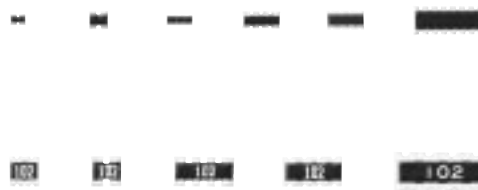


### Chip Resistor Array

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



#### ■ Features

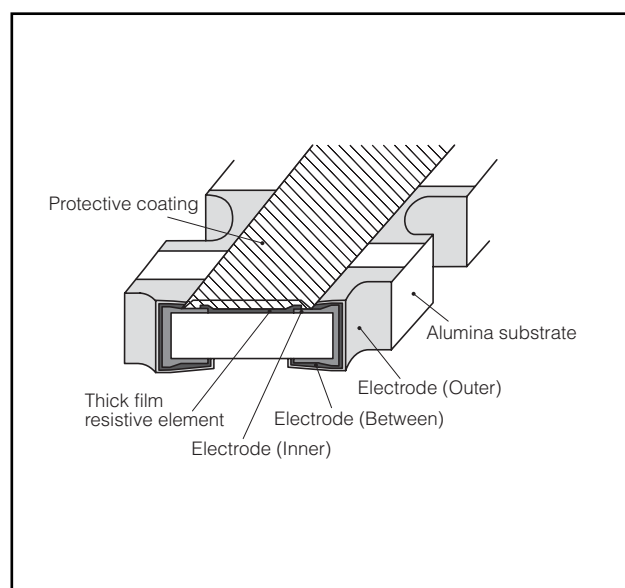
- High density
  - 2 resistors in 0.8 mm × 0.6 mm size (EXB14V)
  - 4 resistors in 1.4 mm × 0.6 mm size (EXB18V)
  - 2 resistors in 1.0 mm × 1.0 mm size (EXB24V)
  - 4 resistors in 2.0 mm × 1.0 mm size (EXB28V, N8V)
  - 8 resistors in 3.8 mm × 1.6 mm size (EXB2HV)
  - 2 resistors in 1.6 mm × 1.6 mm size (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

#### ■ Explanation of Part Numbers

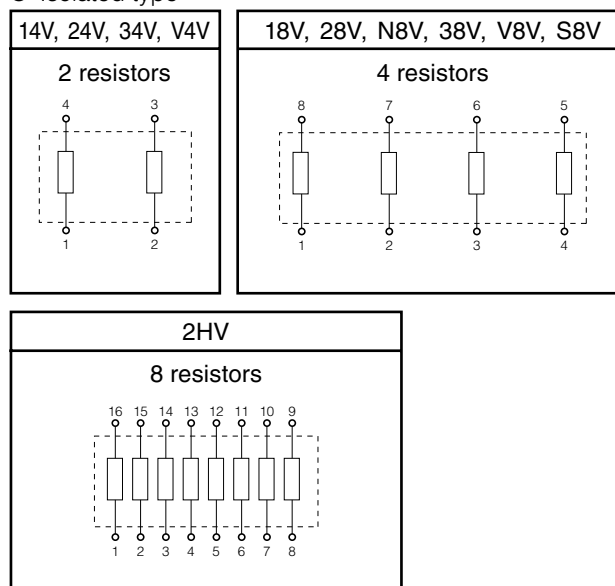
| 1                                 | 2                              | 3 | 4             | 5               | 6               | 7                                                                                                                                                                              | 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 |                                |   |               | 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<br>Example : 222 → 2.2 kΩ |   | J ±5 %               | Code              | Packaging                                         |
|                                   | 1 0201 Array                   |   | 8 8 Terminal  |                 |                 |                                                                                                                                                                                |   | 0 Jumper             | Nil               | Embossed Carrier Taping<br>4 mm pitch, 2,500 pcs. |
|                                   | 2 0402 Array Convex Terminal   |   | H 16 Terminal |                 |                 |                                                                                                                                                                                |   |                      | X                 | Punched Carrier Taping<br>2 mm pitch, 10,000 pcs. |
|                                   | 3 0603 Array Convex Terminal   |   |               |                 |                 |                                                                                                                                                                                |   |                      | V                 | Punched Carrier Taping<br>4 mm pitch, 5,000 pcs.  |
|                                   | N 0402 Array Concave Terminal  |   |               |                 |                 |                                                                                                                                                                                |   |                      |                   |                                                   |
|                                   | V 0603 Array Concave Terminal  |   |               |                 |                 |                                                                                                                                                                                |   |                      |                   |                                                   |
|                                   | S 0805 Array                   |   |               |                 |                 |                                                                                                                                                                                |   |                      |                   |                                                   |

#### ■ Construction (Example : Concave Terminal)



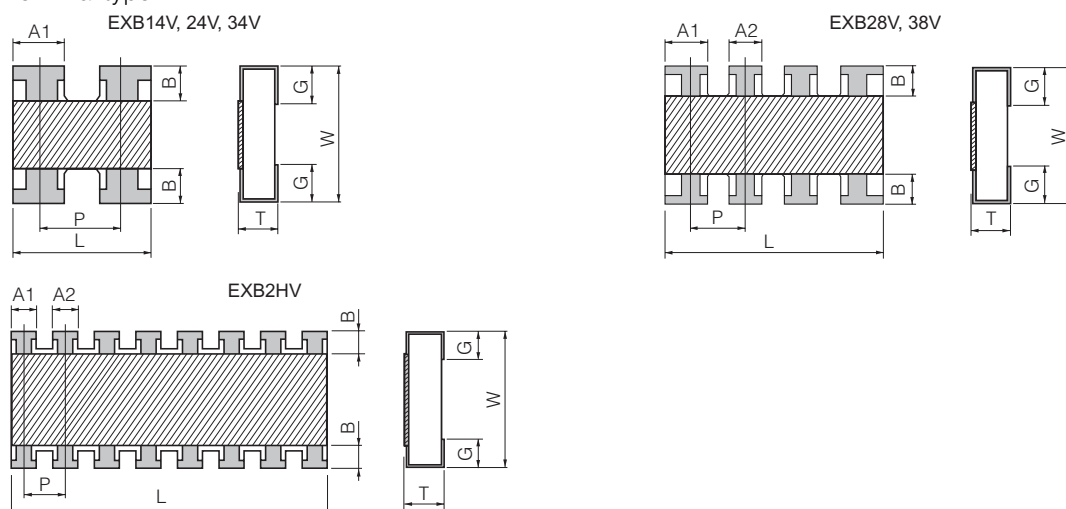
#### ■ Schematics

- Isolated type



## ■ Dimensions in mm (not to scale)

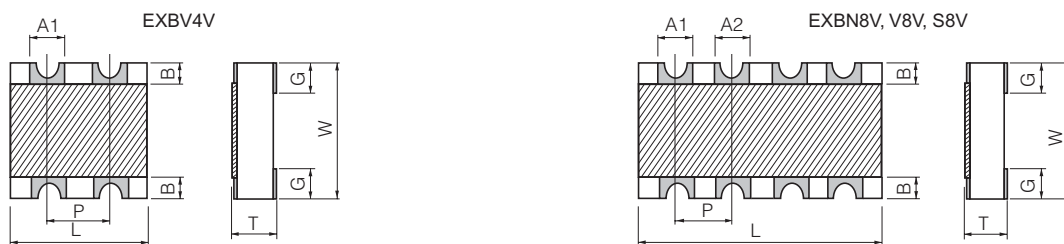
### (1) Convex Terminal type



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

### (2) Concave Terminal type

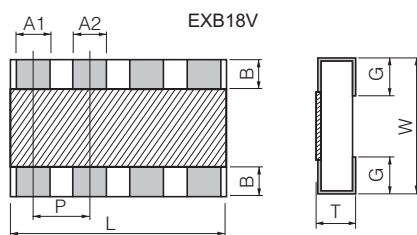
( ) Reference



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

### (3) Flat Terminal type

( ) Reference



| Type<br>(inch size) | Dimensions (mm) |                 |                 |                 |                 |                 |        |                 | Mass (Weight)<br>[g/1000 pcs.] |
|---------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------|-----------------|--------------------------------|
|                     | L               | W               | T               | A1              | A2              | B               | P      | G               |                                |
| EXB18V (0201×4)     | 1.40 $\pm$ 0.10 | 0.60 $\pm$ 0.10 | 0.35 $\pm$ 0.10 | 0.20 $\pm$ 0.10 | 0.20 $\pm$ 0.10 | 0.10 $\pm$ 0.10 | (0.40) | 0.20 $\pm$ 0.10 | 1.0                            |

( ) Reference

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use.  
Should a safety concern arise regarding this product, please be sure to contact us immediately.

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<br>(0.1 W/package)  |
|                       | 24V,28V,V4V,34V,V8V,38V | 0.063 W/element                     |
|                       | S8V                     | 0.1 W/element                       |
|                       | 2HV                     | 0.063 W/element<br>(0.25 W/package) |

| Item                                    |                             | Specifications                  |       |
|-----------------------------------------|-----------------------------|---------------------------------|-------|
| Limiting Element Voltage <sup>(1)</sup> | 14V,18V                     | 12.5 V                          |       |
|                                         | 2HV                         | 25 V                            |       |
|                                         | 24V,28V,N8V,38V,34V,V4V,V8V | 50 V                            |       |
|                                         | S8V                         | 100 V                           |       |
| Max. Over-load Voltage <sup>(2)</sup>   | 14V,18V                     | 25 V                            |       |
|                                         | 2HV                         | 50 V                            |       |
|                                         | 24V,28V,N8V,38V,34V,V4V,V8V | 100 V                           |       |
|                                         | S8V                         | 200 V                           |       |
| T.C.R.                                  |                             | ±200×10 <sup>-6</sup> /°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.

