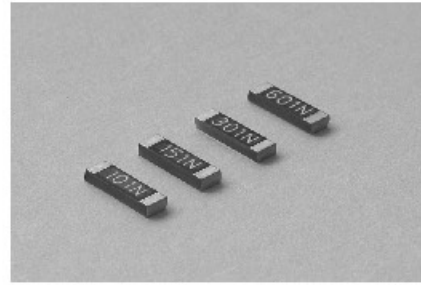


RF Power Resistors

Features and Applications

These components are designed for microwave applications and are available in wattages from 10-250W and ohmic values of 50-800ohms. Heat from the resistors can be extracted through back metal or flange to PCB or heat sink. The compact size and large power handling capability also have excellent RF characteristics. These units are RoHS compliant and are beryllium free. A 1% tolerance and 50ppm/C TCR ensure stable circuits. Applications include: RF Power amplifiers, RF power sources, fixed station for cell phones, RF measurement and terminations of circulators / isolators.



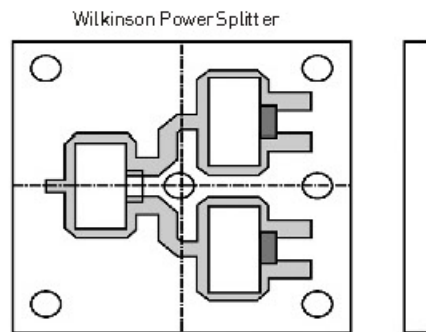
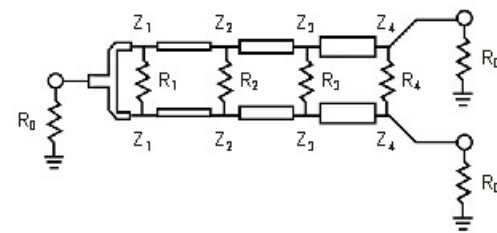
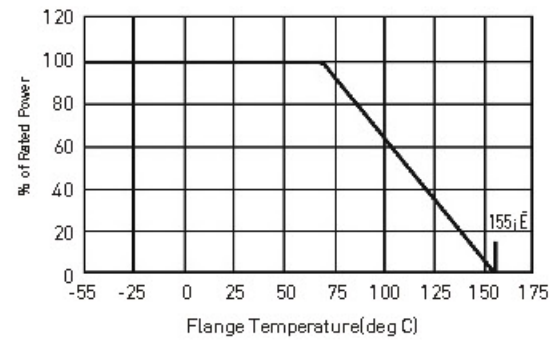
GENERAL SPECIFICATIONS

| Model | Power Rating with Heatsink [W] | Resistance[Ω] | Tolerance(%) |
|--------------|--------------------------------|---|--------------|
| TFH52, TFH72 | 10 | 50, 100, 150, 200, 250, 300, 400, 600, 800 | F(±1.0) |
| TFK52, THK72 | 10 | | |
| TFR010-0 | 10 | | |
| TFR050-0 | 50 | | |
| TFR100-0 | 100 | | |
| TFR250-0 | 250 | | |

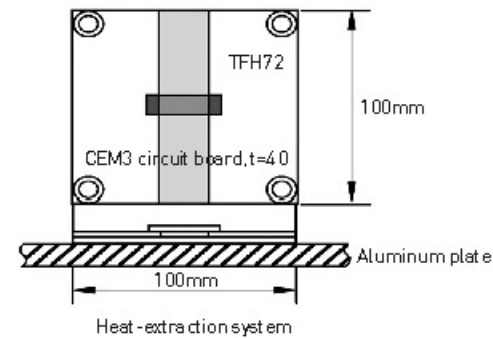
CHARACTERISTICS

| | TFH52, TFH72 | TFK52, TFK72 | TFR010-0 | TFR050-0 | TFR100-0 | TFR250-0 |
|----------------------|--------------|--------------|----------|----------|----------|-----------------|
| Temp. Coefficient | | | | | | ±50ppm/°C |
| Rated Ambient Temp. | | | | | | 70°C |
| Operating Temp Range | | | | | | -55°C to +155°C |
| Load Life | | | | | | ±0.5% |
| Humidity | | | | | | ±0.5% |
| Series Inductance | 3.2μH | 3.2μH | | | | - |
| Parallel Capacitance | <0.05pF | <0.05pF | | | | - |

DERATING CURVE & APPLICATIONS

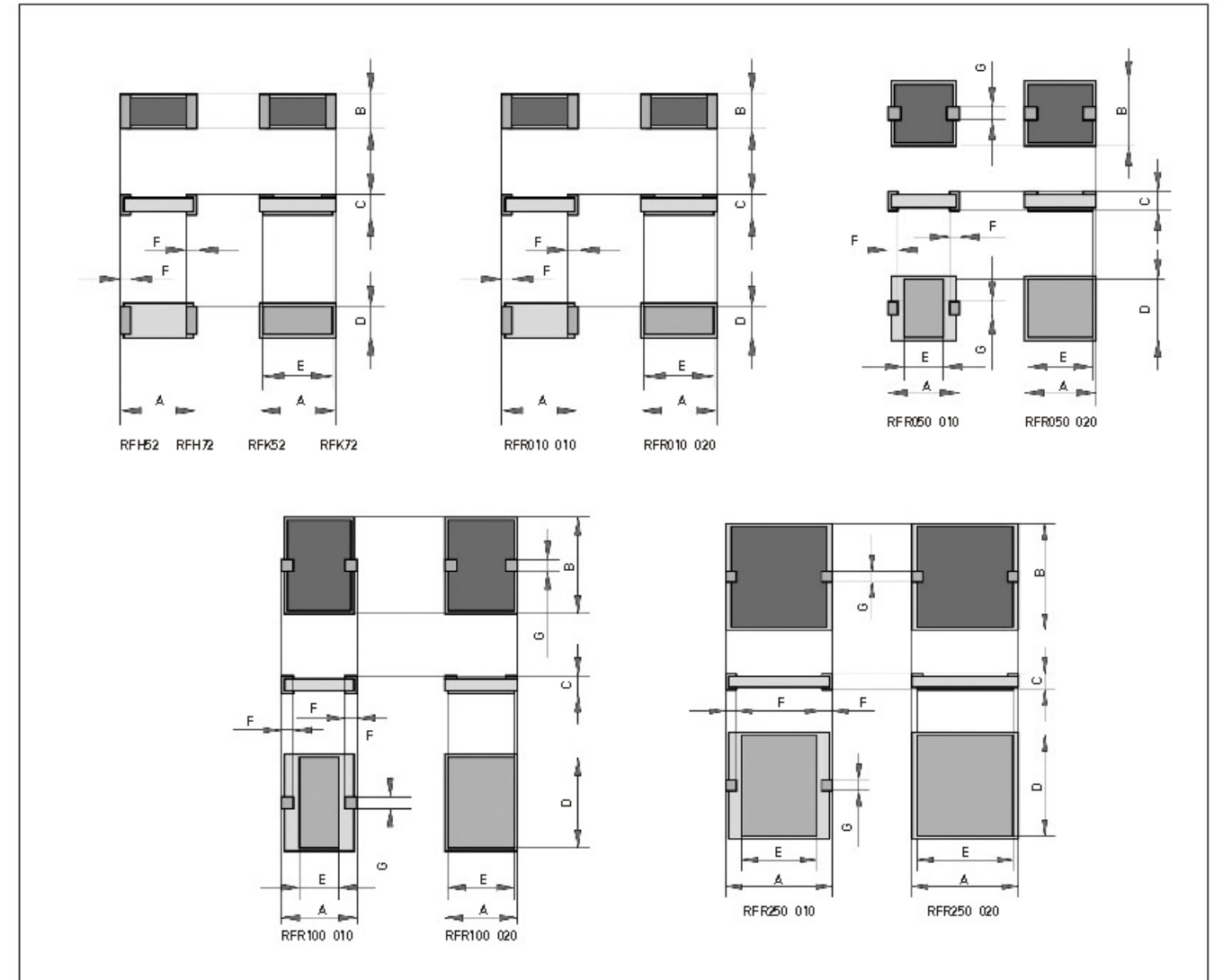


An application of TFH72



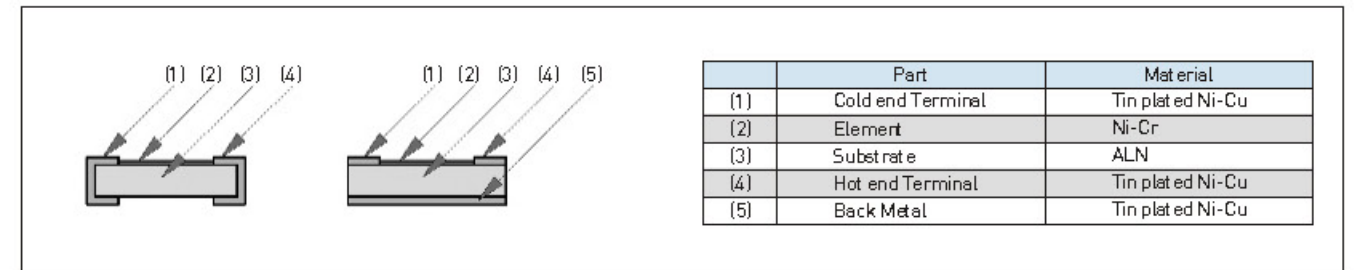
Heat-extraction system

DIMENSIONS (mm)

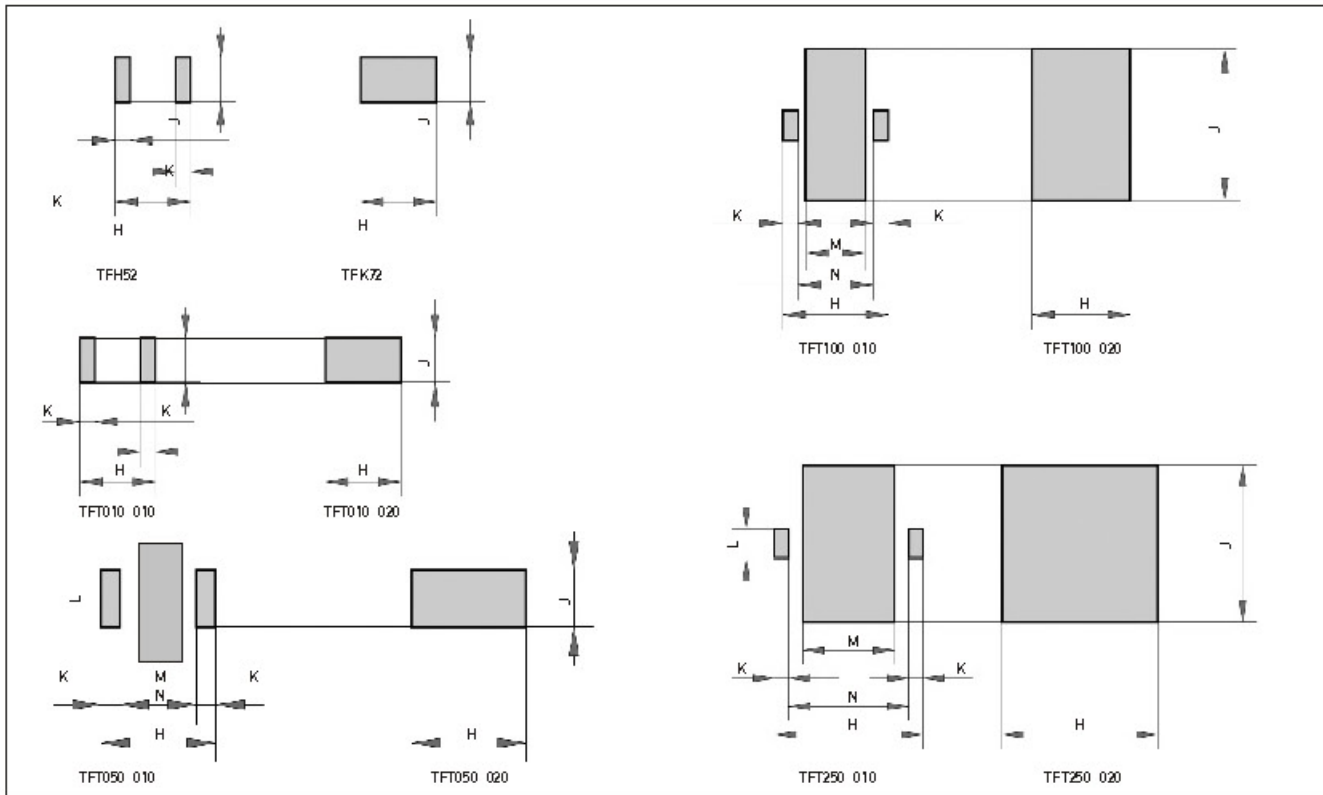


| Model | Power | A | B | C | D | E | F | G |
|------------|-------|------|------|--------|------|------|------|------|
| TFH52 | 10W | 5.0 | 2.5 | 1.2max | - | - | 0.8 | - |
| TFH72 | 10W | 7.0 | 2.0 | 1.2max | - | - | 0.8 | - |
| TFK52 | 10W | 5.0 | 2.5 | 1.2max | 2.3 | 4.8 | 0.8 | - |
| TFK72 | 10W | 7.0 | 2.0 | 1.2max | 1.8 | 6.8 | 0.8 | - |
| TFR010 010 | 10W | 5.08 | 2.54 | 1.05 | - | - | 1.27 | - |
| TFR020 020 | 10W | 5.08 | 2.54 | 1.05 | 2.34 | 4.88 | 1.27 | - |
| TFR050 010 | 50W | 5.08 | 5.08 | 1.05 | 4.84 | 2.00 | 1.27 | 1.27 |
| TFR050 020 | 50W | 5.08 | 5.08 | 1.05 | 4.84 | 4.68 | 1.27 | 1.27 |
| TFR100 010 | 100W | 5.84 | 8.89 | 1.05 | 8.49 | 2.54 | 1.27 | 1.27 |
| TFR100 020 | 100W | 5.84 | 8.89 | 1.05 | 8.49 | 5.45 | 1.27 | 1.27 |
| TFR250 010 | 250W | 9.52 | 9.52 | 1.05 | 9.12 | 6.00 | 1.27 | 1.27 |
| TFR250 020 | 250W | 9.52 | 9.52 | 1.05 | 9.12 | 9.12 | 1.27 | 1.27 |

MATERIALS



FOOT PATTERN

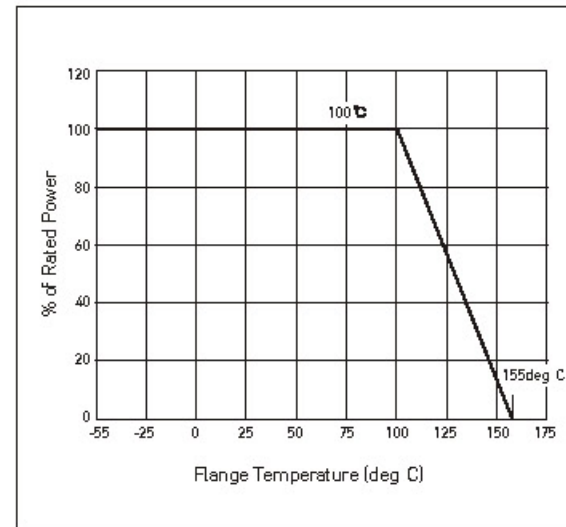
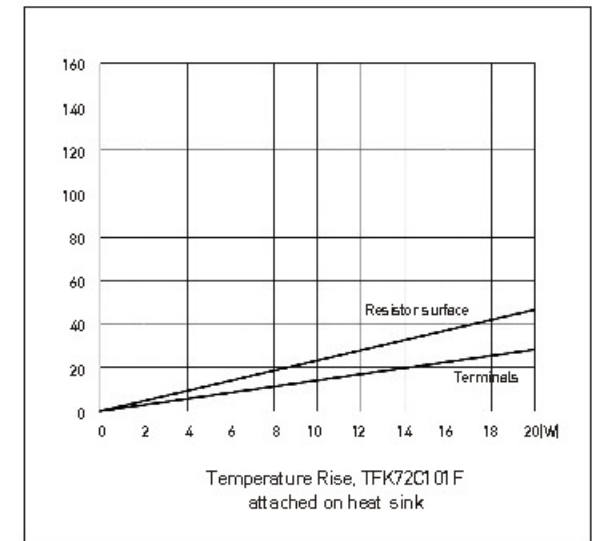
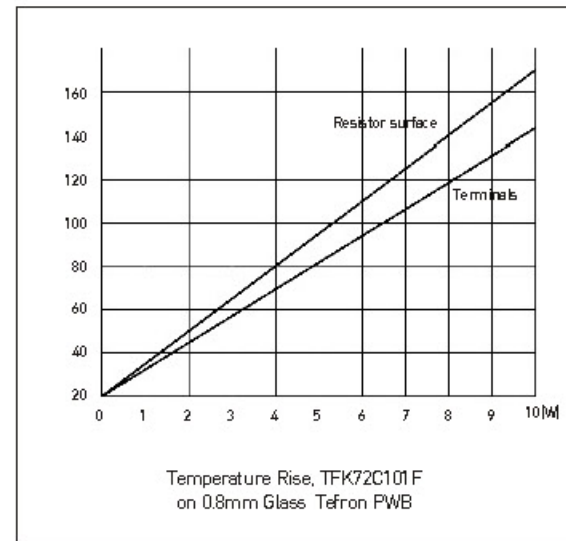


| (mm) | H | J | K | L | M | N |
|------------|------|------|------|------|------|------|
| TFH52 | 5.40 | 2.70 | 1.20 | - | - | - |
| TFH72 | 7.40 | 2.40 | 1.20 | - | - | - |
| TFK52 | 5.40 | 2.70 | - | - | - | - |
| TFK72 | 7.40 | 2.40 | - | - | - | - |
| TFR010 010 | 5.48 | 2.94 | 1.67 | - | - | - |
| TFR010 020 | 5.48 | 2.94 | - | - | - | - |
| TFR050 010 | 5.48 | 5.48 | 1.47 | 1.47 | 2.54 | 2.14 |
| TFR050 020 | 5.48 | 5.48 | - | - | - | - |
| TFR100 010 | 6.24 | 9.29 | 1.47 | 1.47 | 3.30 | 2.90 |
| TFR100 020 | 6.24 | 9.29 | - | - | - | - |
| TFR250 010 | 9.92 | 9.29 | 1.47 | 1.47 | 6.98 | 6.58 |
| TFR250 020 | 9.92 | 9.29 | - | - | - | - |

ORDERING PROCEDURE EXAMPLE

| Ordering Example | Model | Outlook | TCR | Resistance | Tolerance | Bulk/Tape | Remarks |
|-------------------------|--------|---------|-----|------------|-----------|-----------|-----------|
| TFH52 C200 0hmFZ 00 | TFH52 | | C | 200Ω | F | Z00-Z01 | Bulk-Tape |
| TFH72 C200 0hmFZ 00 | TFH72 | | C | 200Ω | F | Z00 | Bulk-Tape |
| TFK52 C200 0hmFZ 00 | TFK52 | | C | 200Ω | F | Z00 | Bulk-Tape |
| TFK72 C200 0hmFZ 00 | TFK72 | 010 | C | 200Ω | F | Z00 | Bulk-Tape |
| TFR010 010 C50 0hmFZ 00 | TFR010 | 020 | C | 50Ω | F | Z00 | Bulk-Tape |
| TFR010 020 C50 0hmFZ 00 | TFR010 | 010 | C | 50Ω | F | Z00 | Bulk-Tape |
| TFR050 010 C50 0hmFZ 00 | TFR050 | 020 | C | 50Ω | F | Z00 | Bulk-Tape |
| TFR050 020 C50 0hmFZ 00 | TFR050 | 010 | C | 50Ω | F | Z00 | Bulk-Tape |
| TFR100 010 C50 0hmFZ 00 | TFR100 | 020 | C | 50Ω | F | Z00 | Bulk-Tape |
| TFR100 020 C50 0hmFZ 00 | TFR100 | 010 | C | 50Ω | F | Z00 | Bulk-Tape |
| TFR250 010 C50 0hmFZ 00 | TFR250 | 020 | C | 50Ω | F | Z00 | Bulk-Tape |
| TFR250 020 C50 0hmFZ 00 | TFR250 | | C | 50Ω | F | Z00 | Bulk-Tape |

TEMPERATURE RISE & DERATING CURVE



FREQUENCY CHARACTERISTICS

