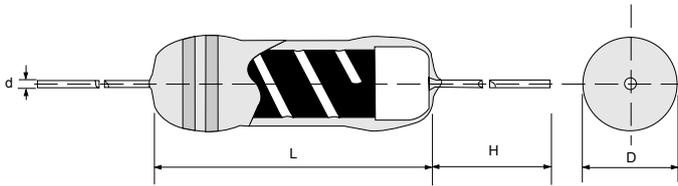


C3 - Composite Film-Type Ceramic Composition Resistor

Quality • Reliability
Cost-Down via Technology

C3



Features

- Innovative and cost-effective C3 technology
- Conforms to ANSI/AAMI norm EC53:1995/(R)2008 5.5.3
- Suitable replacement for ceramic composition resistors, which are required in most applications.
- Products meet RoHS requirements and do not contain substances of very high concern identified by European Chemicals Agency

DIMENSIONS

| Type | Body Length (L, mm) | Body Diameter (D, mm) | Lead Wire Length (H, mm) | Lead Wire Diameter (d, mm) | Net Weight Per 1000 Pcs |
|-------|---------------------|-----------------------|--------------------------|----------------------------|-------------------------|
| C3200 | 15.5 ± 1.0 | 5.0 ± 0.5 | 30 ± 3.0 | 0.80 ± 0.03 | 1150 Grams |

GENERAL SPECIFICATIONS

| Type | Power Rating (at 70°C) | Maximum Working Voltage | Maximum Permissible Surge Voltage | Minimum Resistance | Maximum Resistance | Resistance Tolerance | Available Resistance Values |
|-------|------------------------|-------------------------|-----------------------------------|--------------------|--------------------|-----------------------|-----------------------------|
| C3200 | 2W | 300V | 15kV | 33Ω | 22KΩ | ± 5%, ± 10%, ± 20% | E-6 / E-12 / E-24 |

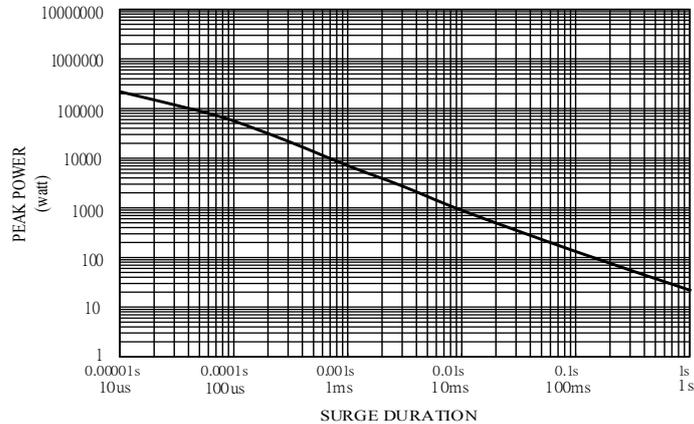
PART NUMBER

Example: C3200K1K00TKZTB500

| C3200 | K | 1K00 | TKZ | TB500 |
|-------|------------------------------|--|---|--|
| Type | Tolerance | Resistance | TCR | Packaging |
| | J (5%) K (10%) M (20%) | 1KΩ 4-character code containing - 3 significant digits 1 letter multiplier MULTIPLIER R = 1 K = 10 ³ M = 10 ⁶ G = 10 ⁹ | 3-character code TKZ = Default Product Temperature Coefficient. Information of typical product temperature coefficient can be found in the Technical Summary section of the datasheet. | 5-character code TB = Tape Box 500 pieces per box |

C3200

SURGE PERFORMANCE



TECHNICAL SUMMARY

| Characteristics | Limits |
|--|---------------------------------------|
| Power Derating, Linear | 100% at < 70°C, down to zero at 200°C |
| Dielectric Withstanding Voltage, VAC or DC | 800 |
| Temperature Coefficient, PPM / °C | -3000 (Typical) |
| Operating Temperature Range, °C | -55 ~ +200 |
| Insulation Resistance, MΩ | >10 ⁴ |

PERFORMANCE SPECIFICATIONS

| Characteristics | Test Conditions | Limits |
|------------------------------|---|----------------|
| Short Time Over Load | IEC 60115-1 4.13 5 seconds 2.5x rated voltage (not over 2x max working voltage) | ±2% |
| Load Life In Humidity | IEC 60115-1 4.24 56 days rated load at (40±2)°C and (93±3)% relative humidity | ±5% |
| Load Life 1,000 hours | IEC 60115-1 4.25.1 Rated load with 1.5 hours ON, 0.5 hours OFF, at (70±2)°C | ±5% |
| Resistance To Soldering Heat | IEC 60115-1 4.18.2 Leads immersed till 3mm from the body in (260±5)°C solder for 10±1 seconds | ±2% |
| Solderability | IEC 60115-1 4.17.2 Solder area covered after (235±3)°C / (2±0.2) seconds with flux applied | 90% Min. |
| Vibration | IEC 60115-1 4.22 Six hours in each parallel and axial direction with a simple harmonic motion having an amplitude of 0.75mm and 10 to 500 Hz. | ±2% |
| Thermal Endurance | IEC 60115-1 4.25.3 1000 hours at 200°C without load | ±5% |
| Thermal Shock | IEC 60115-1 4.19 -55°C 30minutes, +155°C 30minutes, 5 cycles | ±3% |
| Surge Test | Surge voltage = $\sqrt{120,000 \times P \times R}$ DC P is power rating, R is resistance value, surge voltage is not more than listed at right. Surge duration = 500ns Period = 2 sec Number of surges = 20,000 | C3200 15KV ±5% |