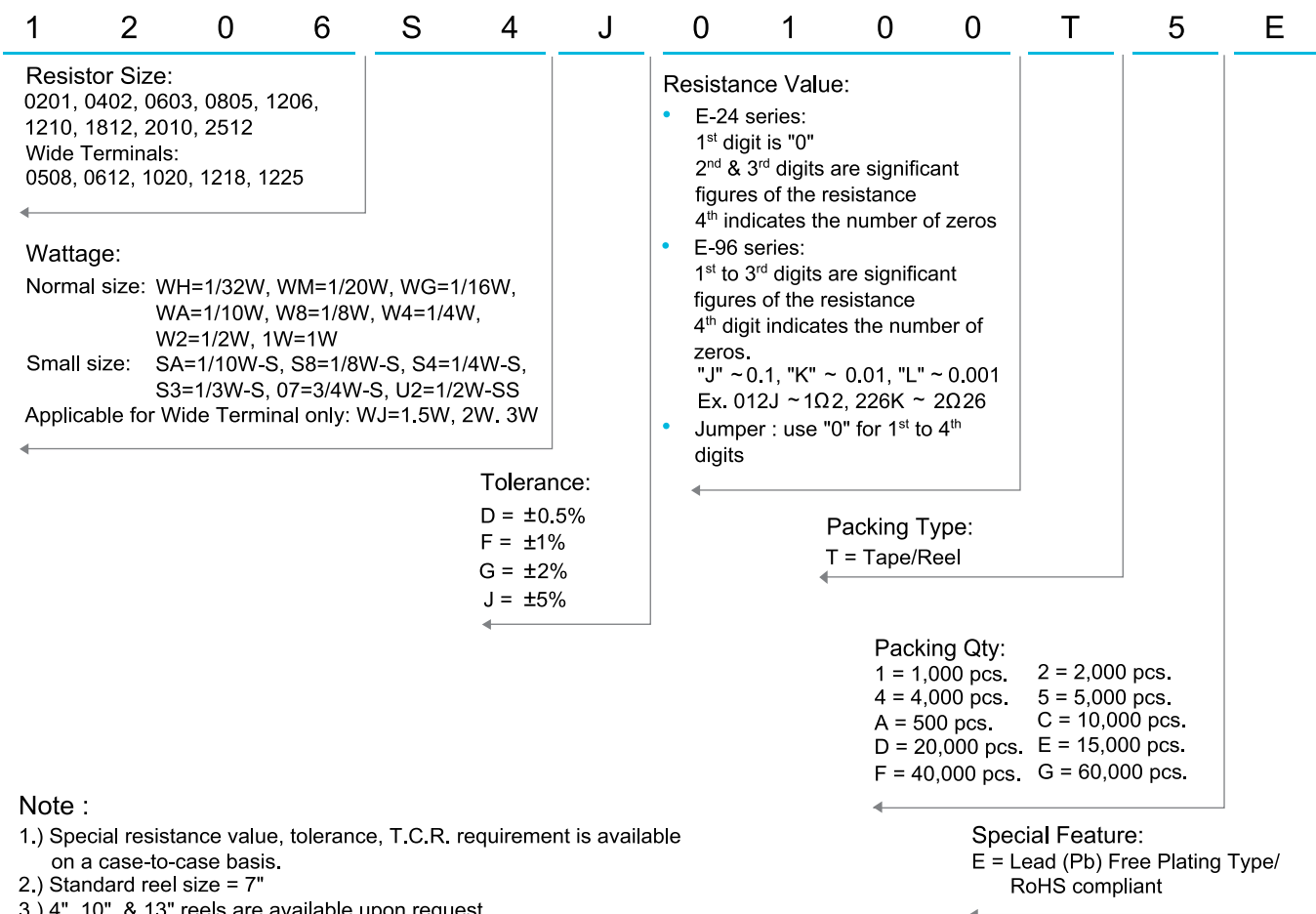


Thick Film Chip Resistors

Performance Specification

| | |
|---------------------------------|--|
| Temperature Coefficient | 0Ω1 ~ 0Ω99 ±800PPM/°C 1Ω ~ 10Ω ±400PPM/°C 10.1Ω ~ 100Ω ±200PPM/°C >100Ω ±100PPM/°C (0201: >100Ω ≤ ±200PPM/°C) |
| Short Time Overload | ±5%: ±(2.0% + 0.1Ω)Max ±1%: ±(1.0% + 0.1Ω)Max |
| Insulation Resistance | Min. 1,000 Mega Ohm |
| Dielectric Withstanding Voltage | No evidence of flashover, mechanical damage, arcing or insulation breakdown. |
| Terminal Bending | ±(1.0% + 0.05Ω)Max |
| Soldering Heat | ±(1.0% + 0.05Ω)Max |
| Solderability | Min. 95% coverage. |
| Temperature Cycling | ±5% : ±(1.0% + 0.05Ω)Max ±1% : ±(0.5% + 0.05Ω)Max |
| Humidity (Steady State) | ±5% : ±(3.0% + 0.1Ω)Max ±1% : ±(0.5% + 0.1Ω)Max |
| Load Life in Humidity | ±5% : ±(3.0% + 0.1Ω)Max ±1% : ±(1.0% + 0.1Ω)Max |
| Load Life | ±5% : ±(3.0% + 0.1Ω)Max ±1% : ±(1.0% + 0.1Ω)Max |

Ordering Procedure: Ex.: 1206, 1/4W-S, +/-5%, 10Ω T/R-5000



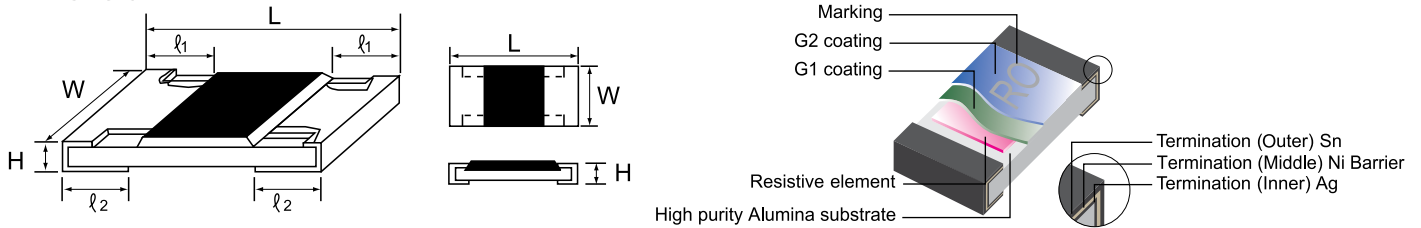
Thick Film Chip Resistors

Features

- Small size and light weight
- Suitable for both wave and reflow soldering
- Reduction of assembly costs



Dimension



| Type | Power Rating at 70°C | Max Working Voltage/Current | Max Overload Voltage/Current | Dielectric Withstanding Voltage | Tolerance % | Resistance Range | Dimension (mm) | | | | |
|-------------|---------------------------|-----------------------------|------------------------------|---------------------------------|-------------------|-------------------------------------|----------------|--|-----------|----------------|----------------|
| | | | | | | | L | W | H | l ₁ | l ₂ |
| 0201 (0603) | 1/20W | 0.5A | 1A | - | Jumper | <50mΩ | 0.60±0.03 | 0.30±0.03 | 0.23±0.03 | 0.10±0.05 | 0.15±0.05 |
| | | 25V | 50V | - | ±1% ±2% ±5% | 1Ω ~ 10MΩ 1Ω ~ 10MΩ 1Ω ~ 10MΩ | | | | | |
| 0402 (1005) | 1/16W | 1A | 2A | - | Jumper | <50mΩ | 1.00±0.10 | 0.50±0.05 | 0.35±0.05 | 0.20±0.10 | 0.25±0.10 |
| | | 50V | 100V | 100V | ±1% ±2% ±5% | 1Ω ~ 10MΩ 1Ω ~ 10MΩ 1Ω ~ 10MΩ | | | | | |
| 0603 (1608) | 1/10W-S 1/16W | 1A | 2A | - | Jumper | <50mΩ | 1.60±0.10 | 0.80 ^{+0.15} _{-0.10} | 0.45±0.10 | 0.30±0.20 | 0.30±0.20 |
| | | 75V | 150V | 300V | ±1% ±2% ±5% | 1Ω ~ 10MΩ 1Ω ~ 10MΩ 1Ω ~ 10MΩ | | | | | |
| 0805 (2012) | 1/8W-S 1/10W | 2A | 5A | - | Jumper | <50mΩ | 2.00±0.15 | 1.25 ^{+0.15} _{-0.10} | 0.55±0.10 | 0.40±0.20 | 0.40±0.20 |
| | | 150V | 300V | 500V | ±1% ±2% ±5% | 1Ω ~ 10MΩ 1Ω ~ 10MΩ 1Ω ~ 10MΩ | | | | | |
| 1206 (3216) | 1/4W-S 1/8W | 2A | 10A | - | Jumper | <50mΩ | 3.10±0.15 | 1.55 ^{+0.15} _{-0.10} | 0.55±0.10 | 0.45±0.20 | 0.45±0.20 |
| | | 200V | 400V | 500V | ±1% ±2% ±5% | 1Ω ~ 10MΩ 1Ω ~ 10MΩ 1Ω ~ 10MΩ | | | | | |
| 1210 (3225) | 1/2W-SS 1/3W-S 1/4W | 2A | 10A | - | Jumper | <50mΩ | 3.10±0.10 | 2.60±0.15 | 0.55±0.10 | 0.50±0.25 | 0.50±0.20 |
| | | 200V | 500V | 500V | ±1% ±2% ±5% | 1Ω ~ 10MΩ 1Ω ~ 10MΩ 1Ω ~ 10MΩ | | | | | |
| 1812 | 1/2W 3/4W-S | 2A | 10A | - | Jumper | <50mΩ | 4.50±0.20 | 3.20±0.20 | 0.55±0.20 | 0.50±0.20 | 0.50±0.20 |
| | | 200V | 500V | 500V | ±1% ±5% | 1Ω ~ 10MΩ 1Ω ~ 10MΩ | | | | | |
| 2010 (5025) | 3/4W-S 1/2W | 2A | 10A | - | Jumper | <50mΩ | 5.00±0.10 | 2.50±0.15 | 0.55±0.10 | 0.60±0.25 | 0.50±0.20 |
| | | 200V | 500V | 500V | ±1% ±2% ±5% | 1Ω ~ 10MΩ 1Ω ~ 10MΩ 1Ω ~ 10MΩ | | | | | |
| 2512 (6432) | 1W | 2A | 10A | - | Jumper | <50mΩ | 6.35±0.10 | 3.20±0.15 | 0.55±0.10 | 0.60±0.25 | 0.50±0.20 |
| | | 200V | 500V | 500V | ±1% ±2% ±5% | 1Ω ~ 10MΩ 1Ω ~ 10MΩ 1Ω ~ 10MΩ | | | | | |

Note:

- 1.) Metric information inside parenthesis.
- 2.) Standard Operating Temp (°C): -55 ~ +155
- 3.) Standard: E-96 series: 0.5%, 1%
E-24 series: 2%, 5%
- 4.) Low resistance range (0.1Ω ~ 0.99Ω) is also available for 0402, 0603, 0805, 1206, 1210, 2010 and 2512

Derating Curve

