Coating color: Black

- Small size and light weight.
- Excellent heat resistance and weather resistance are ensured by the use of metal glaze thick film.
- High stability and high reliability with the three-layer structure of electrode.
- Applicable to various kinds of automatic mounters for taping, etc.
- Suitable for both flow and reflow solderings.
- Products with lead free termination meet EU-RoHS requirements. EU-RoHS regulation is not intended for Pb-glass contained in electrode, resistor element and glass.
- AEC-Q200 qualified (Exemption 1F).

If any questions arise whether to use the “Rated Ambient Temperature” or the “Rated Terminal Part Temperature” in your usage conditions, please give priority to the “Rated Terminal Part Temperature”.

※4  If you use at the rated power, please keep the condition that the terminal of the resistor is below the rated terminal part temperature. Please refer to the derating curves based on the terminal temperature of right side on the next page.

For flat chip jumper resistor, please refer to RK73Z series.

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For flat chip jumper resistor, please refer to RK73Z series.

For further information on taping, please refer to APPENDIX C on the back pages.

The terminal surface material lead free is standard.

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- High stability and high reliability with the three-layer structure of electrode.
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### Derating Curve

For resistors operated at an ambient temperature of 70℃ or higher, the power shall be derated in accordance with the above derating curve.

When the terminal part temperature of the resistor exceeds the rated terminal part temperature shown above, the power shall be derated according to the derating curve.

### Temperature Rise

Regarding the temperature rise, the value of the temperature varies per conditions and board for use since the temperature is measured under our measuring conditions.

### One-Pulse Limiting Electric Power

The maximum applicable voltage is equal to the max. overload voltage. Please ask us about the resistance characteristic of continuous applied pulse. The pulse endurance values are not assured values, so be sure to check the products on actual equipment when you use them.

### Performance

<table>
<thead>
<tr>
<th>Test Items</th>
<th>Performance Requirements ΔR± (%±0.1Ω)</th>
<th>Test Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistance</td>
<td>Within specified tolerance</td>
<td>25℃</td>
</tr>
<tr>
<td>T.C.R.</td>
<td>Within specified T.C.R.</td>
<td>+25℃/+−55℃ and +25℃/+125℃</td>
</tr>
<tr>
<td>Overload (Short time)</td>
<td>2</td>
<td>Rated voltage×2 for 5s (E, 2B, W3A2: Rated voltage×2 for 5s)</td>
</tr>
<tr>
<td>Resistance to soldering heat</td>
<td>1: 1F, 2A-W3A2 [100Ω&lt;R&lt;1MΩ]</td>
<td>260℃±5℃, 10s±1s</td>
</tr>
<tr>
<td></td>
<td>3: 1F-W3A2 [R&lt;100Ω, R&gt;1MΩ]</td>
<td></td>
</tr>
<tr>
<td>Rapid change of temperature</td>
<td>1: 1F, 0.5: others</td>
<td>−55℃ (30min.)/+125℃ (30min.) 100 cycles</td>
</tr>
<tr>
<td></td>
<td>0.5: 1F, 0.3: others</td>
<td></td>
</tr>
<tr>
<td>Moisture resistance</td>
<td>2: 1J, 2A, 2B</td>
<td>40℃±2℃, 90%−95%RH, 1000h</td>
</tr>
<tr>
<td></td>
<td>3: 1J, 2A, 2B</td>
<td>1.5h ON/0.5h OFF cycle</td>
</tr>
<tr>
<td>Endurance at 70℃ or rated</td>
<td>2: 1J, 2A, 2B</td>
<td>70℃±2℃ or rated terminal part temperature ±2℃ 1000h</td>
</tr>
<tr>
<td></td>
<td>3: 1J, 2A, 2B</td>
<td>1.5h ON/0.5h OFF cycle</td>
</tr>
<tr>
<td>High temperature exposure</td>
<td>1</td>
<td>+125℃, 1000h: 1F</td>
</tr>
<tr>
<td></td>
<td>0.5: 1F, 0.3: others</td>
<td>+155℃, 1000h: 1H, 1E, 1J, 2A, 2B, 2E, W2H, W3A, W3A2</td>
</tr>
</tbody>
</table>

### Precautions for Use

- The substrate of chip resistors is alumina. Cracks may occur at the connection of solder (solder fillet portion) due to the difference of the coefficient of thermal expansion from a mounting board when heat stress like heat cycle, etc. are repeatedly given to them. Care should be taken to the occurrence of the cracks when the change in ambient temperature or ON/OFF of load is repeated, especially when large types of W2H/W3A/W3A2 which have large thermal expansion and also self heating. By general temperature cycle test using glass-epoxy (FR-4) boards under the maximum/minimum temperatures of operating temperature range, the crack does not occur easily in the types of 1F〜2E, but the crack tends to occur in the types of W2H/W3A/W3A2. The occurrence of the crack by heat stress may be influenced by the size of a pad, solder volume, heat radiation of mounting board etc., so please pay careful attention to designing when a big change in ambient temperature and conditions for use like ON/OFF of load can be assumed.
- Care should be taken that RK73BF may be damaged when static electricity occurs and is applied in the equipment assembly process.

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use. Contact our sales representatives before you use our products for applications including automobiles, medical equipment and aerospace equipment.

Malfunction or failure of the products in such applications may cause loss of human life or serious damage.