

*Using breakthrough technology,  
we aim for products that will create new markets.*

## New Product News

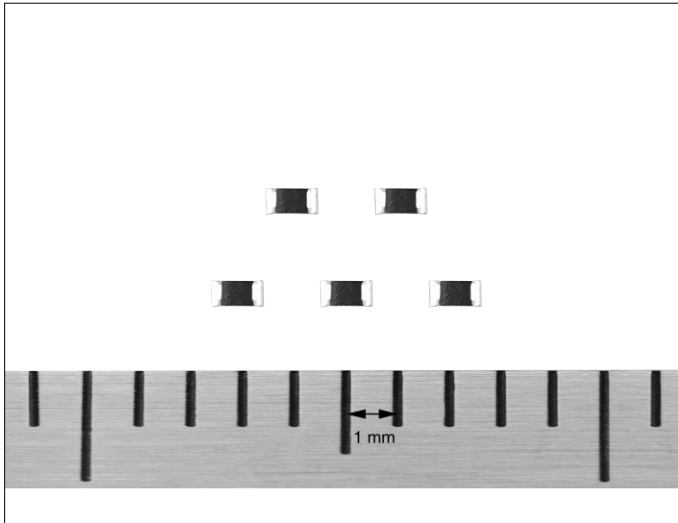
Expansion of products line-up (Current size: 1608(0603) to 6432(2512))

### Thick Film Chip Resistor

#### 1005(0402) Thick-Film Chip Resistor (Low Resistance Type)

Industry/Field: Mobile communication, AV, OA/Information,  
Automotive electronics, Home appliances, Optical equipment

## Low resistance and High power as well as compact size (1005(0402) size)



#### • Development Target:

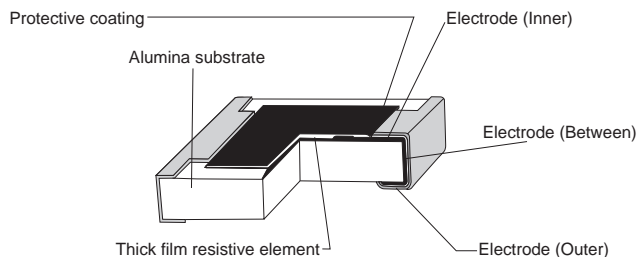
We today mass-produce the Chip Resistors (Low Resistance Type) with 1608 (0603) size to 6432 (2512) size used for sensing current. To meet the market needs, we have developed the Chip Resistor (Low Resistance Type) with 1005 (0402) size featuring high power as well as more compact size, newly adding it to the current models to expand the product range.

#### • Features:

- ① Up to resistance value of 100 mΩ with 1005(0402) size
- ② High Power rating : 0.125 W with 1005(0402) size
- ③ TCR :  $\pm 300 \times 10^{-6}/^{\circ}\text{C}$  with 1005 (0402) size (100 mΩ)

• Number of industrial property rights: 1

#### • Construction:



#### • Characteristics/specifications:

| Series   | ERJ2B series  |
|--|---|
| Dimension  | L 1.0mm × W 0.5mm × t 0.35mm  |
| Resistance Range   | 100mΩ to 1.0Ω   |
| Resistance Tolerance                                     | ±1%(220mΩ min.), ±2%, ±5%   |
| Power Rating   | 0.125W  |
| Temperature Coefficient of Resistor (T.C.R.)             | $\pm 300 \times 10^{-6}/^{\circ}\text{C}$ (100mΩ to 200mΩ)<br>$\pm 250 \times 10^{-6}/^{\circ}\text{C}$ (220mΩ to 1Ω) |
| Category Temperature Range (Operating Temperature Range) | -55°C to +125°C   |

#### • Applications/usage examples:

- Current-sensors of power supply circuits of compact mobile devices (cellular phones and others)

#### • Explanation of part numbers:

| 1  | 2                                     | 3   | 4                               | 5  | 6 | 7 | 8 | 9 | 10 | 11 |
|--|---------------------------------------|---|---------------------------------|--|---|---|---|---|----|----|
| E  | R                                     | J   | 2                               | B  | S | G | 1 | 0 | 2  | U  |
| Thick film chip resistor   | 1005(0402) size, Power rating: 0.125W | Resistance tolerance: F : ±1%<br>G : ±2%<br>J : ±5% | Resistance value: Ex.) R10→0.1Ω | Packaging method: Punched carrier taping |   |   |   |   |    |    |
| Resistance value segment:<br>S : 0.1Ω to 0.2Ω<br>Q : 0.22Ω to 1.0Ω |                                       |   |                                 |  |   |   |   |   |    |    |