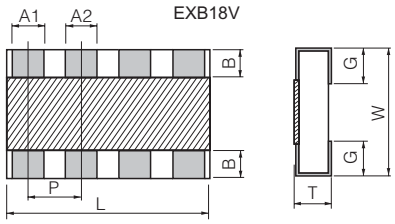
(2) Concave Terminal type



Type (inch size)	Dimensions (mm)								Mass (Weight) [g/1000 pcs.]
	L	W	T	A1	A2	B	P	G	
EXBN8V (0402×4)	$2.00^{\pm0.10}$	$1.00^{\pm0.10}$	$0.45^{\pm0.10}$	$0.30^{\pm0.10}$	$0.30^{\pm0.10}$	$0.20^{\pm0.15}$	(0.50)	$0.30^{\pm0.15}$	3.0
EXBV4V (0603×2)	$1.60^{+0.20}_{-0.10}$	$1.60^{+0.20}_{-0.10}$	$0.60^{\pm0.10}$	$0.60^{\pm0.10}$	—	$0.30^{\pm0.15}$	(0.80)	$0.45^{\pm0.15}$	5.0
EXBV8V (0603×4)	$3.20^{+0.20}_{-0.10}$	$1.60^{+0.20}_{-0.10}$	$0.60^{\pm0.10}$	$0.60^{\pm0.10}$	$0.60^{\pm0.10}$	$0.30^{\pm0.15}$	(0.80)	$0.45^{\pm0.15}$	10
EXBS8V (0805×4)	$5.08^{+0.20}_{-0.10}$	$2.20^{+0.20}_{-0.10}$	$0.70^{\pm0.20}$	$0.80^{\pm0.15}$	$0.80^{\pm0.15}$	$0.50^{\pm0.15}$	(1.27)	$0.55^{\pm0.15}$	30

( ) Reference

(3) Flat Terminal type



Type (inch size)	Dimensions (mm)								Mass (Weight) [g/1000 pcs.]
	L	W	T	A1	A2	B	P	G	
EXB18V (0201×4)	$1.40^{\pm0.10}$	$0.60^{\pm0.10}$	$0.35^{\pm0.10}$	$0.20^{\pm0.10}$	$0.20^{\pm0.10}$	$0.10^{\pm0.10}$	(0.40)	$0.20^{\pm0.10}$	1.0

( ) Reference

00 Sep. 2010

■ 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
	S8V	100 V
Max. Over-load Voltage [2]	14V,18V	25 V
	2HV	50 V
	24V,28V,N8V,38V,34V,V4V,V8V	100 V
	S8V	200 V
T.C.R.		±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
Jumper Array 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 × 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.