

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

Please see Page 46

■ Safety Precautions

Please see Page 47

● 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



■ Construction (Example : Concave Terminal)



■ Schematics

● Isolated type



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.

■ 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

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 (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.

