Resistors

Wire Bondable Multi-tap Chip Resistors

WBC Series

- High resistor density
- MIL inspection available
- Multi-tapped chip resistor





All parts are Pb-free and comply with EU Directive 2011/65/EU amended by (EU) 2015/863 (RoHS3)

Physical Data





Electrical Data

| Absolute Tole | rance | to ±5% | |
|---|----------|---|--|
| Absolute TCR | | to ±25ppm/°C | |
| Package Power Rating (@ 70°C) | | 250mW | |
| Rated Operating Voltage (not to exceed $\sqrt{P x R}$) | | 100V | |
| Operating Temperature | | -55°C to +150°C | |
| Noise | | <-30dB | |
| Substrate Material | | Oxidized Silicon (10KÅ SiO ₂ minimum) | |
| Substrate Thickness | | 0.010 [~] ±0.001 (0.254mm ±0.025) | |
| Bond Pad | Aluminum | 10KÅ minimum | |
| Metallization | Gold | 15KÅ minimum | |
| Backside | | Silicon (gold available) | |
| Passivation | | Silicon Dioxide or Silicon Nitride | |

General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

www.ttelectronics.com/resistors

WBC Series



Power Derating Data



TCR/Inspection Code Table

| Absolute TCR | Commercial Code | MIL Inspection Code* |
|--------------|--------------------|-------------------------|
| ±300ppm/°C | 00 | 04 |
| ±100ppm/°C | 01 | 05 |
| ±50ppm/°C | 02 | 06 |
| ±25ppm/°C | 03 | 07 |

*Notes: Product supplied to Class H of MIL-PRF 38534 include 100% visual inspection

Environmental Data

| Test | Method | Max ∆R | Typical ∆R |
|------------------------------|---|--------|------------|
| Thermal Shock | MIL-STD-202 Method 107 Test condition F | ±0.1% | ±0.02% |
| High Temperature Exposure | MIL-STD-883 Method 1008 150°C, 1000 hours | ±0.1% | ±0.05% |
| Low Temperature Storage | -55°C, 1000 hours | ±0.03% | ±0.01% |
| Life | MIL-STD-202 Method 108 70°C, 1000 hours | ±0.5% | ±0.01% |
| Life at Elevated Temperature | MIL-STD-202 Method 108 125°C, 1000 hours | ±0.5% | ±0.05% |

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Manufacturing Capabilities Data

| Resistance R Total | Available Absolute Tolerances | Best Absolute TCR |
|-----------------------|-------------------------------|-------------------|
| 100Ω | МК | ±100ppm/°C |
| 400Ω | MKJ | ±100ppm/°C |
| 800Ω | MKJ | ±100ppm/°C |
| 2.4ΚΩ | MKJ | ±50ppm/°C |
| 8.0KΩ | MKJ | ±50ppm/°C |
| 24ΚΩ | MKJ | ±25ppm/°C |
| 80K Ω | MKJ | ±25ppm/°C |

Ordering Data

| Prefix WBC - M0303 A S - 01 - 2402 - | J |
|---|---|
| Style | |
| MU3U3 | |
| Bonding pads · · · · · · · · · · · · · · · · · · · | : |
| A = Aluminum; G = Gold | • |
| Backside G = Gold; S = Silicon | • |
| TCB/Inspection Code | : |
| Reference TCR/Inspection Code Table | |
| Total Resistance = R. | : |
| 4-Digit Resistance Code Ex: $8000 = 800\Omega$; $2402 = 24.0K\Omega$ Reference manufacturing Capabilities Data Table for available resistances | • |
| Absolute Tolerance Code | |

 $M = \pm 20\%$; $K = \pm 10\%$; $J = \pm 5\%$

Packaging Standard packaging is 2" x 2" chip tray. For additional information or to discuss your specific requirements, please contact our Applications Team using the contact details below.

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