# Wirewound Flat Stackable Power Resistors

# SPECIFICATION

| | |
|---|---|
| Supplier: | BEC DISTRIBUTION LIMITED |
| Part No.: | 9191000TK RESISTOR 140W 2R5J v2 |
| Part Name: | Flat Stackable Power Resistors |
| Ordering Ref.: | 1000BC140W2R5J v2 |

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# Product Introduction

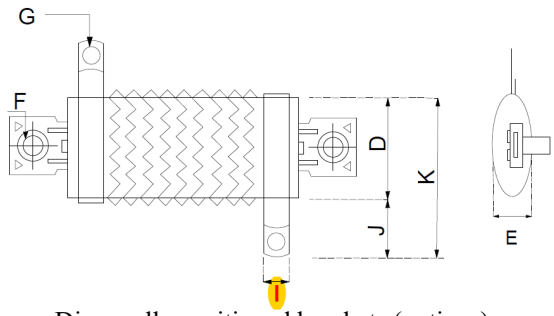
**Features :**

- ZR resistor is a flat tubular ceramic rod has two terminals and is wirewound with either copper wire or chromium alloy wire as a resistance element.

**Applications :**

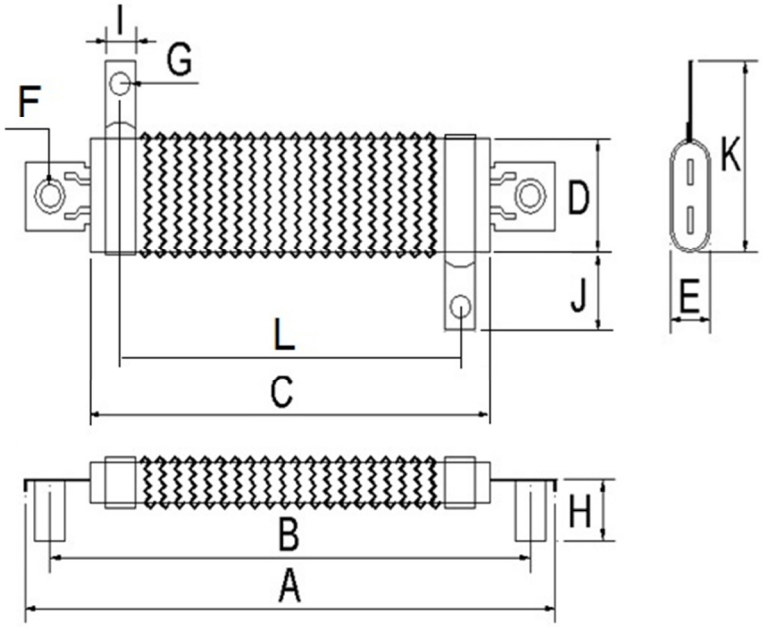
- Mainly utilized for industrial installations where height is limited. Features excellent windings, taps adding, low impedance, and PC board insertable.

The oval-shaped ceramic-core resistors feature a low profile to permit installation in spaces with height restrictions.
They are also equipped with integral mounting brackets so they can be fastened to a chassis and stacked in locations with limited surface area. When properly fastened, the mounting brackets add a heat sinking benefit resulting in a smaller size per watt.
Durable ZR flat resistors are fully welded and coated with lead free non-flammable resin.
ZR resistors are suitable for educational modeling applications, load testing, industrial machinery, electric power distribution, instruments, automation control installations, etc.



Diagonally positioned brackets (options)

# Construction & Dimensions




| Type | Resistance Value | Dimensions (Unit: mm) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A±3 | B±3 | C±3 | D±1.5 | E±1 | F±0.5 | G±0.5 | H±1 | I±1 | J±1 | K±1 | L±3 |
| Diagonal T | 2.5Ω | 183 | 170 | 150 | 33 | 16 | 5.2 | 4.1 | 13 | 6.5 | 12 | 42 | 120.5 |

Remark: The pitch “L” of the 2 terminal is 120.5±3 mm (Reference)

# Electrical Characteristics

| Test Item | Test Methods | Characteristics |
|---|---|---|
| Resistance Tolerance | JIS-C-5202 5-1 | Resistance Nominal Tolerance J (±5%) |
| Temperature Coefficient | JIS-C-5202 5-2 | ±350ppm/°C Max. |
| Load Rating | JIS-C-5202 5-4 | ΔR/R≤ ±(0.5%+0.1Ω) Surface temp. up 350°C Max. |
| Short-Term Overload | JIS-C-5202 5-5<br>500% rated power 5 seconds | Free of appearance or structural irregularity<br>ΔR/R≤ ±(2%+0.1Ω) |
| Insulation Resistance | JIS-C-5202 5-6 500VDC | 100MΩ Min. |
| Dielectric Withstanding Voltage | JIS-C-5202 5-7<br>1000VDC 1 minute between terminal and anchor stand. | Free of appearance or structural irregularity<br>ΔR/R≤ ±(0.1%+0.05Ω) |
| Terminal Strength | JIS-C-5202 6-1 8Kg 30 seconds | Free of appearance or structural irregularity |
| Vibration | JIS-C-5202 6-3<br>1.5m/m 10 ~50 ~10 Hz/min X-Y-Z 2 hours each | Free of appearance or structural irregularity surface coating crack ΔR/R≤ ±(1%+0.05Ω) |
| Thermal Shock | JIS-C-5202 7-3<br>Room temp 30 minutes ON~55°C 15 minutes OFF | Free of structural irregularity ΔR/R≤ ±(2%+0.1Ω) |
| Humidity | JIS-C-5202 7-5<br>40°C 90%RH 240 hours | Free of appearance or structural irregularity surface coating crack ΔR/R≤ ±(3%+0.1Ω) |
| Load Life | JIS-C-5202 7-10<br>90 minutes ON - 30 minutes OFF 500 hours | Free of appearance or structural irregularity surface coating crack ΔR/R≤ ±(5%+0.1Ω) |
| Flame Retardation | JIS-C-5202 7-13-3-2<br>100% ~600% rated power load | US UL-94 flame retardation test V-0 grade noncombustible |
| Remarks | Resistance and resistance tolerance were tested in-house with micro resistance meter.<br>Resistor coating refers to UL-certified data provided by supplier | |

# Derating Curve