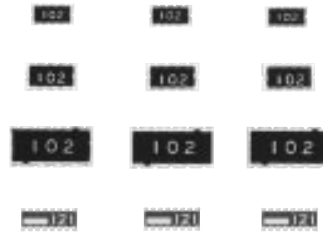


## Chip Resistor Networks

Type: **EXBD:1206**  
**EXBE:1608**  
**EXBA:2512**  
**EXBQ:1506**

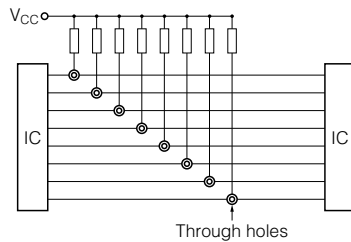


### ■ Features

- High density placing for digital signal circuits
  - Bussed 8 or 15 resistors for pull up/down circuits
    - EXBD: 3.2 mm × 1.6 mm × 0.55 mm, 0.635 mm pitch
    - EXBE: 4.0 mm × 2.1 mm × 0.55 mm, 0.8 mm pitch
    - EXBA: 6.4 mm × 3.1 mm × 0.55 mm, 1.27 mm pitch
    - EXBQ: 3.8 mm × 1.6 mm × 0.45 mm, 0.5 mm pitch
  - Available direct placing on the bus line by means of half pitch spacing without through-holes on PWB ("High density placing" is shown below)
- High speed mounting using conventional placing machine
- Reference Standard...IEC 60115-9, JIS C 5201-9, EIAJ RC-2130

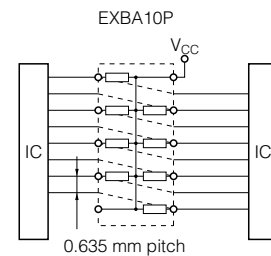
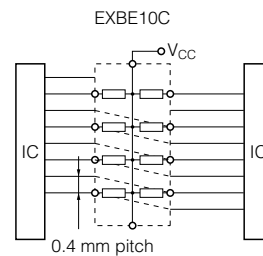
### <High density placing>

Pull up resistors



No through hole

Direct placement on the bus line



### ■ Packaging Methods

Please see Pages 40 to 43

### ■ Recommended Land Pattern

Please see Pages 44 to 45

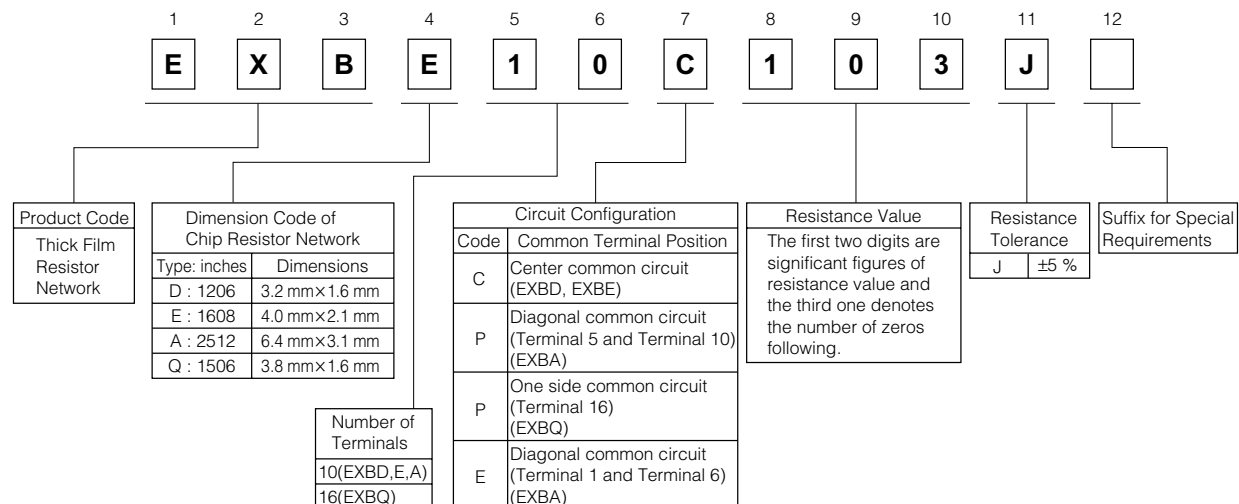
### ■ Recommended Soldering Conditions

Please see Page 46

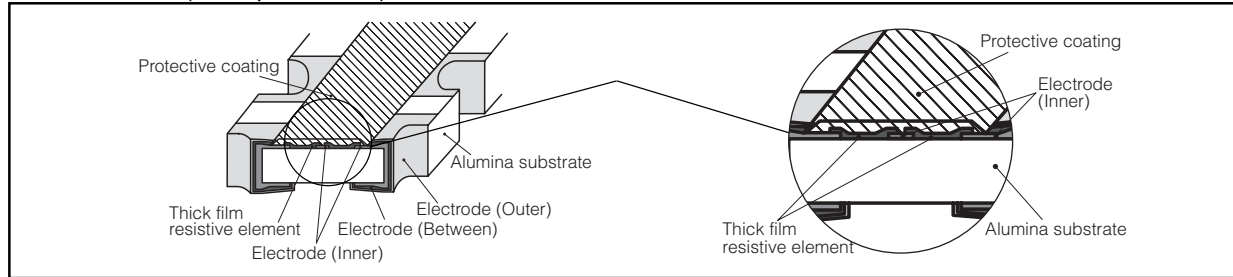
### ■ Safety Precautions

Please see Page 47

### ■ Explanation of Part Numbers



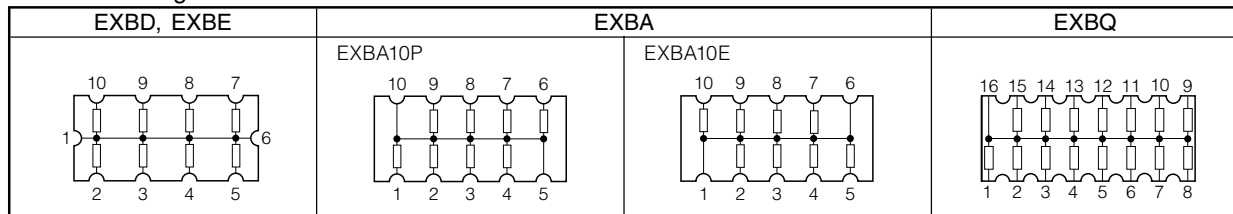
■ Construction (Example : EXBD)



■ Dimensions in mm (not to scale)

EXBD	EXBE	EXBA	EXBQ
<p>Mass (Weight)[1000 pcs.] : 10 g</p>	<p>Mass (Weight)[1000 pcs.] : 16 g</p>	<p>Mass (Weight)[1000 pcs.] : 40 g</p>	<p>Mass (Weight)[1000 pcs.] : 9 g</p>

■ Circuit Configuration



■ Ratings

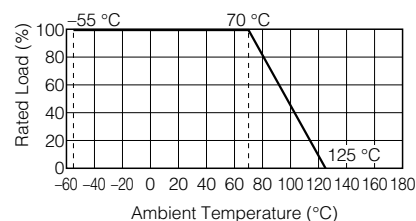
Item	Specifications			
Series	EXBD	EXBE	EXBA	EXBQ
Resistance Range	47 $\Omega$ to 1 M $\Omega$ (E12)			100 $\Omega$ to 470 k $\Omega$ (E6 series)
Resistance Tolerance	$\pm 5\%$			
Number of Terminals	10 terminals			16 terminals
Number of Resistors	8 element			15 element
Power Rating at 70 $^{\circ}\text{C}$	0.05 W/element	0.063 W/element		0.025 W/element
Limiting Element Voltage <sup>(1)</sup>	25V		50 V	25V
Maximum Overload Voltage <sup>(2)</sup>	50 V		100 V	50 V
T. C. R.	$\pm 200 \times 10^{-6} / ^{\circ}\text{C}$			
Category Temperature Range	$-55^{\circ}\text{C}$ to $+125^{\circ}\text{C}$			

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

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

Power Derating Curve

For resistors operated in ambient temperature above 70  $^{\circ}\text{C}$ , power rating shall be derated in accordance with the figure on the right.



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