

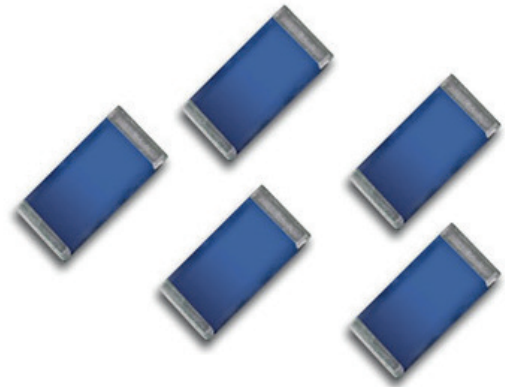
Precision Military and Space Qualified Chip Resistors



MIL-CHIP Series

Features

- Now qualified to MIL-PRF-55342 Space Level T
- Four industry standard sizes available
- MIL-PRF-55342 Characteristics E, H, K, and M
- MIL-PRF-55342 extended reliability levels C, M, P, R, S and T



MIL-PRF-55342 Qualified Product Listing (QPL)

| Style Size | Technology | MIL-PRF-55342 Characteristic | Tolerance | Resistance Range (Ω) | Rated Voltage* (V) | Rated Power (mW) | Reliability Level | Termination Type |
|--------------------|---------------------------------------|------------------------------|----------------|----------------------|--------------------|------------------|---------------------|--|
| Style 11 RM0402 | Thin Film PFC Series (TaNFilm®) | E, H, K, M | ±0.1% | 100R - 30K | 30 | 50 | C, M, P, R, S | Type 'B' Sn/Pb solder over nickel barrier |
| | | | ±1% | 49R9 - 29K | | | | |
| | | | ±2%, ±5% | 51R0 - 30K | | | | |
| | | | ±10% | 51R0 - 27K | | | | |
| Style 12 RM0603 | Thin Film PFC Series (TaNFilm®) | E, H, K, M | ±0.1%, ±1% | 10R0 - 59K | 50 | 100 | C, M, P, R, S, T | |
| | | | ±2%, ±5%, ±10% | 10R0- 56K | | | | |
| Style 06 RM0705 | Thin Film PFC Series (TaNFilm®) | E, H, K, M | ±0.1% | 10R0 - 125K | 50 | 150 | C, M, P, R, S, T | |
| | | | ±1% | 10R0- 124K | | | | |
| | | | ±2%, ±5%, ±10% | 10R0- 120K | | | | |
| Style 07 RM1206 | Thin Film PFC Series (TaNFilm®) | E, H, K, M | ±0.1% | 100R - 500K | 100 | 250 | C, M, P, R, S, T | |
| | | | ±1% | 10R0- 499K | | | | |
| | | | ±2%, ±5%, ±10% | 10R0- 470K | | | | |

*Note: Voltage shall not exceed $\sqrt{P \times R}$.

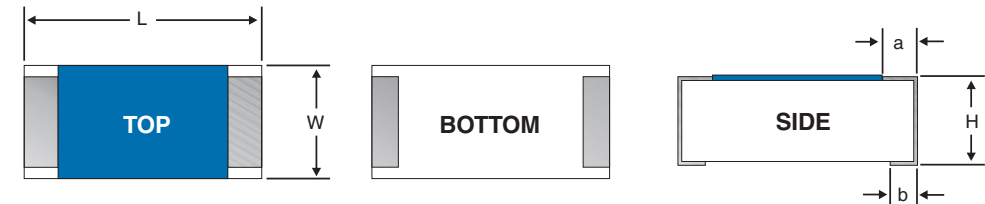
General Note

TT Electronics reserves the right to make changes in product specification without notice or liability.
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BI Technologies IRC Welwyn

www.ttelectronics.com/resistors

Physical Data



| | L | W | H | a | b |
|-------------|---------------|---------------|---------------|---------------|---------------|
| 0402 | 0.040" ±0.002 | 0.021" ±0.002 | 0.012" ±0.003 | 0.008" ±0.002 | 0.010" ±0.002 |
| 0603 | 0.063" ±0.004 | 0.031" ±0.004 | 0.020" ±0.004 | 0.012" ±0.005 | 0.015" ±0.005 |
| 0805 | 0.081" ±0.005 | 0.050" ±0.005 | 0.020" ±0.006 | 0.016" ±0.008 | 0.016" ±0.008 |
| 1206 | 0.126" ±0.006 | 0.063" ±0.005 | 0.024" ±0.004 | 0.016" ±0.008 | 0.016" ±0.008 |

Environmental Data

| Environmental Test MIL-PRF-55342 | Thin Film Performance | |
|-------------------------------------|-----------------------------------|----------------|
| | MIL-PRF-55342 Characteristic H | Typical IRC ΔR |
| Thermal Shock | ±0.25% | ±0.02% |
| Low Temperature Operation | ±0.25% | ±0.01% |
| Short-time Overload | ±0.10% | ±0.01% |
| High Temperature Exposure | ±0.50% | ±0.03% |
| Resistance to Solder | ±0.25% | ±0.01% |
| Moisture Resistance | ±0.40% | ±0.03% |
| Life | ±2.0% | ±0.03% |

Packaging

Standard packing for all styles is tape and reel in a quantity of 500 pieces.

Optionally the reel quantity may be 1000 pieces, and product level T (space) has an additional option of 300 pieces per reel.

A service of packing to waffle trays of 100 pieces is available for styles 12, 06 and 07.

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Ordering Procedure

Example: D55342H07B1E00S (Style RM1206, ±50ppm/°C, specification number 07, SnPb termination, 1kΩ, ±1%, failure rate 0.001%/1000 hours)

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D | 5 | 5 | 3 | 4 | 2 | H | 0 | 7 | B | 1 | E | 0 | 0 | S |
| 1 | | | | 2 | 3 | 4 | 5 | | | 6 | | | | |

| 1 Military Designator | | 2 Characteristic | | 3 Specification | | 4 Termination | | 5 Value & Tolerance | | 6 Product Level | |
|--------------------------|-------|---------------------|------------|--------------------|------|------------------|---------------|---|---|--------------------|--|
| M55342 | 0402, | E | 25ppm/°C | 11 | 0402 | B | SnPb | 4 character code. Letter code marks decimal position and indicates multiplier and tolerance - see table below. | C | Non-ER | |
| | 0603, | H | 50 ppm/°C | 12 | 0603 | | | | M | 1%/1000hrs | |
| | 0805 | K | 100 ppm/°C | 06 | 0805 | | | | P | 0.1%/1000hrs | |
| D55342 | 1206 | M | 300 ppm/°C | 07 | 1206 | R | 0.01%/1000hrs | | | | |
| | | | | | | | | | S | 0.001%/1000hrs | |
| | | | | | | | | | T | Space level | |

| Value & Tolerance Code | | Multiplier | | |
|---------------------------|------|------------|--------|-----------|
| | | x1 | x 1000 | x1000,000 |
| Tolerance | 0.1% | A | B | C |
| | 1% | D | E | F |
| | 2% | G | H | T |
| | 5% | J | K | L |
| | 10% | M | N | P |

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