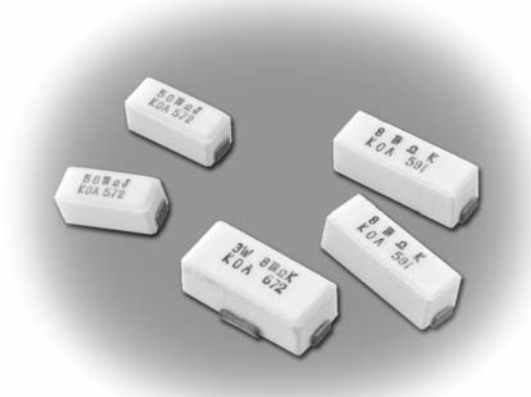


## ceramic case surface mount resistor

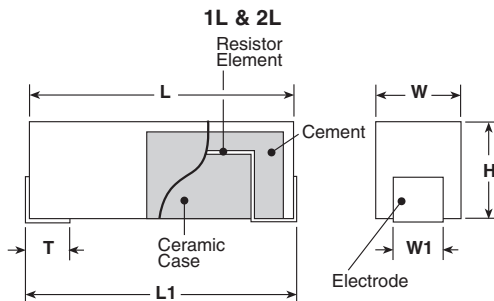


## features

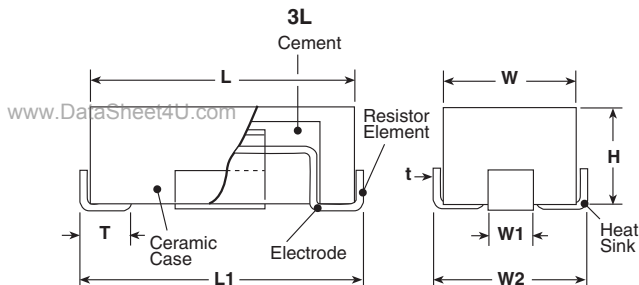
- Suitable to detect large current due to ultra low resistances
- Flame retardant resistor in a ceramic case
- All custom-made products
- Automatic mounting is available
- Products with lead-free terminations meet EU RoHS and China RoHS requirements



## dimensions and construction



| Size Code | Dimensions inches (mm) |                         |                        |               |                        |                         |               |                        |
|-----------|------------------------|-------------------------|------------------------|---------------|------------------------|-------------------------|---------------|------------------------|
|           | L                      | L1                      | W                      | W2            | H                      | W1                      | t             | T                      |
| 1L        | .512±.019<br>(13±0.5)  | .551±.039<br>(14±1.0)   | .217±.019<br>(5.5±0.5) | —             | .205±.019<br>(5.2±0.5) | —                       | —             | .098±.039<br>(2.5±1.0) |
| 2L        | .709±.019<br>(18±0.5)  | .748±.039<br>(19±1.0)   | .248±.019<br>(6.3±0.5) | —             | .236±.006<br>(6.0±0.5) | .118±.012<br>(3.0±0.03) | —             | .118±.039<br>(3.0±1.0) |
| 3L        | —                      | .760±.039<br>(19.3±1.0) | .323±.019<br>(8.2±0.5) | .362<br>(9.2) | —                      | —                       | .012<br>(0.3) | —                      |



## ordering information

| New Part #           | BLR | 1L                          | N                       | TE  | 50L      | J                 |
|----------------------|-----|-----------------------------|-------------------------|---|----------|-------------------|
| Type                 |     |                             |                         |   |          |                   |
| Power Rating         |     | 1L: 1W<br>2L: 2W<br>3L: 15W |                         |   |          |                   |
| Termination Material |     |                             | N: No surface treatment |   |          |                   |
| Packaging            |     |                             |                         | TE: embossed plastic<br>1, 2: 1,000 pieces/reel<br>3: 750 pieces/reel |          |                   |
| Nominal Resistance   |     |                             |                         |   | 3 digits |                   |
| Resistance Tolerance |     |                             |                         |   |          | J: ±5%<br>K: ±10% |

## applications and ratings

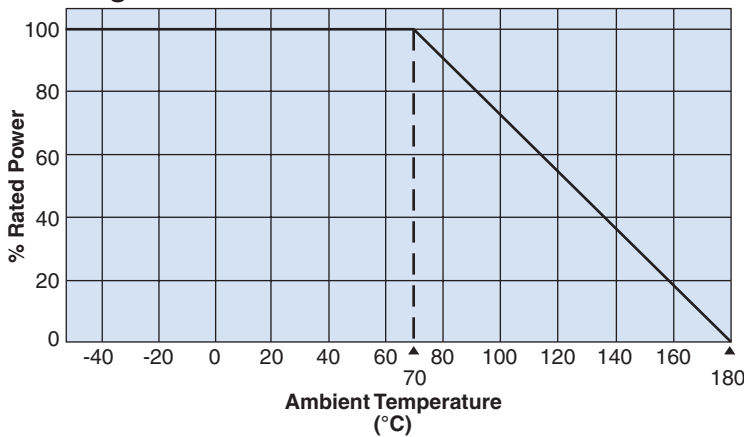
| Part Designation | Power Rating | T.C.R. (ppm/°C) Max. | Resistance Range* | Resistance Tolerance | Rated Ambient Temperature | Operating Temperature Range |
|------------------|--------------|----------------------|-------------------|----------------------|---------------------------|-----------------------------|
| BLR1L            | 1W           | ±100                 | 8mΩ - 50mΩ        | J: ±5%<br>K: ±10%    | +70°C                     | -40°C to +180°C             |
| BLR2L            | 2W           |                      | 8mΩ - 50mΩ        |                      |                           |                             |
| BLR3L            | 15W**        |                      | 8mΩ - 50mΩ        |                      |                           |                             |

\* Please consult with us in advance about resistance value for custom-made products

\*\* It is assumed to be used on aluminum circuit board

## environmental applications

### Derating Curve



## Performance Characteristics

| Parameter           | Requirement $\Delta R$     |         | Test Method  |
|---------------------|----------------------------|---------|--|
|                     | Limit                      | Typical |  |
| Resistance          | Within specified tolerance | —       | 25°C   |
| T.C.R.              | Within specified value     | —       | Room temp. +100°C UP   |
| Cold Resistance     | ±5.0%                      | ±2.0%   | -55°C, 1000 hours  |
| Heat Resistance     | ±5.0%                      | ±2.0%   | +125°C, 1000 hours   |
| Moisture Resistance | ±5.0%                      | ±2.0%   | 40°C ± 2°C, Power rating x 1/10, 90% - 95% RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle |
| Long Life           | ±5.0%                      | ±2.0%   | 70°C ± 2°C, 1000 hours 1.5 hr ON, 0.5 hr OFF cycle                                     |